Ministry of Education and Science of Ukraine
Ternopil Ivan Pul'uj National Technical University
(full name of higher education institution)
Computer Information Systems and Software Engineering
(faculty name)
Computer systems and networks department
(full name of department)

EXPLANATORY NOTE

for diploma project (thesis)

Bachelor
(educational-proficiency level)

topic: _Content management system based on the Wordpress framework_

Submitted by: fourth year student   group   ICI-42

Specialism (field of study)

123 Computer Engineering
(code and name of specialism (field of study))

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Ternopil
2020

Ministry of Education and Science of Ukraine

Ternopil Ivan Pul'uj National Technical University

(full name of higher education institution)

Faculty   *Computer Information Systems and Software Engineering*

Department   *Computer systems and networks department*

Educational degree   *Bachelor*

Field of study   *123 Computer Engineering*

(code and title)

Specialism

(code and title)

APPROVED BY

Head of Department   *Osukhivska H.M.*

Assignment

FOR DIPLOMA PROJECT (THESIS) FOR STUDENT

Mulbah Gayflor Yanfay

(surname, name, patronymic)

1. Project (thesis) theme.   *Content management system based on the Wordpress framework*

Project (thesis) supervisor   *Leschyshyn Yuriy Zinoviyovych, PhD., Ass. Prof.*

(surname, name, patronymic, scientific degree, academic rank)

1. Approved by university order as of   22. 01. 2020 №4/7-59

2. Student's project (thesis) submission deadline   26.06.2020

3. Project (thesis) design basis

4. Contents of engineering analysis (list of issues to be developed)

5. List of graphic material (with exact number of required drawings, slides)

6. Advisors of design (thesis) chapters

Chapter	Advisor's surname, initials and position	Signature, date	
		assignment given	assignment accepted
Technical - economic assessment	*Kirich N.B., Proff. of Management and Administration Department*		
Occupational Safety and Health	*Lazaryuk V.V., Ass. Proff. of Welding Technology and Equipment Department*		

7. Date the assignment was given _____

PROJECT TIME SCHEDULE

LN	Diploma project (thesis) stages	Project (thesis) stages deadlines	Notes

Student _____ *Mulbah Gayflor Yanfay*
　　　　　　　　　(signature)　　　　　　　　　　(surname and initials)

Project (thesis) supervisor _____ *Leschyshyn Yuriy Zinoviyovych*
　　　　　　　　　(signature)　　　　　　　　　　(surname and initials)

SUMMARY

Content management system based on the Wordpress framework // Diploma Project // Mulbah Gayflor Yanfay // Ternopil Ivan Puluj National Technical University, Faculty of Computer Information Systems and Software Engineering, Computer Systems and Networks Department, group ICI-42 // Ternopil, 2020 // p. – 81 , fig. – 35, tab. – 5 , draw. – 6 , ref. – 14.

Key words: CONTENT MANAGEMENT SYSTEM, WORDPRESS, FRAMEWORK.

As the conclusion I would like firstly summarize the entire thesis. The main goal of this thesis is to design a CMS using WordPress . Firstly, in the main part I have discuss about CMS and WordPress, I also discussed the main component of CMS and WordPress and their functions. From the chapter one of this thesis also explained the some the CMS architecture, it also discusses the structure of the front-end and the data base diagram. In the second chapter of the thesis is basically understanding how to secure your website and the security system of WordPress.

CONTENT

Ch.	List	№ docum.	Sign	Date				
					CSDP 123.077.00 ПЗ			
Develop.		Mulbah G. Y.			Content management system based on the Wordpress framework	*Letter*	*Page.*	*Pages*
Supervisor		Leschyshyn Yu.						
Referee		Bodnarchuk I.O.						
N. Contr.		Stadnik N.B.				FIS, ICI-42		
H. of Dept.		Osukhivska H.M.			Explanatory note			

Ch.	List	№ docum.	Sign	Date			
						CSDP 123.077.00 ПЗ	*Page.*

INTRODUCTION

These days, a website is a fundamental piece of an association which makes an extraordinary segment of commitment in boosting business or carrying out information. Clearly, building up a website implies playing with codes. Notwithstanding, the ideas has changed after the development of the CMS (CMS). CMS (CMS) have made it simple to edit, create and update the content of a website. CMS has made it feasible for clients to keep up a site without having any idea of web coding. In this thesis project I centered around WordPress which has become the main CMS (CMS) around the world. Furthermore, this thesis will help you understand what CMS is and their components in general and how they work to make you website better and easy to change content on them. In the main part of the thesis I discuss the overview of WordPress CMS ,with some photos given for the understanding of the work of component in WordPress CMS, how they all work together to beautify your site. More over in this thesis project I will discuss on modifying the WordPress CMS to whatever you design you desire. From this project you will understand the procedure when it come to the designing of WordPress CMS and front-end designing. Final in this thesis project I going to enlighten you when it comes to security and protection of website and CMS and the economic benefit of using CMS in today society, how it creates cost reduction in your businesses or organization.

1 MAIN PART

1. OVERVIEW OF AN EXISTING CMS

1.1 Content Mangement System (CMS)

A CMS (CMS) is a software tool or application that gives a terminal for maintaining a website or webpages content by deleting functions, adding functions, editing, and publishing functions.

CMS are commonly used for two things:

1. enterprise content management

2. web content management.

Enterprise Content Management (ECM) basically gives a base to many clients in an aggregate situation organize to oversee reports, from the substance, of the board choices or download one from the open-source network showcase if such a module isn't introduced at this point. This can be practiced from anyplace with the web get to and a program.

CMS has at least two major components.

Content Delivery Application (CDA), it makes the item and revises the site and Content Management Application (CMA), as the front-end UI that allows a customer, even with obliged data, to incorporate works, change, and remove substance or limits from a website or webpage page without the help of a website specialist or designer. The standard CMS engineering includes web programming and a database, with a HTML webpage front-end that can be seen from an online site. The product part serves the sites or site pages and will appear like another HTML site, in any case, you might include a chairman passage or overlay that can be seen or access from the scene appeared to each client that use the website or an admin URL and it is normally in the background of the admin credentials. Different CMS software maintains their differences, some on them will grant the user to revise the web page from the same scene they are flipping through. While others will ask the user to design new content

with a personalized template. In the administrator panel, the user can edit, add content, or remove the content that has been displayed on the page. With respect to any facilitated site, when a client visits a location of a page structured or based on a CMS the entirety of the solicitation is sent to the webserver, which conveys the correct layouts that are expected to give the page as HTML and adding of any substance to it from the substance database. At that point, whatever data is returned as an answer to the program and the browser will then render it for the viewer or user. When you relate a site that does not have CMS, the site with CMS help you with the keeping webpage content enlightened or up-to-date, by doing this it reduces a significant amount of time and also the reduces the amount of effort that is needed to be devoted for instance post of new or changing content.

For instance, on a regular site, to make changes of the contents on a page with new text, a new image or adding a new function such as a quote box, the programmer will have to go into the HTML code of that page to change most of the code manually includes the links of the content, the many texts that are all over in HTML tags, and the programmer will have to design Or on the other hand, discover a module for the usage of the statement box and remember that for the page., not like this past scenario, a user who is an ignorant to coding or web designing, with just a little time of learning he/she can handle the platform, enter the admin interface select a particular page and content, then add a new page or content to change the old one and then give a permit to enable, the quotation box that I talked about previous, from the substance, of the board choices or download one from the open-source network showcase if such a module isn't introduced at this point. This can be practiced from anyplace with the web get to and a program.
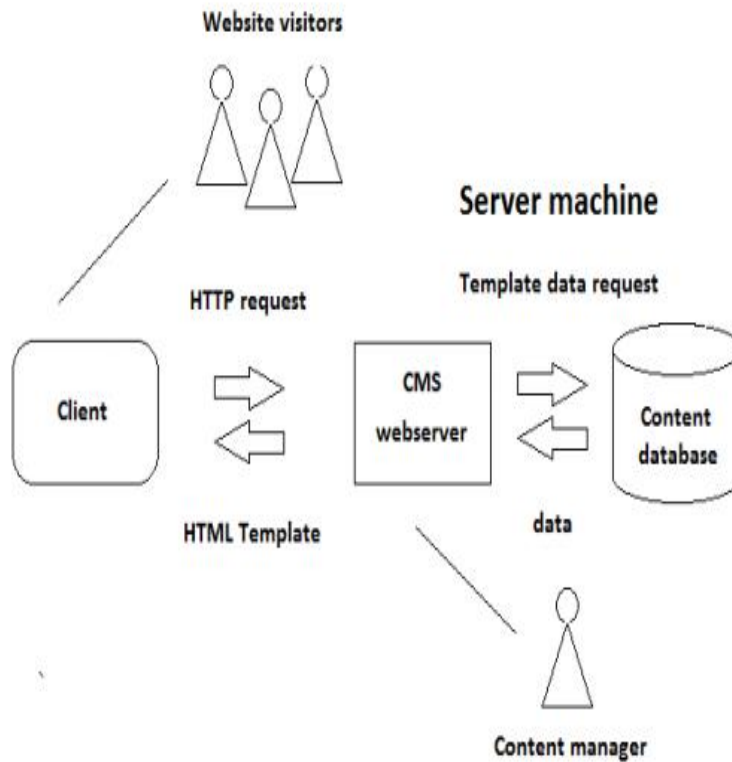
Figure 1.1 - CMS diagram

The digital asset management systems are another type of CMS manage content with the clearly defined author or ownership such as documents, movies, pictures, phone numbers, and scientific data.

There is additionally a part CMS, these are CMSs that oversee content at a medullar level as opposed to like pages or articles. CCMSs are regularly utilized in specialized correspondence where numerous distributions reuse a similar substance.

A normal CMS can be written in script languages like python or PHP and they are running on a server PC with webserver and database introduced. The scripting language utilized and the arrangement of good databases can change between various CMS. In the accompanying section, we present the diagram of existing CMS chose, at that point, we talk about what CMSs by and large are and how to accomplish the work. In light of a piece of the overall industry measurements, the most utilized or

mainstream CMS is WordPress, it has been utilized by over 35.7% of all sites on the web, and by 62.5% of all sites utilizing a known.

1.2 COMPONENTS OF CMS

CMS has its primary components and they are:

1.   Data Repository
2.   User Interface
3.   Workflow scheme
4.   Editorial tools
5.   Output utilities.

These component enable authors to carry on a task In one manner and in one zone (or a few), planning or changing substance; editors may utilize various apparatuses to interface with what the journalists submit, and monitor who\'s doing what; and the last altered substance, despite everything oversee in a similar storehouse, can be yield in an assortment of setups in an assortment of ways (for instance, a printed book, and a compact disc, and a site) every one of which may have various mixes of the substance organized in various manners however all of which draw from a similar database

1.2.1 Data repository.

It's likewise called a database, the information vault is the association of the substance to encourage access, refreshing, and re-dissemination. The particular association of the data will rely upon how it is to be gotten to, yet by and large, it will be separated to its least intelligent degree of granularity. The information store may be one of the business-social database results of changing size and power or a custom database. The arrangement of the data may be an SGML or even plain ASCII text. It might be gotten to from a neighborhood system, intranet, or the web, and security to control approved access must be thoroughly considered and included.

1.2.2 User Interface

The arrangement of screens used to collaborate with the information to make up the UI. Since a CMS is commonly coordination of a few items, it will use a few unique yet natural interfaces, explicitly those of web programs and word processors. Regularly those are utilized in the mix with custom interfaces intended to fit the particular procedure needs of an association or distribution.

1.2.3 Editorial tools

Word processors and SGML editors are key pieces of most CMS courses of action. They give gadgets that license content creation and modifying, similarly as a fluid-record structure that empowers the ceaseless treatment of the substance. The ideal course of action of article mechanical assemblies would allow journalists to work in an item space that they approve of, for instance, a word processor or substance apparatus, while holding fast to a couple of essential standards. That is desirable over a domain where the creator must be capable in SGML labeling for publication purposes. while a few creators may be fascinated by the functions of a labeling plan, most will be diverted by them, detracting from their substance center.

1.2.4 Workflow scheme

With a CMS, we generally realize what's going on with some random part of the substance. The work process conspires monitors every information component, its registration, and registration history, just as its variant history. That permits those minding the status of an article to know whether it has been gotten to, is being altered, has been submitted for duplicate altering, has been to come back to the creator for re-work, or has been acknowledged in its last structure. Moreover, the variant history tracks which rendition of the article has shown up in which distributions. Various forms stay available until the end of time. The work process plan can likewise produce custom reports to give status data in an assortment of arrangements. It permits the distributer to control (or if nothing else track) the substance and procedure.

1.2.5 Output utilities

The yield utilities take data in the information archive. For example, a channel may produce the Compact disc ROM adaptation of the substance in its last structure,

yet may create a print rendition in a halfway labeled structure to be sent to a typesetter for pagination. Some would contend that the yield utilities are the most significant piece of a CMS. others skirt them as a bit of hindsight. Actually, significantly subsequent to getting the information fit as a fiddle and giving access to it and control of it, without very much created yield utilities the substance isn't going anyplace. It is a confusion that once information is "media neutral" and in an information archive, the activity is finished. plainly, the activity is simpler. Be that as it may, not exclusively is it not done, it is genuinely simply starting.

1.3 WordPress

Bottom, WordPress is uncomplicated and one of the most famous ways to design your own website or blog. Literally, WordPress influence over 37.5% of all the websites or webpages on the internet today. Basically, more than one of the four websites that we visit today are probably powered by WordPress.

To some extent of the technical level, WordPress is an open-source CMS accredited under gplv2, meaning that anyone can customize or use the WordPress software for free. A CMS without needing to know anything about programming is basically a tool that makes it easy to manage important aspects of your website like the content.

The end result is that WordPress makes building a website accessible to anyone even people who aren't developers.

In this part of my thesis, I will focus basically on my WordPress CMS, I will explain in-depth about the component I used and what were they used for, I will also include photos of every step used in this thesis project.

Firstly, what are the components of WordPress and what are they used for?

1.3.1 The Admin Dashboard

As we get to use WordPress, we become very native with the admin dashboard. The Admin Dashboard is the interface we use to maintain or administer

almost all of our website aspects, from appearance and designing content to modifying your pages and adding new functions.

Firstly, when you login the first thing you'll see the admin dashboard panel that grants you easy entry to the main area or space of the admin interface. The dashboard panel fundamentally is divided into many pages and each of these pages is dedicated to a demanding aspect of our website. To operate or move between them you will have to use the menu located on the left side.

There is some choice with additional sub-pages, they will show up when you pass the cursor over that component. There are also a lot of screens that likewise factor bonus choice that is unknown by default, to be able to view them, you can use a menu in the top right called screen option. To open the area that has the options as to if you can disable or enable you will have to press screen option. Next to this, you'll also find the help option, which you can select to expand a section with more information about the current screen.

If you're ever lost or unsure about what the purpose of each page is, you can refer to this section for more details. we're also going to cover each major part of the dashboard throughout the rest of this article, so you'll know what to expect.

The photo below shows the admin dashboard and the menu on the left that help me navigate and modify my webpage.
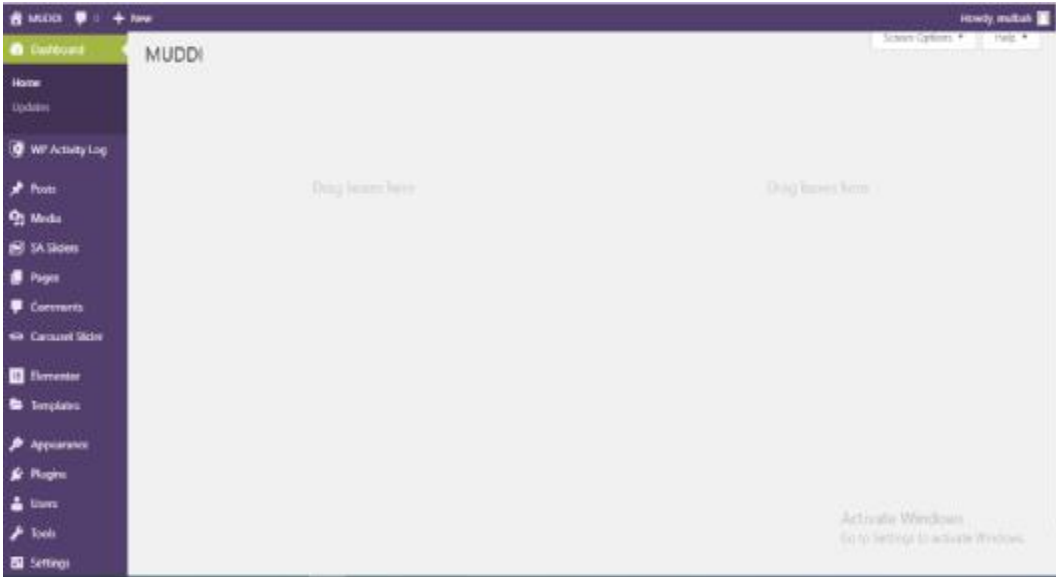

Figure 1.2 - The Admin Dashboard

1.3.2. Posts

When it comes to Posts they are a very important part of WordPress, they are used to design a distinct variety of functions. The post components are frequently applied for blogs, at a position where every single post take a place of a new revision. Notwithstanding, the posts component could be used for any appropriate or typical content, like photo galleries, news articles, and a lot more. In order to design a post, you'll need to work with the WordPress editor. This is how it looks now; I used the post component in WordPress to create and modify some functions on my webpage
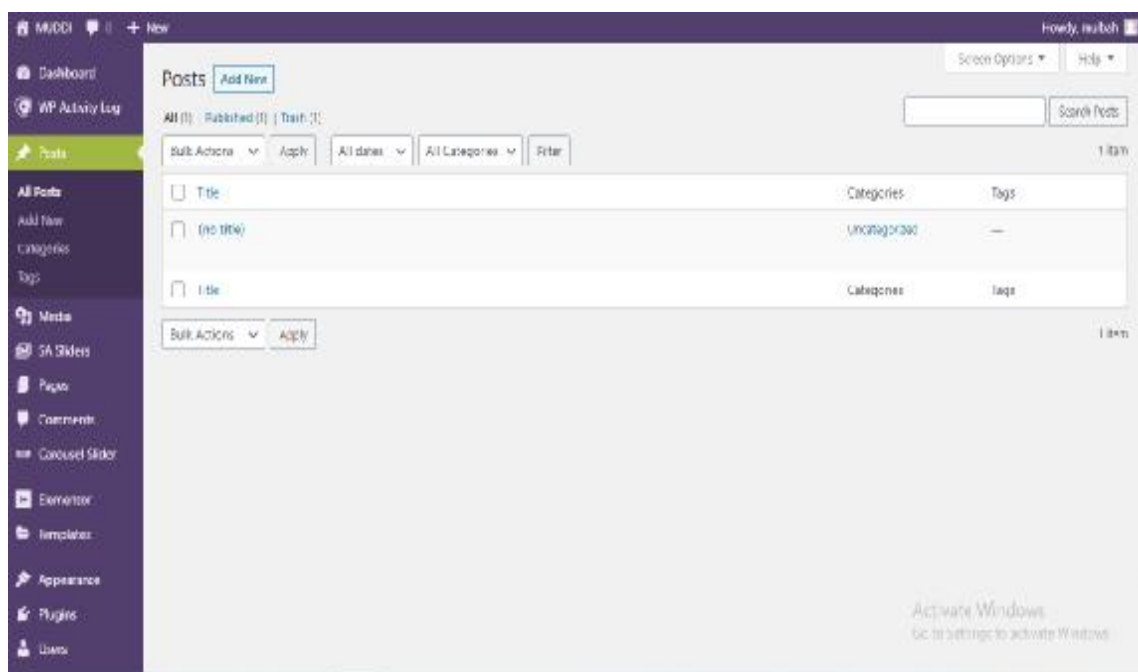

Figure 1.3 - Posts

We will refer to this interface for the purposes of this article.

But it will soon be replaced with an improved edition.

This will give you a completely different editing experience, so I highly recommend reading it up before the changes are implemented

Nonetheless, I am going to remain with the use of the classic editor.

Most of the options here are self-explanatory. you can add a title and enter your content, which can include text alongside different types of media. you can also

switch between a visual interface, which shows your post similar to how it will appear on the actual site, and a text editor that lets you include custom code. When you're done editing your post, you can save it in a few different ways. If you want to post it on your site, you can click on publish. However, you can also use the save draft instead. this will save the post but not make it public, enabling you to edit it further before it goes live. you are going to view at the all post display screen a list of the post if there were any published.

From those lists you can decide if you want to remove or delete things or post that you are interested in; you can as well use the preview to view how your post looks on the front-end and might as well want to edit some posts.

Here you can as well carry on a lot of activities for many posts, this will be extremely helpful when you start to include even fifty or more posts.

1.3.3 Pages

Post and WordPress pages are identical in some way, they are both design and compile using the related interface.

The difference is based on how they are used. pages are remained static and usually hold contents that rarely have any changes. in comparison, if the content has information about a brand, like WordPress hosting it might be a page. Page make up the framework of your site usually you need a home page or blog archive the pages are not restricted mostly based on the goal of your project. In many ways, WordPress pages are very similar to posts. they're both created and edited using the same interface (which we covered in the previous section) and can contain the exact same types of content. So, what makes pages different?

The main difference is how they're used on your site. Pages are mainly intended to hold static, more timeless content that is unlikely to change regularly. for example, if you want to post an article or a piece of news, such as the coronavirus pandemic, you'd use a post. In contrast, if the content contains static information about your company or one of your products, like WordPress hosting, it should be a page.

Pages are also what makes up the structure of your site. as such, you need at least one, which is usually a home page or a blog archive. however, you can add any number of pages, depending on your site's purpose. some common examples include an about us page with information about your company or organization, a page containing your privacy policy, and a contact page so visitors can communicate with you.

In the photo below you see the will show you how I added the about page and how it looks on the website after publishing.
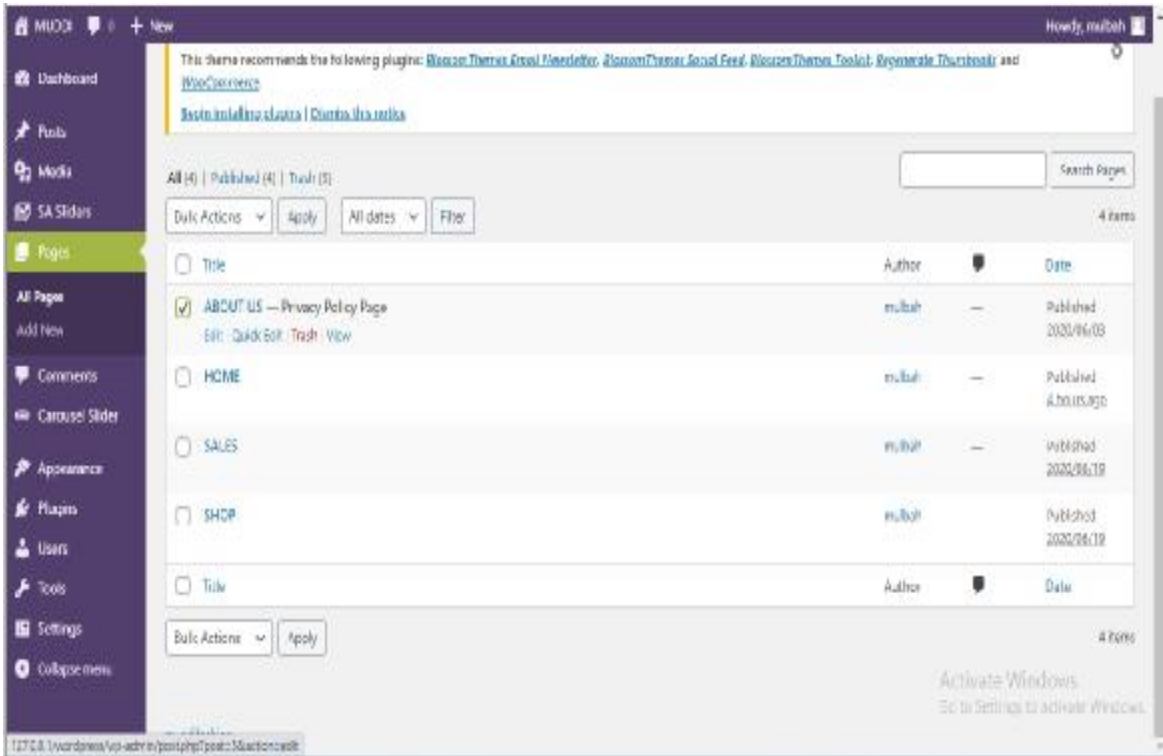

Figure 1.4 - VIEW OF PAGES

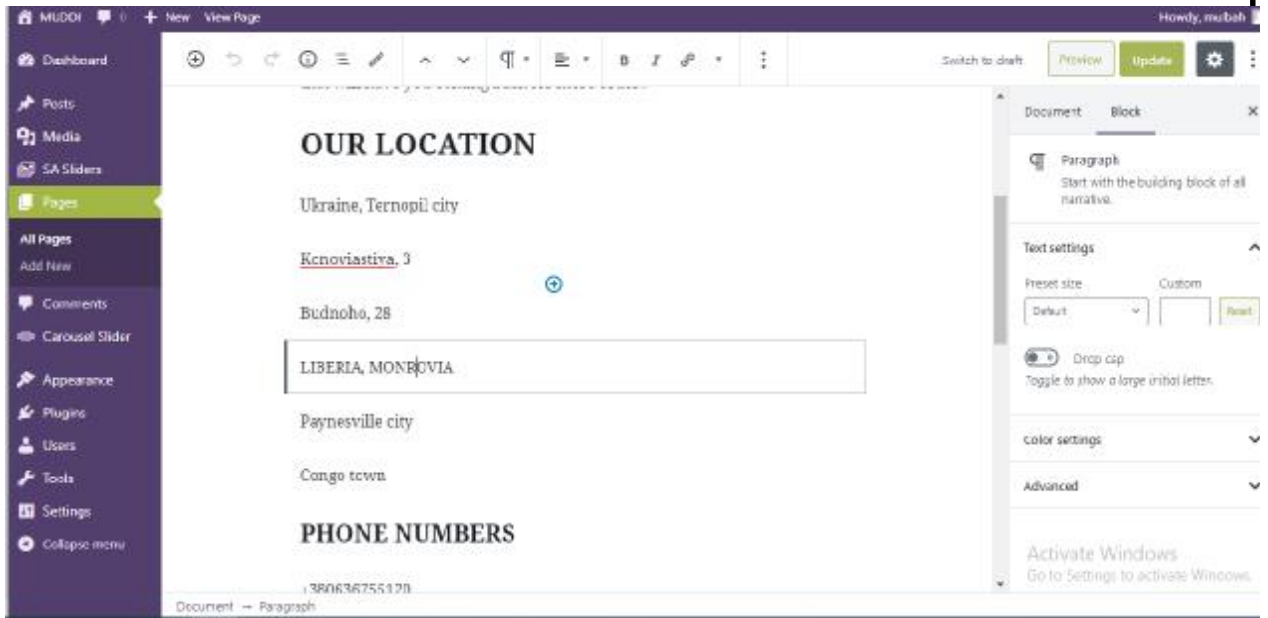This photo below shows, when the about page was being edited.

Figure 1.5 - VIEW OF ABOUT BEING EDITED

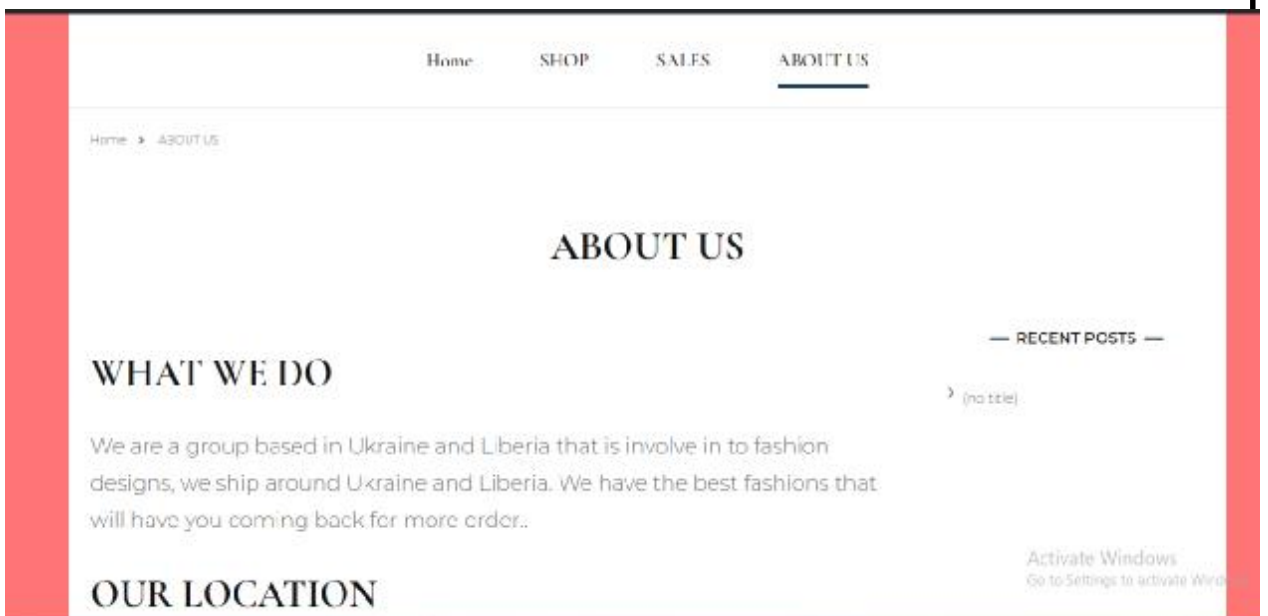This photo below is the look of the page was published on the site.

Figure 1.6 - VIEW OF THE PUBLISH ABOUT PAGE.

1.3.4. Plugins

WordPress being the most famous website development platform around the world today is due to one of the largest reasons, it is the WordPress plugin.

From just a few clicks you can induct the software into your site, which you don't need any technical know-how.

One of the greatest aspects of the WordPress plugin is that they are utilized slightly to get almost everything done. There are plugins that include slight new features or updates to your website or webpage.

Some slight feature added can be dark mode feature, this feature can adjust the color of the admin panel or dashboard. Moreover, there are some other plugins that entirely influence your website. To enable the functionality of the plugin on your webpage, you will have to activate the plugin.

The photo below will show you how I installed and used some plugin in my project to add some features to my site.
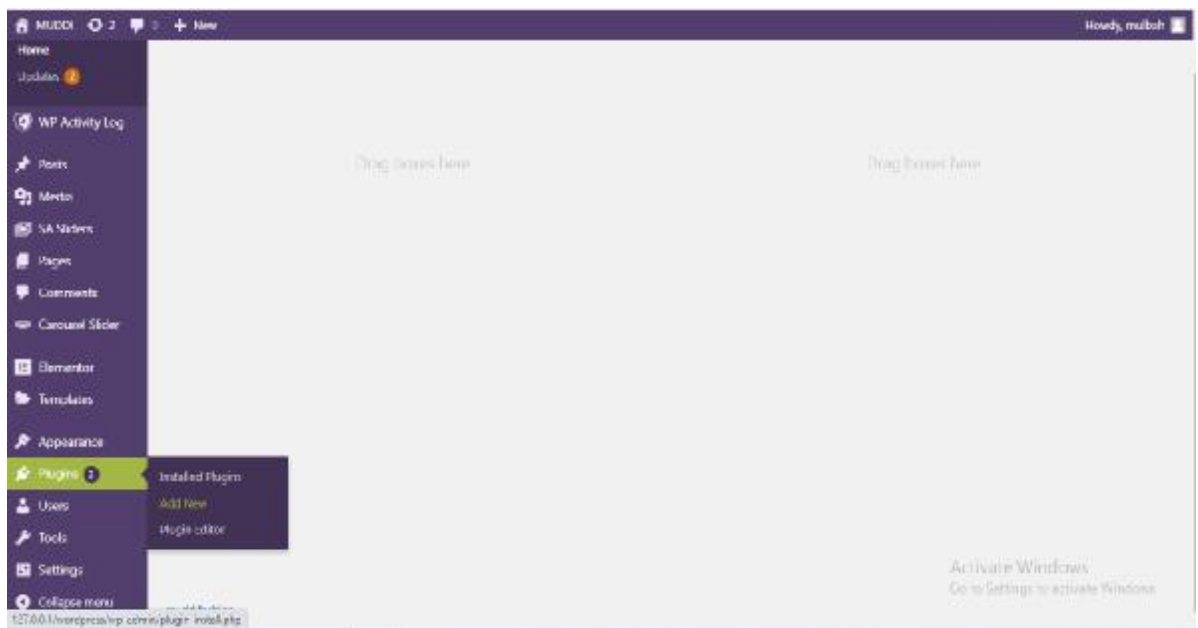

Figure 1.7 - VIEW OF INSTALLING PLUGIN

The photo below show some of WordPress plugin that you can install to modify your site.
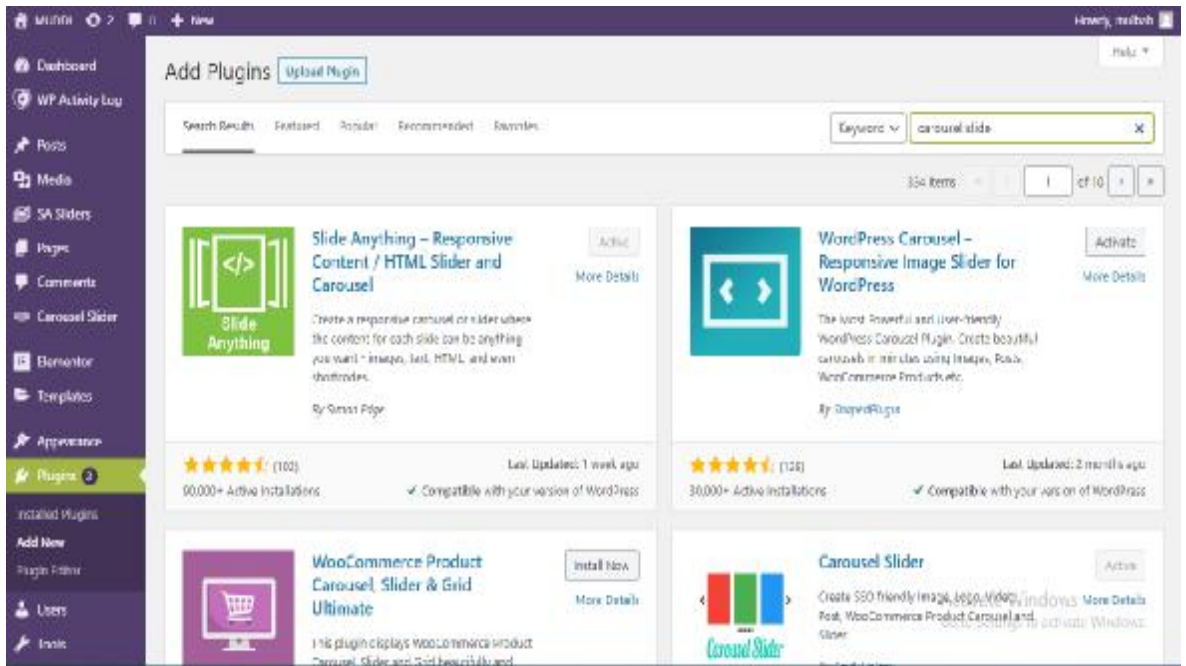
Figure 1.8 - VIEW OF VARIETY OF PLUGIN

The next photo below after the used of the carousel slide plugin I installed.
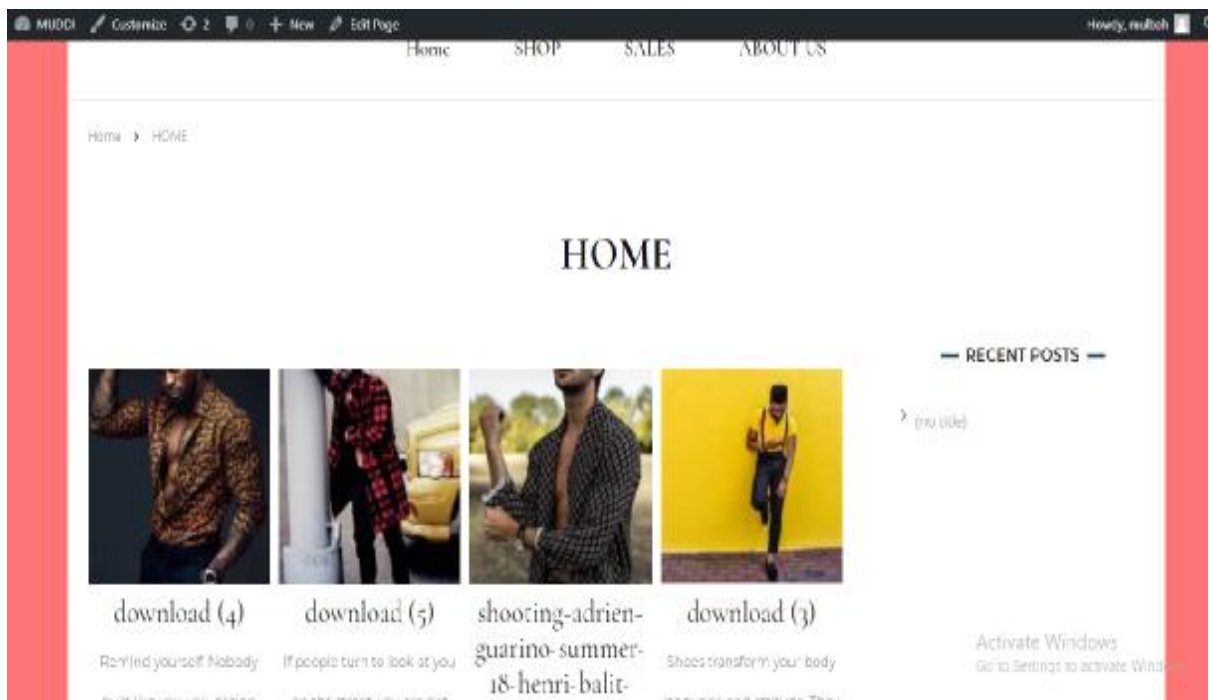

Figure 1.9 -   VIEW OF THE PLUGIN BEING USED

1.3.5 Themes

The look of your site changes based on the theme of WordPress. it's envisaged as your site's, which fathom how your content is an exhibit on the front-end. a set of default theme includes WordPress, which is basically used by beginners, never the less, you will likely want something common.

Luckily a lot of free WordPress themes are available and it can be gotten straight from your admin dashboard, you can start by accessing your present themes by its look. howbeit, you can activate the theme you want to use on your website. in so doing, if you need more option you can easily add a new WordPress theme directory to your browser. there you will have access to lots of free options, that you can be able to preview how they will look on the

Front-end or web page.

If you want to add a theme to your site, you can install them. once you have the new theme in place, you can compose it by going to the appearance and then customize it. by that, it helps us make a difference to your theme and view the result it will have in the real-time. Once you're pleased you can just publish it to see changes.
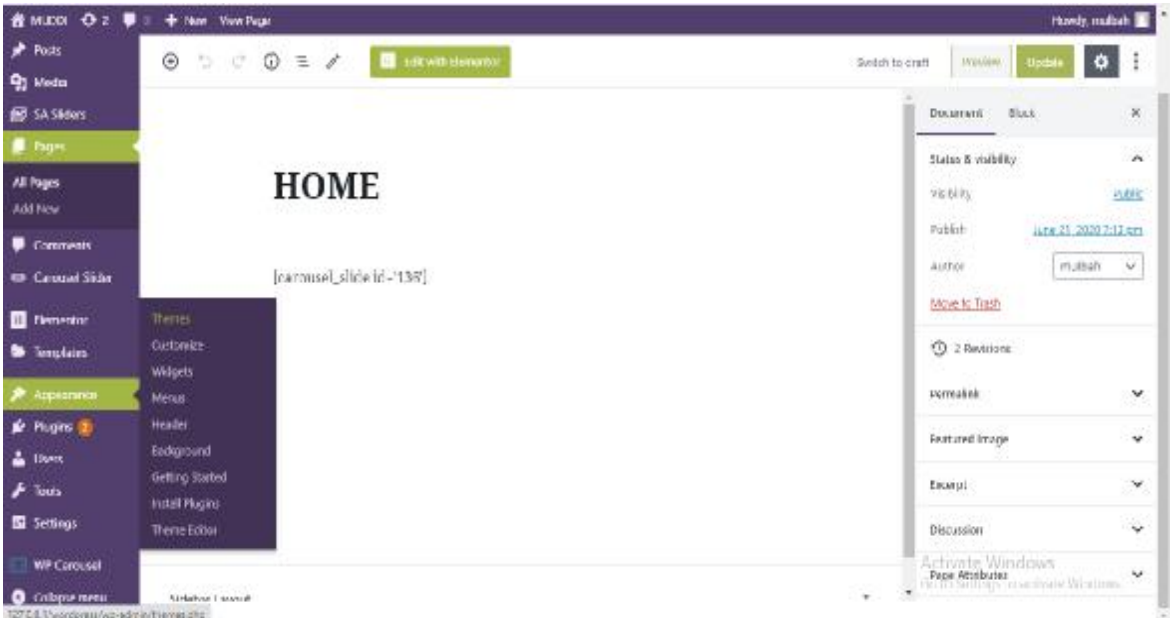

Figure 1.10 - VIEW OF THE HOME PAGE

The next photo is the view of different theme you can choose for your site.
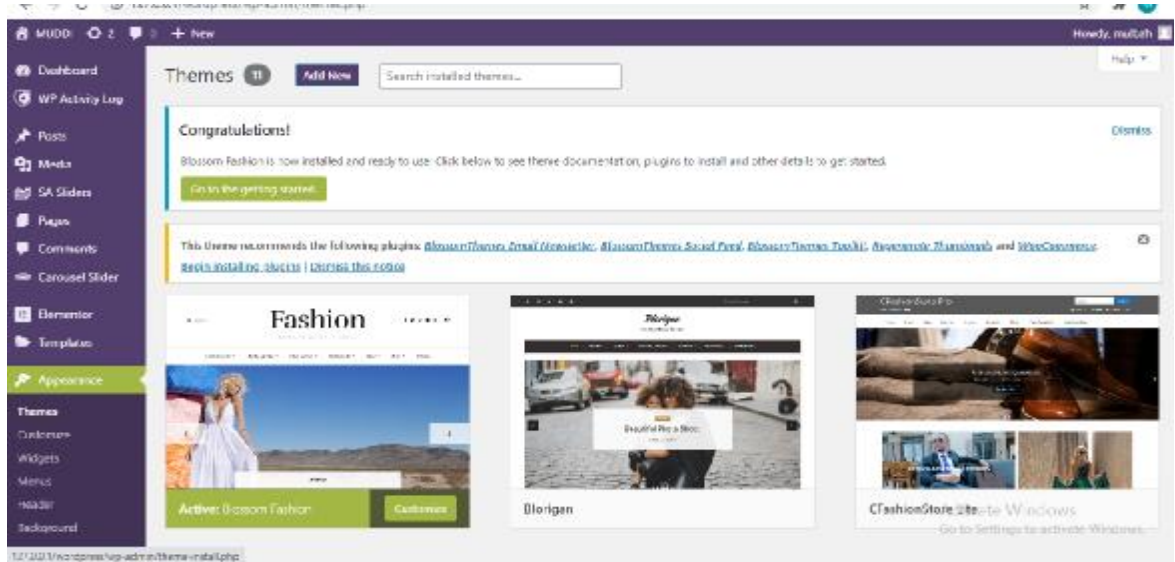
Figure 1.11 -   VIEW OF THE VARIOUS THEMES

1.3.6 CATEGORIES

In WordPress, you used labels to categorize and organize content, making it smooth for others to access your site.

For instance, you can have new posts in a category, which have them sub-categories for the usage of industries, events, and companies' news. All the category you design generate automatically a page, that will access all post assigned to the category to a post, the content will then appear on the categories you assigned to a post from its content editor can be introduced. You will see how you can also create a new category right here. All needed is you clicking on add new category and then enter your name or whatever you want to write. You can create a sub-category by selecting a parent category by navigating to posts categories. Also, you can create a new category and as well as editing and deleting existing ones.

Figure 1.12 -   VIEW OF THE CATEGORIES PAGE
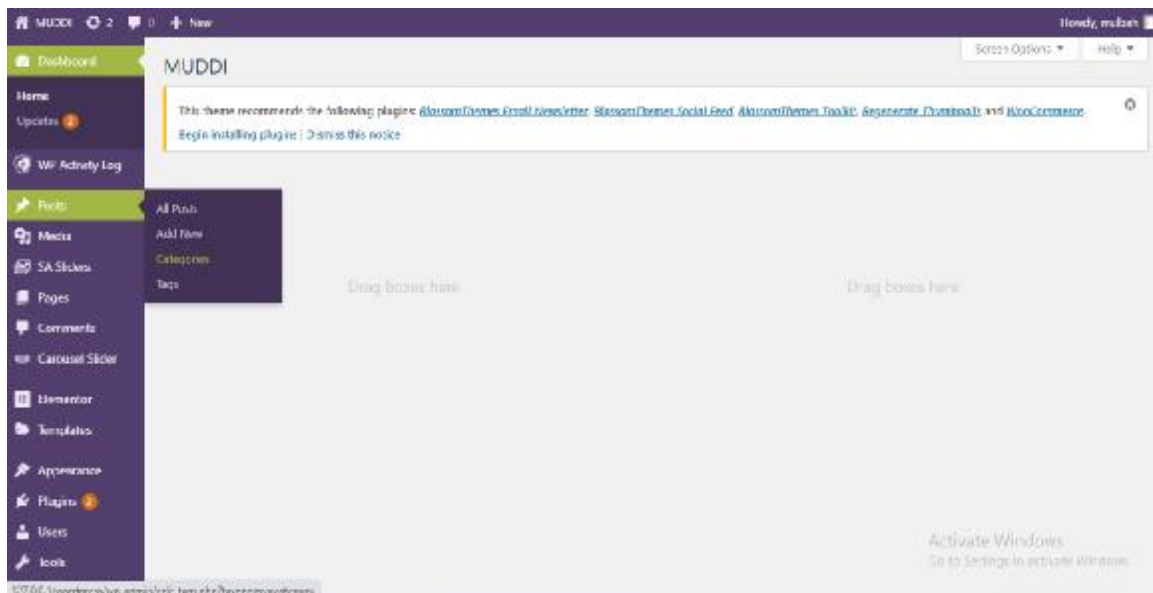
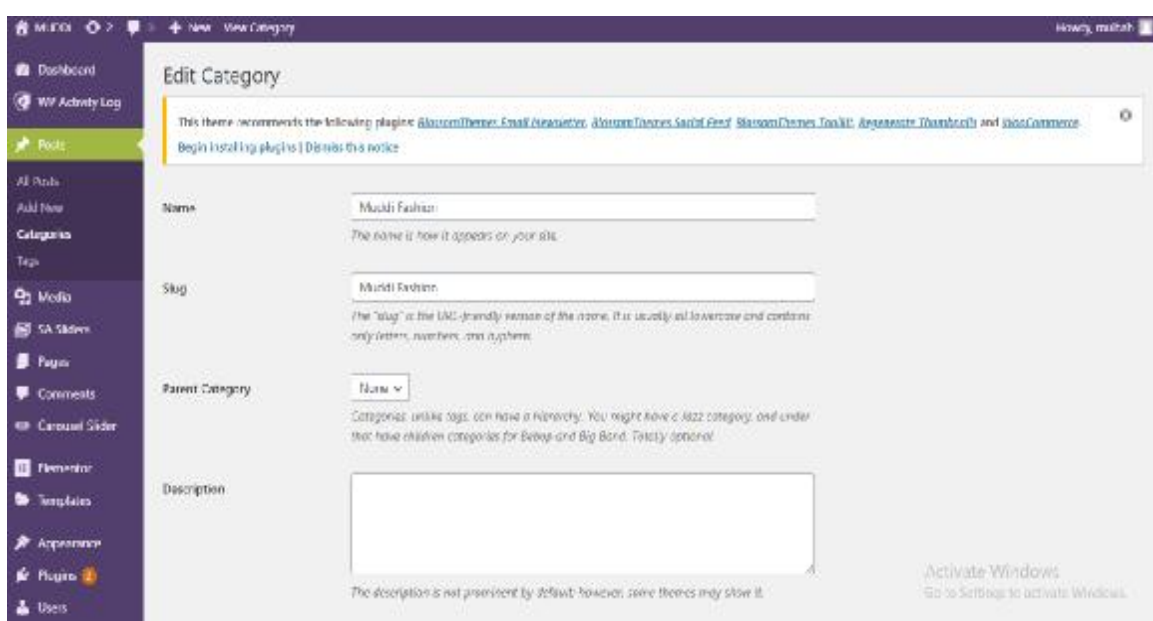This photo below shows the editing of the Category section on the site.

Figure 1.13 -   VIEW OF THE CATEGORIES BEING EDITED

1.3.7. Tags

In comparison to categories, they have similar characteristics. Tag is formed to constructs but their management is kind of distinctive, although categories are bored and sometimes specify the type of contents or the generic subject matter of a post.

Tags are definite. they are sometimes used to pinpoint subjects and keywords that are relevant to a post. In terms of categories, each tag individually has its personalized page, users easily find content related tags are not stratified which means they do not have parents or sub-tag.

They are usually combined with posts like categories. Tags are usually positioned right underneath categories in the editor interface. They are added by entering it into the text field it also allows multiple tags simultaneously by dividing them with a comma your tags can be range by accessing post.

1.3.8. The Media Library

In the meantime, while the text is an important part of any website, you'll maybe want to include some additional media. Images are most common on websites, but maybe you will also want to add videos, audios, or some documents. This library is used for storing all of your media files that are on your site. Adding one or more files is not as complicated it is just as dragging and dropping them from a local folder into the page.

Files will be connected and inducted to the library. once the file is added to the library, they can be put into pages and posts, when you click on the add media button. when the button is clicked there is a pop-up window that opens the library where you can place the documents you desire.

From here, you can also edit files and set various properties for them, such as 'alt' text.

The photo below shows how the library looks.

Media Library
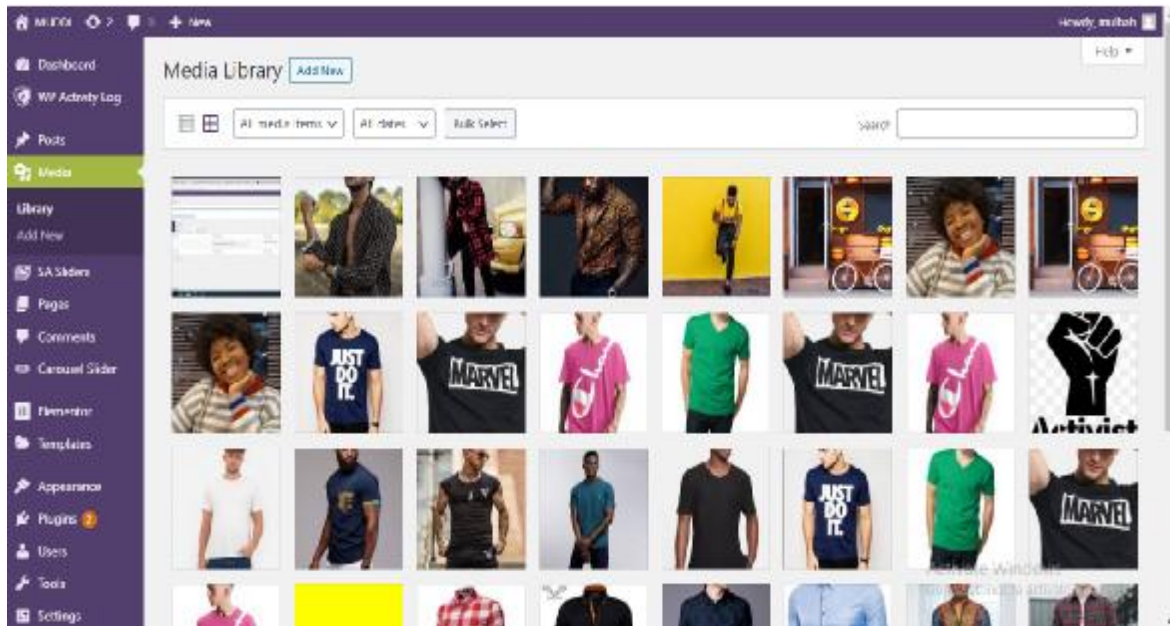
Figure 1.14 - VIEW OF THE MEDIA LIBRARY

1.3.9. MENUS

The primary form of navigation on the site. it relies on a lone menu; you can organize several menus and insert them in distinctive locations.

to administer your menu, select appearance then menus. If you want to build a contemporary menu; you only need to enter a name and then click to create a menu. once done, you will get to choose the pages that should be included in the menu and where you want it to emerge. an alternative to adding menus to a site is called a widget.

The photo below shows how the add menu and edit menu looks.

Adding Menu

Figure 1.15 - VIEW OF MENU BEING ADDED

Editing Menu

Figure 1.16 - VIEW OF MENU BEING EDITED

1.3.10. WIDGETS

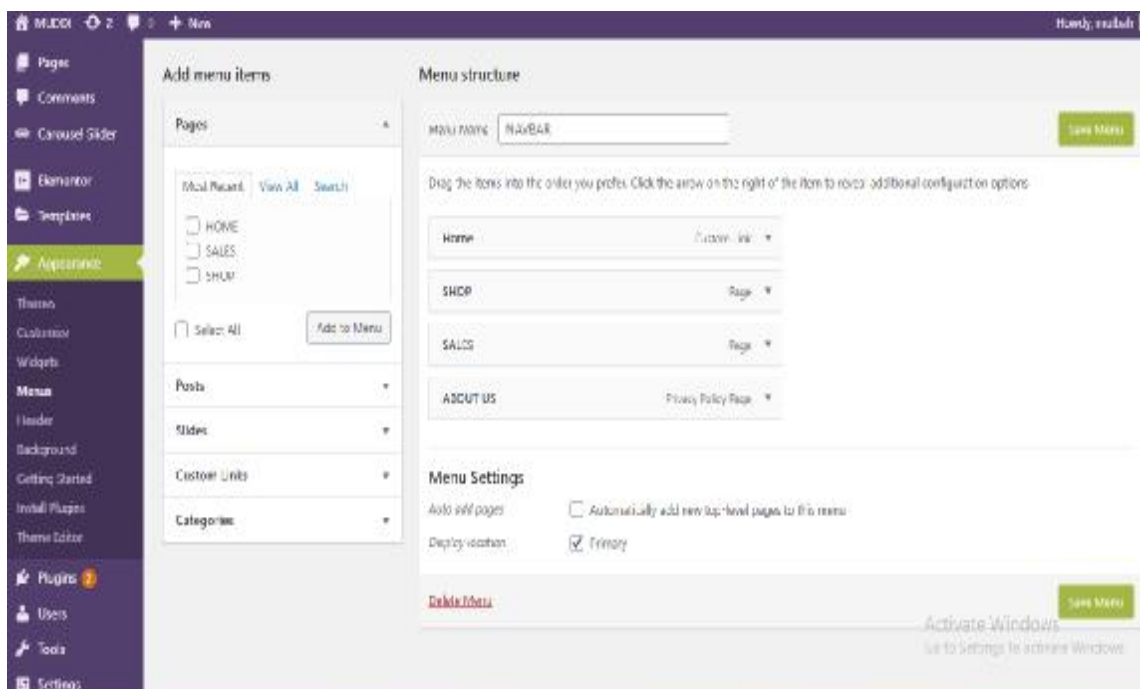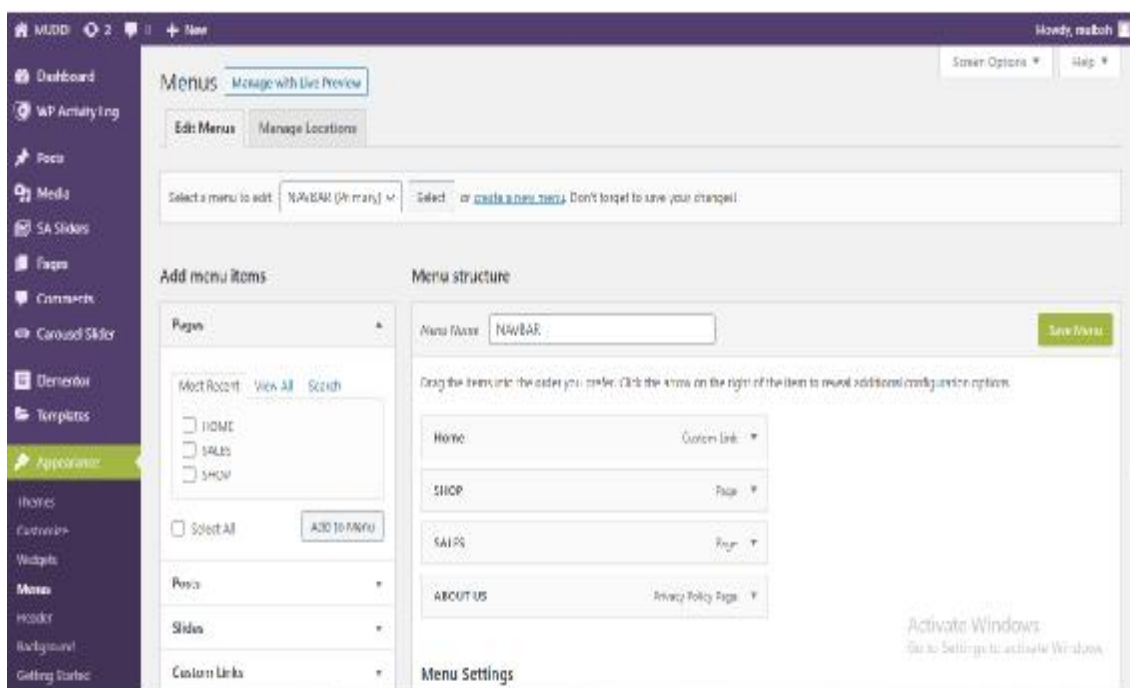Are components or content types that are added to precise places on a website. the location is known as the "widget area "and is identified by their theme. The most commonly used widgets are sider and footer. They usually add small effective features to the site. WordPress has some widget by default, added by the plugin. to add a widget to your website, start by selecting appearance, and then widget. the accessible widget is mostly found on the left, while the places they are to be are found on the right. they are added by dragging and dropping once done you can arrange the widget. they are saved consequently when added or edited.

This photo below shows the view of the Widget section.
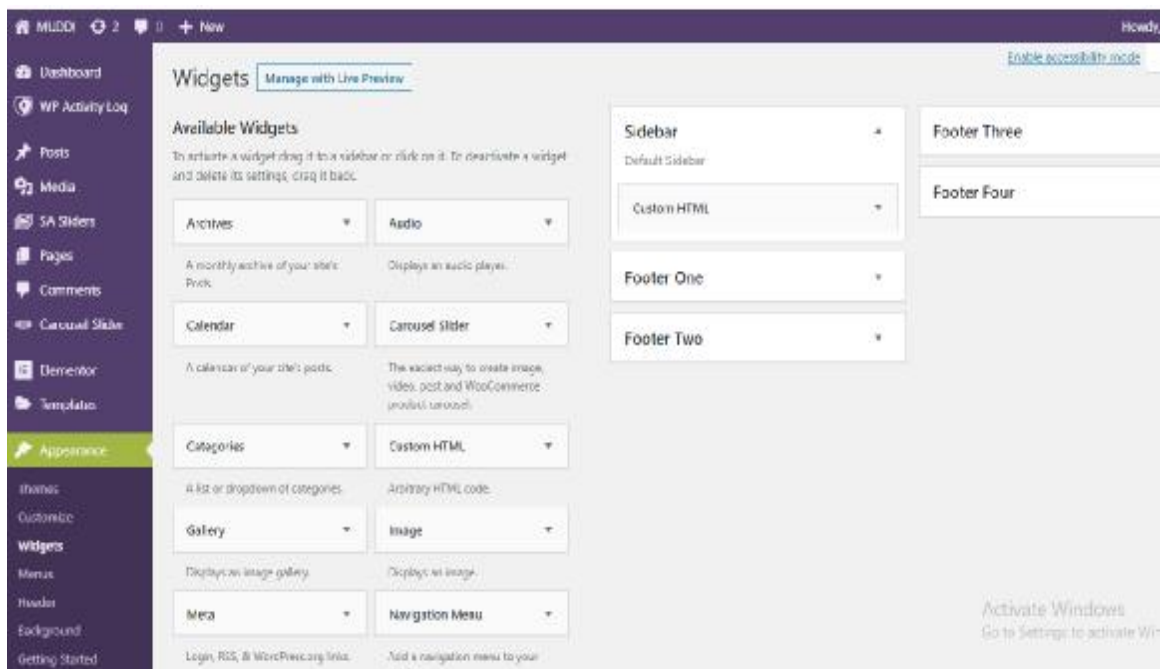
Figure 1.17 - VIEW OF WIDGET PAGE

1.3.11. THE DATABASE

Now a day database is needed to store content and data to every site and WordPress is of no exception. In fact, all content on my site holds databases, including users, pages, comments, tags, categories post, and so on. the database is the most vital part of my site; the database can't typically be managed directly through the admin panel. however, users don't have to worry about the database, unless there is a problem with it.
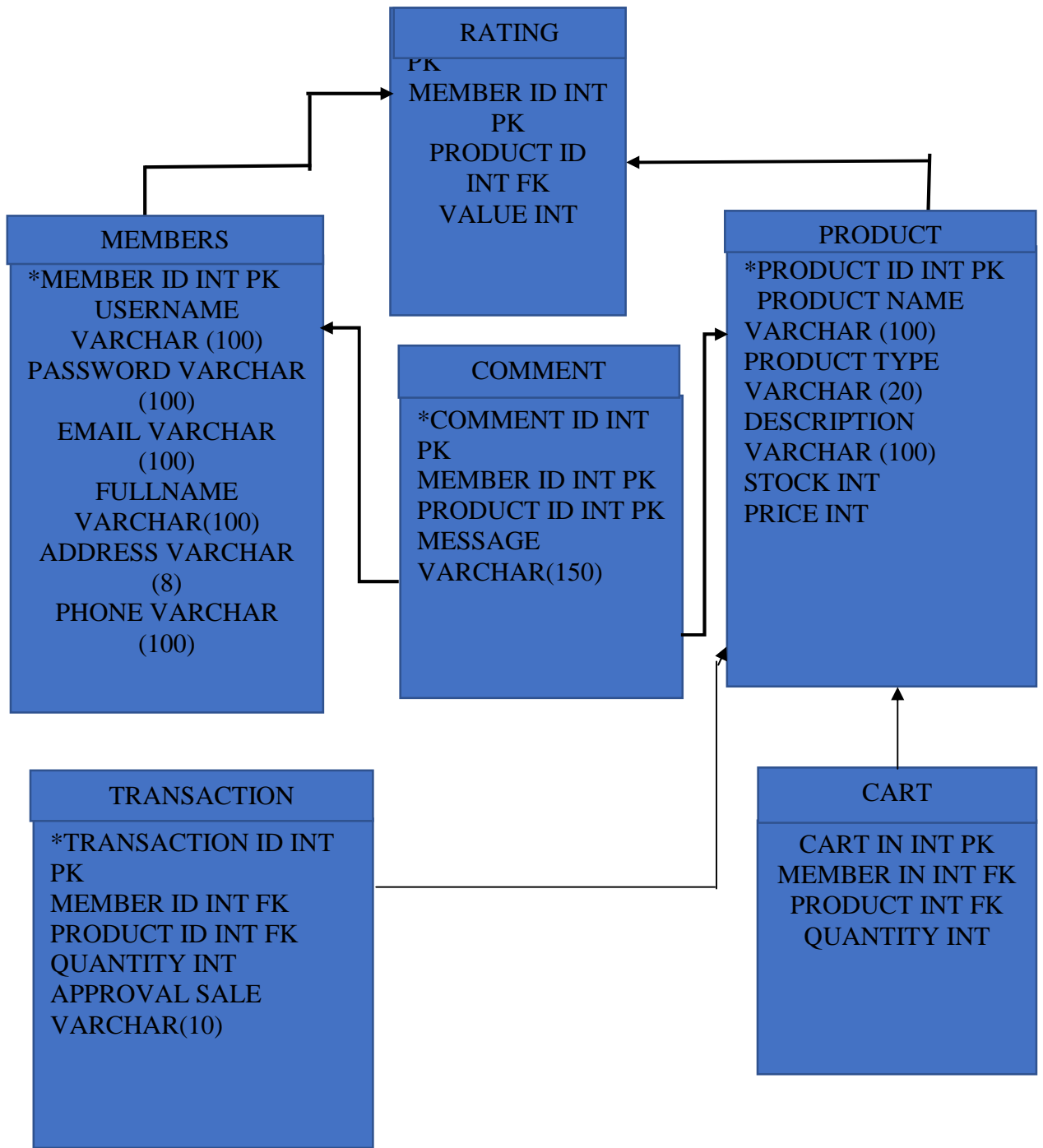
Figure 1.18 - DATABASE DIAGRAM

1.3.12. USERS

How can a site be without users? with WordPress, it is much easier than any person can enter your admin panel. each user will be given a particular profile base on their personal information and credentials, and they also give a particular role. each personal role dictates and permits them to do work on the site. for instance, I am

the administrator in this project I have full access to all the features and actions, that is, posting content, installing the plugin, making changes on the site themes, and much more. nevertheless, a person subscribing will only be able to see and manage their own profile information. you can also manage this information from the clicking on the user then all pages. from there you can create a new user and also edit the already made ones. for security, it's a must that you give a particular person the correct user role and also avoids lending too much authorization to the user who doesn't need them

The photo below shows the user section and how to add a new user and assigning a role to them.
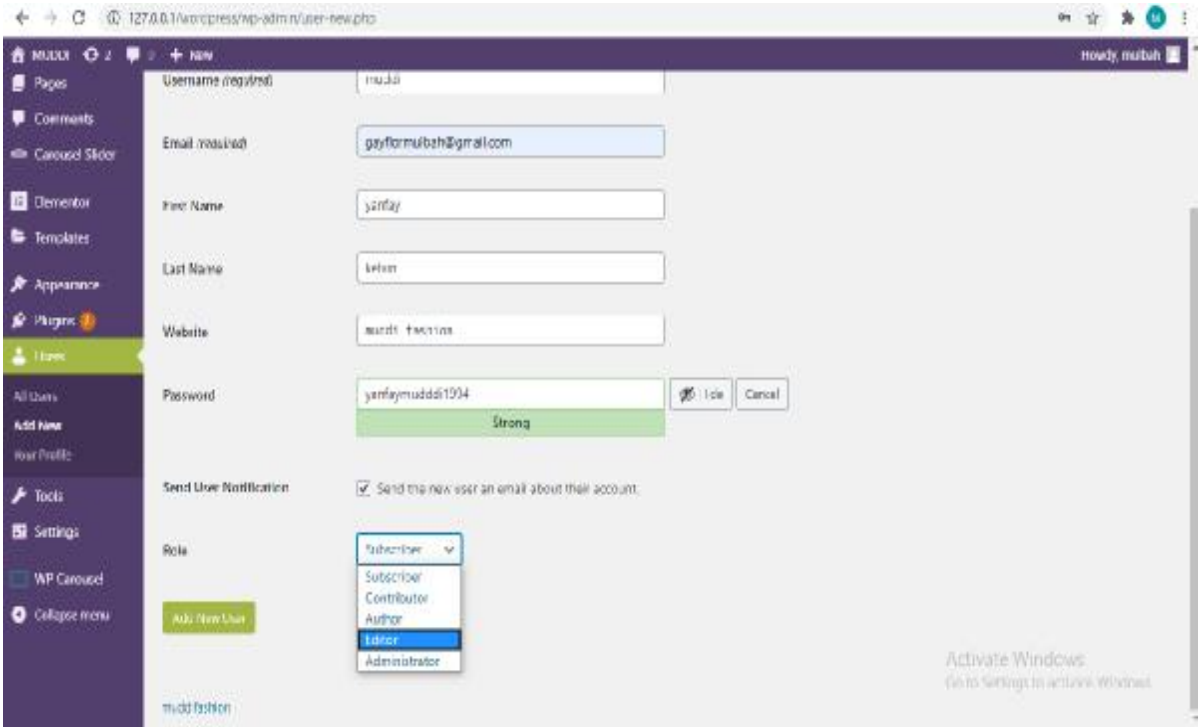
Figure 1.19 -   VIEW OF USER BEING ADDED

1.3.13 COMMENTS

They are used by a second party or third-party individuals to engage with the content provided on the site. it has features that enable the post to default, despite it is usually disabled on pages.

Nonetheless, you may want to readjust your comments section. some can be from the automatic spam bot or offensive. to handle the situations, you can maintain the person's comments on the comment screen. marking comments ПЗ as spam would assist you in order to automatically clean outposts that are related in the future. to avoid possibly risky or offensive comments from coming on your web page, you can decide to keep every comment composure when they are posted. In this manner, you can view them before allowing that comment to be published.

This photo below shows the view of the comment section.
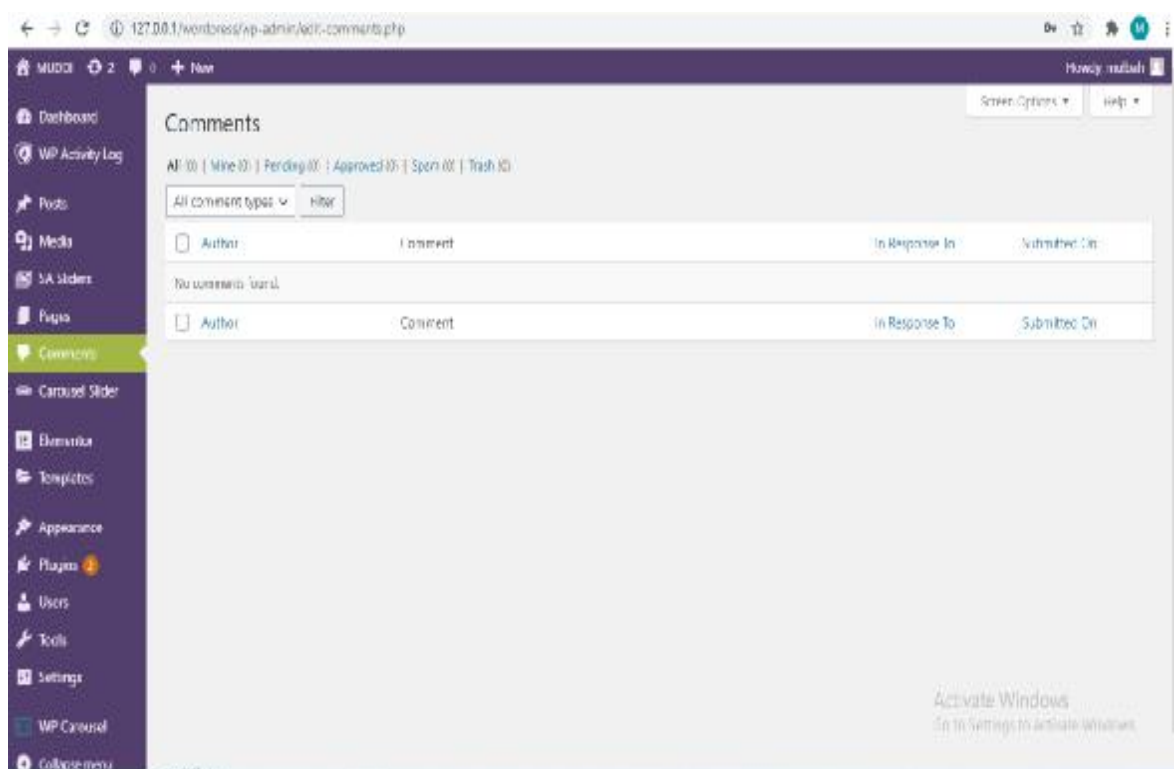
Figure 1.20 - VIEW OF THE COMMENT PAGE

1.3.14. Tools

The section of tools has a number of assorted features that cannot be frequently used, even as that they might sometime need a user. the tools section is mostly focused on sending out and importing data.

let's take this example, data can be import by you form a lot of variety of platforms, like LiveJournal, the blogger, and much more.
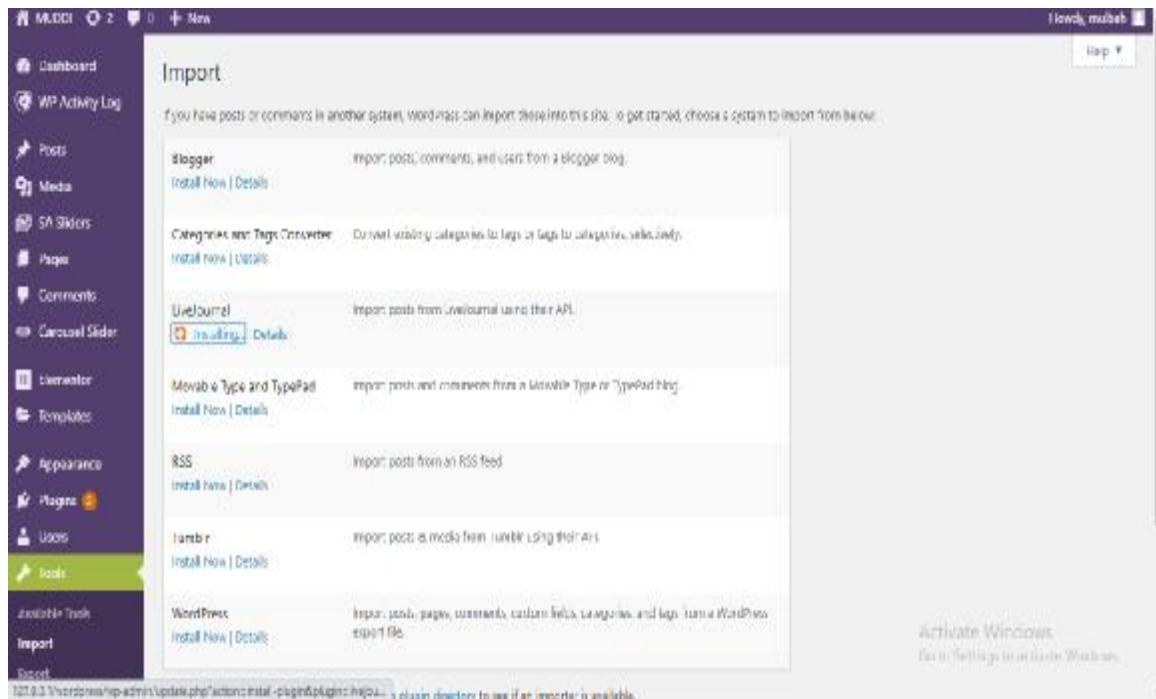
Figure 1.21 -   SHOW THE TOOLS PAGE

1.3.15. Settings

The final is the settings. from the name set, you will assume that has to do something with arranging a particular key option for the website.

This part or section consists of a lot of subpages and every single one of them has its own aspect of the website. For example, the setting allows you to apply default compositions for your blog posts when writing. It also allows you to decide or regulate how the site URLs are arranged by using the permalinks setting.

There are a number of options you can tweak in these pages, and it's essential you make the right choices for your site. as such, we recommend that you check out our comprehensive guide to WordPress' settings.

In the photo below you will see how site are arrange in WordPress setting.
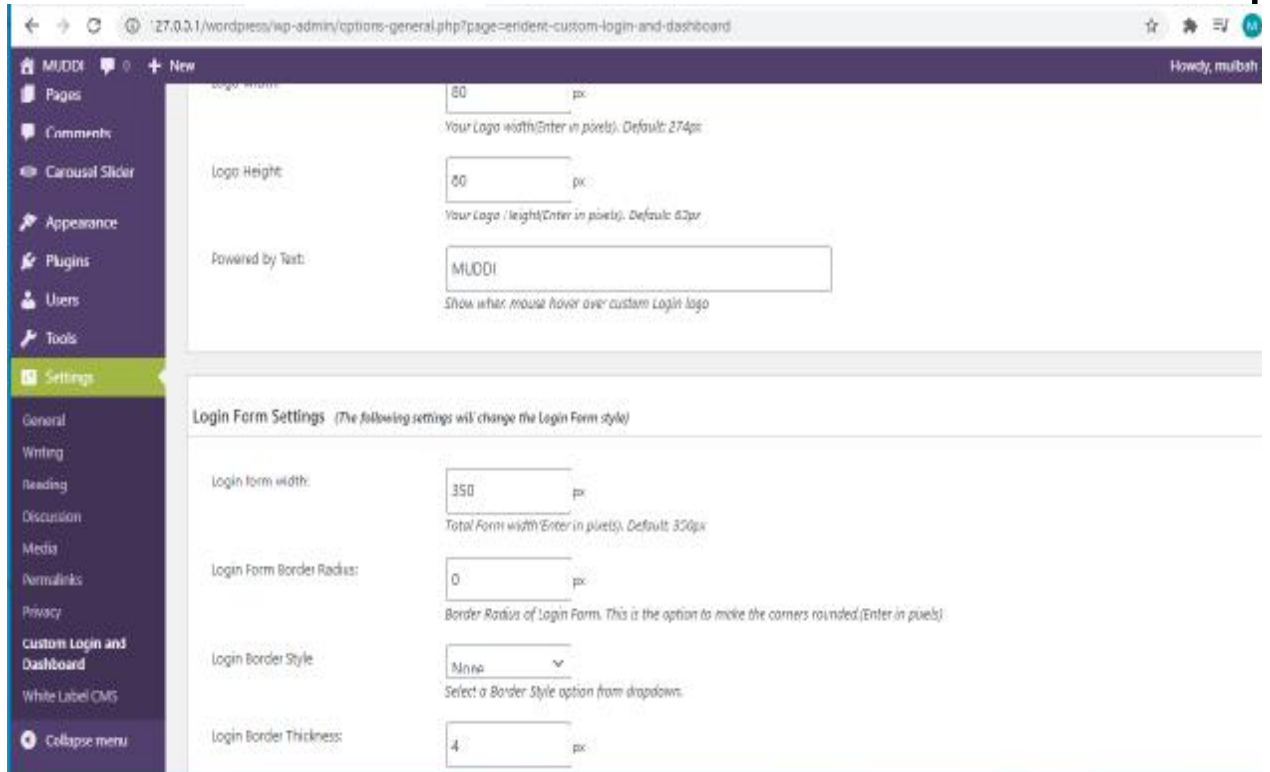
Figure 1.22 -   VIEW OF THE SETTING PAGE

1.4 FRONT-END DESIGN OF THE PROJECT

The term Front end is referred to the section of a site which the clients or visitor relate to directly. Front end could also be introduced as a user-side of the function or application. It includes everything that users experience directly: text colors and styles, images, graphs and tables, buttons, colors, and navigation menu. HTML, CSS, and JavaScript are the languages used for Front End development. The structure, design, behavior, and content of everything seen on browser screen when websites, web applications, or mobile apps are opened up, is implemented by front End developers. Responsiveness and performance are two main objectives of the

Front End. The developer must ensure that the site is responsive i.e. it appears correctly on devices of all sizes no part of the website should behave abnormally irrespective of the size of the screen.

Front end Languages: The front-end portion is built by using some languages which are discussed below.

1.4.1 WEB STRUCTURE

The website Structure is basically the plan of the website, it shows how subpages are linked to each other's.

Website structure are very important that crawlers can find all of your subpages quickly and easily when the websites has large number of subpages.
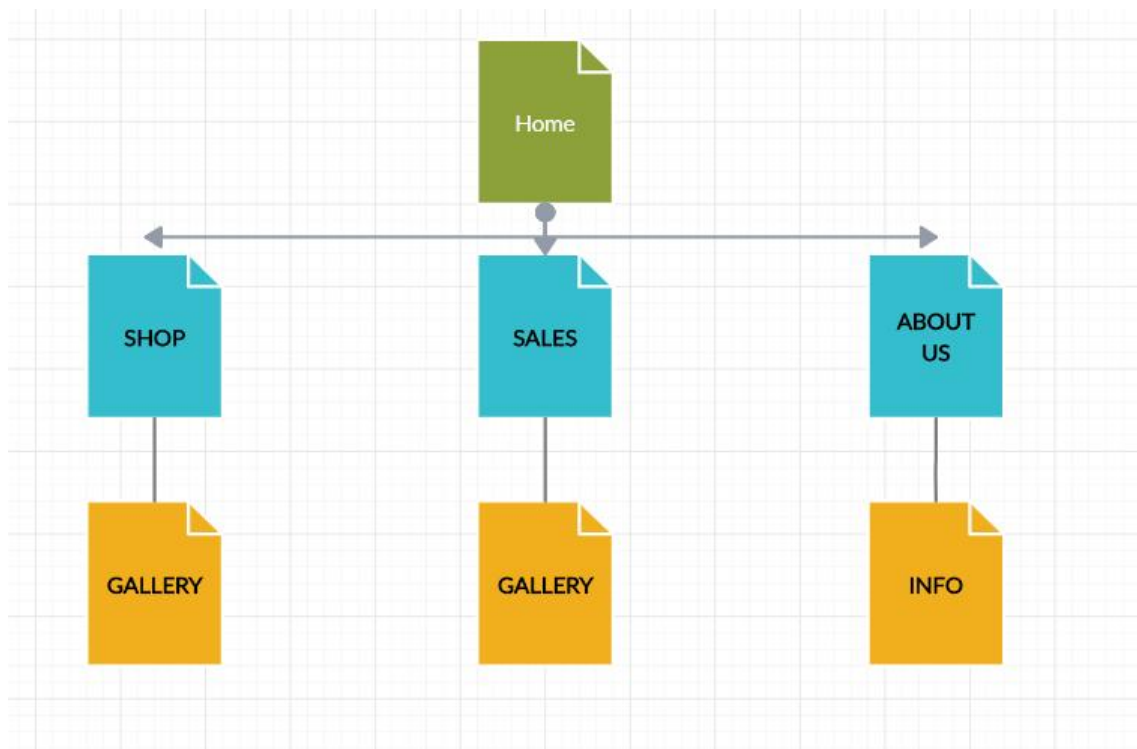
Figure 1.23 -   WEB STRUCTURE FIGURE

1.4.2 HTML (Hyper Text Mark Language) Code

Hypertext Markup Language (HTML) is the standard markup language for reports intended to be shown in an internet browser. It very well may be helped by advancements, for example, Cascading Style Sheets (CSS) and scripting dialects, for example, JavaScript, ASP, and PHP.

Internet browsers get HTML records from a nearby or web server or from neighborhood stockpiling and render the archives into sight and sound website pages. HTML depicts the structure of a site page semantically and at first included and initially included prompts for the nearness of the document.

HTML components are the structure squares of HTML pages. With HTML builds, pictures, and different items, for example, intuitive structures might be installed into the rendered page. HTML gives a way to make organized records by meaning basic semantics for text, for example, headings, sections, records, connections, cites, and different things. HTML components are portrayed by labels, composed utilizing point sections. Labels, for example, <img/> and <input/> straightforwardly bring content into the page. Different labels, for example, <p> encompass and give data about archive text and may incorporate different labels as sub-components. Programs don't show the HTML labels however use them to decipher the substance of the page.

The photos below show the code written for the front- end of my project.

These codes are for the Navbar, Search engine, images, videos, and footer.

Figure 1.24 -   HTML code for the website

Figure 1.25 - HTML CODE FOR NAVBAR

Figure 1.26 - HTML CODE FOR CAROUSEL AND FOOTER

1.4.3 CSS Code

CSS Means "cascading Style Sheet." Cascading templates are utilized to organize the design of Web pages. They can be utilized to characterize text styles, table sizes, and different parts of Web pages that beforehand must be characterized in

a page's HTML. CSS helps Web-engineers make a uniform look over a few pages of a Web webpage. Rather than characterizing the style of each table and each square of text inside a page's HTML, ordinarily utilized styles should be characterized just a single time in a CSS report. When the style is characterized in a falling template, it tends to be utilized by any page that references the CSS document. In addition, CSS makes it simple to change styles over a few pages on the double.

For instance, a Web designer might need to build the default text size from 10pt to 12pt for fifty pages of a Web webpage. In the event that the pages all reference a similar template, the content size just should be changed on the template and all the pages will show the bigger content. The photographs beneath show the code written in CSS to offer style to the photograph, navbar, footer, and so on.
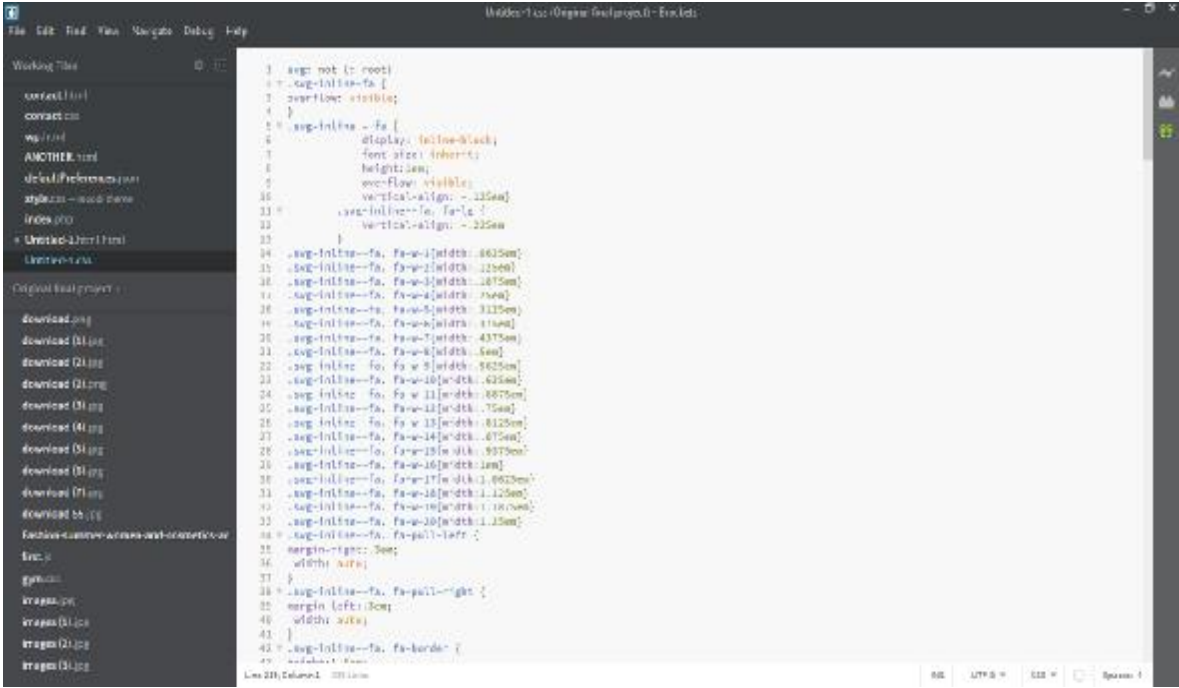
Figure 1.27 -   CSS code for photos

More CSS codes

Figure 1.28 - CSS codes

Figure 1.29 - CSS codes

Figure 1.30 - CSS codes

Figure 1.31 - CSS codes

Figure 1.32 - CSS codes

1.4.4 JAVASCRIPT CODE

JavaScript is a popular scripting language used to make the enchantment on the locales to make the site intelligent for the client. It is accustomed to improving the usefulness of a site for running cool games and electronic programming.

It was at first developed by Netscape as an approach to include dynamic and intelligent components to sites.In the mean time is progressively similar to C and relies upon ECMAScript, a scripting language made by Sun Microsystems.

JS is A client side scripting language, which infers the source code is setup by the customer's internet browser as opposed to on the webserver. This infers JavaScript limits can seek after a website page has mutilated in the absence of speaking with the server.

CODE:

The code below is made for support of the IE9.

<! --[if gte IE 9]><! -->

<script type="text/javascript">

(function () {

var request, b = document.body,

```
c = 'className', cs =   'customize-support',
rcs = new RegExp('(^|\\s+)(no-)?'+cs+'(\\s+|$)');
request = true;
b[c] = b[c].replace( rcs, ' ' );
```

The customizer requires postMessage and CORS (if the site is cross domain).

```
b[c] += ( window.postMessage && request ? ' ' : ' no-' ) + cs;
}());
</script>
<!--<![endif]-->
```

This code is use for button hovers.

```
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-includes/js/hoverintent-js.min.js?ver=2.2.1"></script>
```

The code below is used for the admin bar.

```
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-includes/js/admin-bar.min.js?ver=5.4.2"></script>
```

This code is a custom JS made for this theme.

```
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/all.min.js?ver=5.6.3"></script>
```

This code is used for some Font Awesome Js

```
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/v4-shims.min.js?ver=5.6.3"></script>
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/custom.min.js?ver=1.3.1">
</script>
```

This JS code is for the carousel

```
<script        type="text/javascript"        src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/owl.carousel.min.js?ver=2.2.1"></script>
```

<script type="text/javascript" src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/owlcarousel2-a11ylayer.min.js?ver=0.2.1"></script>

This a code is for some scroll actions.

<script type="text/javascript" src="http://127.0.0.1/WordPress/wp-content/themes/blossomfashion/js/jquery.waypoints.min.js?ver=4.0.1"></script>

This code is for modal window.

<script type="text/javascript" src="http://127.0.0.1/WordPress/wp-content/themes/blossom-fashion/js/modal-accessibility.min.js?ver=1.3.1">

</script>

<script type="text/javascript" src="http://127.0.0.1/WordPress/wp-includes/js/wp-embed.min.js?ver=5.4.2">

</script>

1.5 CUSTOMIZE MANAGEMENT PANEL

In this part of my Diploma project, I will go through with the customization of the admin bar from the default to something better, also customization of the footer, login page, and I will also Add a welcome panel, add RSS feed panel and more.

Firstly, I had to log in to the admin panel and go to the plugin, after I have to downloaded a plugin call white label CMS and activated it.

The White Label allows administrators to customize the WordPress branding to bring client's websites to life.

After it has been activated you can go to the setting to and click on the white label CMS you will find five main categories: Branding, login, Dashboard, Menu, and Setting.

From here can select which categories you want to start customizing, I going to start with the Dashboard

Firstly, the admin dashboard is where new posts, categories, tags, pages, links, and custom post types are created. ... For short, the admin panel is where the content is created and the website is managed. This is the key to how a CMS (CMS) works.

In WordPress, I am going to walk you through the customization of my admin dashboard with some codes, photos, and the explanation.

The code below was used to modify my dashboard to add a header, page, and some video on the admin dashboard.

Code

Figure 1.33 - Dashboard Code

Dashboard login is utilized when the administrator of the site or site page need to alter the site or website page, they should login. Dashboard logout is utilized when the site administrator has got done with working in the administrator board, the administrator needs to log out to forestall unapproved access to your site.

With the White Label Branding plugin, you have the ultimate tool for customizing the WordPress admin and login screen.

It allows you to take full control over branding in the WordPress admin by:

- customizing your login screen, menus, and logos
- changing the color scheme of the entire admin section
- creating your own advanced login templates
- creating new user roles and assigning capabilities

Not only that, but you can decide who has access to what features by hiding elements for other administrators

Menu permits theme developer to let clients make custom menus of their own. The default menu will simply list the current WordPress Pages. WordPress underpins various menus so a topic can have support for more than one navigational menu (for example header and footer menus). Clients can include posts, pages, and custom connects to a menu utilizing intuitive usefulness. Clients can likewise add CSS classes to their menu things and change their appearance by including custom styles.

2 SPESIAL PART

2.1 WordPress Security Dangers, Procedure, and History

The WordPress security bunch believes in reliable disclosure by cautioning the security bundle promptly of any typical vulnerabilities. By means of the WordPress programmer one, security group can be flagged when there are potential security vulnerabilities. the security group passes on among itself by methods for a private leeway channel, and goes after a walled-off, private Trac for following, testing, and fixing bugs and security issues.

The WordPress security group has confidence in dependable revelation by alarming the security group promptly of any expected vulnerabilities. Through a private leeway channel, the security group passes on among themselves, and chips away at a walled-off, private Trac for following, testing, and fixing bugs and security issues. Each security report is seen upon receipt, and the social affair attempts to certify the weakness and pick its earnestness. At whatever point insisted, the security bunch by then designs for a fix to fix the troublesome which can be centered around a best in class appearance of the WordPress programming or it will in general be pushed as a short security discharge, subordinate upon the truth of the issue.

For a short security discharge, a counsel is scattered by the security gathering to the WordPress.org news site specifying the discharge and isolating the changes. credit for the dependable exposure of a lack of protection is given in the notification to stimulate and support proceeded with fit uncovering later on. chiefs of the WordPress programming see a warning on their site dashboard to

Ch.	List	№ docum.	Sign	Date

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Develop.	Mulbah G. Y.				
Supervisor	Leschyshyn Yu.				
Referee	Bodnarchuk I.O.				
N. Contr.	Stadnik N.B.				
H. of Dept.	Osukhivska H.M.				

Content management system based on the Wordpress framework
Explanatory note

Letter	Page.	Pages

FIS, ICI-42

revive when another discharge is open, and following the manual update, clients are involved to the about WordPress screen which subtleties the changes. On the off chance that officials have altered foundation restores empowered, they will get an email after an update has been finished.

2.2 Customized Establishment upgrades for security releases

Beginning with structures 3.7, WordPress presented electronic foundation resuscitates for every single minor discharge, for example, 3.7.1 and 3.7.2.

The WordPress security gathering can see, fix, and push out electronic security upgrades for WordPress without the site proprietor planning to do anything on their end, and the security update will introduce subsequently.

Precisely when a security update is pushed for the current stable appearance of WordPress, the center social occasion will in like way push security animates for all the discharges that are prepared for establishment revives (since WordPress 3.7), so these increasingly settled at this point simultaneously progressing variations of WordPress will get security enhancements.

Specific site proprietors can pick to clear customized establishment revives through an immediate change in their structure record, yet keeping the handiness is energetically suggested by the center social event, likewise as running the most recent stable appearance of WordPress.

2.3 OWASP TOP 10

The open web application security task (OWASP) is an online framework given to web application security. The OWASP top 10 list8 bases on perceiving the most authentic application security dangers for an expansive demonstration of affiliations. The primary 10 things are selected and arranged in mix in with accord assessments of exploitability, distinguishable quality, and effect measures.

APIs, assets, and methods that WordPress uses to continue the center programming and distant modules and subjects against these possible hazards.

A1 - Imbuement

There is a lot of cutoff points and APIs open in WordPress to help engineers in ensuring unapproved code can't be imbued, what's more, help them with supporting and clean information. best practices and documentation are available9 on the most capable technique to use these APIS to make sure about, affirm, or clean data and yield data in html, URLS, http headers, and keeping in mind that interfacing with the database and file system. Officials can in like manner furthermore restrict such the record which can be moved by methods for channels.

A2 - Broken Verification and Meeting The board

WordPress focus programming regulates customer records and affirmation and nuances, for instance, the customer id, name, and puzzle key are coordinated on the server-side, comparatively, as the endorsement treats. Passwords are ensured in the database utilizing standard salting and are devastated upon logout for modifications of WordPress after 4.0.

A3 - Cross Site Scripting (XSS)

WordPress gives the degree of limits that can help guarantee that clients gave information is protected. Confided in clients, that is controllers and editors on a solitary WordPress establishment, and system authorities just in WordPress multisite can post unfiltered HTML or JavaScript as they have to, for example, inside a post or page. Untrusted clients and client submitted content is separated clearly to expel unsafe parts, utilizing the kses library through the wp kses work. For case, the WordPress focus bunch before the presence of WordPress 2.3 that the breaking point the pursuit question () was being mauled by most topic creators, who were not getting away from the capacity\'s yield for use in HTML. In a surprising event of somewhat breaking in reverse closeness, the capacity\'s yield was changed in WordPress 2.3 to be pre-gotten away.

A4 - Questionable DIRECT ARTICLE REFERENCE

WordPress dependably gives direct thing reference, for instance, extraordinary numeric identifiers of customer records or substance available in the URL or structure fields. While these identifiers uncover direct system information, WordPress assents, and access control structure foil unapproved requests.

A5 Security Misconfiguration

Most of the WordPress security game-plan assignments are constrained to a solitary supported chief. Default settings for WordPress are perseveringly overviewed at within social affair Level and the WordPress focus pack give documentation and best practices to fix security for server technique for running a WordPress site.

A6 - Fragile Data Introduction

WORDPRESS customer account passwords are salted and hashed subject to the advantageous php mystery key hashing structure. WORDPRESS underwriting structure is used to control access to private information such an enrolled clients pii, experts email addresses, and so on. in WordPress 3.7, a secret articulation quality meter was related with the center programming giving extra data to clients setting their passwords and bits of information on broadening quality. WORDPRESS additionally has a discretionary game-plan the setting for requiring https.

A7 - MISSING Limit LEVEL ACCESS CONTROL

WORDPRESS checks for genuine guaranteeing and assents for any limit level access requests before the improvement being executed. Access or delineation of indisputable URLS, menus, and pages without a bona fide support is passionately merged with the affirmation structure to keep access from unapproved customers.

A8 - CROSS SITE Requesting Creation (CSRF)

Nonce, it is a cryptographic that WordPress uses, to support inspiration driving development demands from embraced clients to ensure against potential csrf dangers. WORDPRESS gives a programming interface to the age of these tokens to make and demand enrapturing and brief tokens and the token are confined to a specific customer, a specific movement, a specific thing, and a specific time length, which can be added to structures and URLs moving. What's more, all nonce are destroyed upon logout.

A9 - Using PARTS WITH KNOWN VULNERABILITIES

The WordPress center bundle anxiously screens the couple of included libraries and structures WordPress encourages with center worth. In the past, the center get-together has made to make them continuously secure, for example, the update to fix a cross-site fragility in tiny mice in WordPress 3.5.2.

On the off chance that noteworthy, within social occasion may choose to fork or dislodge fundamental outer parts, for example, when the SW upload library was formally supplanted by the By the plupload library in 3.5.2, and a guaranteed fork of SW transfer was made open by the security pack for those modules who kept utilizing SW upload until further notification.

A10 - UNVALIDATED Occupies AND ADVANCES

WordPress inward access control and affirmation structure will guarantee against tries to manage customers to awful goals or changed redirects. This value is moreover made open to, module modelers by strategies for a programming interface.

The best way to deal with Ensure and Secure your site.

Site security can be a stunning (or in any case, bewildering) point in an ever-impelling scene. this guide is wanted to give a reasonable structure to site page proprietors endeavoring to guide hazard and apply security rules to their web properties. Before we start, it's essential to review that security is never a set-it-and-amassing it strategy. Or then again perhaps, we solicit you to think from it as a never-ending technique that requires steady assessment to diminish the general hazard. By applying a deliberate technique to oversee site security, we can consider it an onion, with different layers of guard all getting together to diagram one piece. We have to see site security thoroughly and approach it with a shield totally procedure.

The most ideal approach to ensure oue site.

Regardless of site security can be an enormous undertaking over related landscape. From the guide that is accessible for proprietor of site pages who are attempting to lessen the treat of web wrongdoing and needing to utilize some defensive measure for the page, you can follow on.

AS we start, right off the bat you should comprehend that insurance isn't a make it and duplicate it.

CHAPTER 3

TECHNICAL - ECONOMIC ASSESSMENT

Topic of Diploma Project is "Content management system based on the Wordpress framework". This helps create sites and conveniently control them, which is especially important when creating online stores. It also makes it possible:

- provide the timely receipt of complete and accurate information,

- help to make rational decisions,

- provide an electronic means of organizing people, projects, and data,

- promote to grow of productivity and improve communication within an organization,

- improve data processing, data security management and data quality management,

- improve an electronic communication system, electronic collaboration system and office management system.

Our improvements proposed in the Diploma Project will affect the management of an organization and maintaining a balanced process of work inside the online stores.

Our improvements will affect managers and help them to effectively cooperate with suppliers, consumers and customers through the online stores.

The most common metric that can be used to measure the recommended improvements effectiveness is called an economic efficiency.

The economic efficiency helps to compare the performance before and after recommended improvements.

The economic effectiveness is used to measure the actual overall outcome or achievement of recommended improvements compared to projected outcome.

Outcomes are the changes, benefits or other effects that happen as a result of recommended improvements.

Economic efficiency is defined as the ratio of the value of output (revenue) to the value of input (expenses):

Economic efficiency = Value of Output (Revenue) / Value of Input (Expenses)

Economic effectiveness is the ratio of the actual and projected outcome.

Economic effectiveness = Actual Outcome / Projected Outcome

Projected outcomes creating an online store before (without use WordPress) and after (using WordPress) improvements are listed below in the table.

Table 1 – Projected outcomes before and after improvements

Projected outcomes without use WordPress		Actual outcomes using WordPress	
Inputs, dollars:		Inputs, dollars:	
Labour	1380	Labour	1717.5
Materials	3900	Materials	3630
Overhead	772.5	Overhead	555
Outputs before improvements, dollars:		Outputs after improvements, dollars:	
Data processing improvements	1785	Data processing improvements	2562
Network improvements	3000	Network improvements	4800
Data management improvements	1260	Data management improvements	1725

The values of outputs before and after recommended improvements are given below.

Table 2 – Calculation results

Value of output before **recommended improvements**, $	
Data processing improvements	1785
Network improvements	3000
Data management improvements	1260
Total Revenue	*1785+3000+1260=6045*
Value of output after **recommended improvements**, $	
Data processing improvements	2562
Network improvements	4800
Data management improvements	1725
Total Revenue	*2560+4800+1725=9075*

Total expenses before **recommended improvements** are calculated by adding the labour, materials, and overhead costs:

Total expenses = 1380+3900+772.5= *6052,5   dollars.*

Total expenses after **recommended improvements** equal:

Total expenses = 1717.5+3630+555= *5902,5   dollars.*

Economic efficiency *before **recommended improvements*** is defined by dividing total revenue before recommended improvements by total expenses before recommended improvements:

Economic efficiency before = 6045/ 6052,5= 0,99

Economic efficiency *after* **recommended improvements** is defined by dividing total revenue after recommended improvements by total expenses after recommended improvements:

Organizational efficiency after = 9075/ 5902,5 = 1,53

Conclusion: the economic efficiency before recommended improvements shows that the total revenue is less than the total expenses and the company has got a loss. The economic efficiency after recommended improvements shows that the total revenue exceeds the total expenses.

Economic effectiveness regarding revenue is measured as follows:

Economic effectiveness = Actual Revenue/ Projected revenue

Economic effectiveness =9075/6045=1,502

Economic effectiveness regarding expenses is measured as follows:

Economic effectiveness = Actual Expenses / Projected Expenses

Economic effectiveness =5902,5/6052,5=0,976

Conclusion: the economic effectiveness shows that the actual revenue compared to projected after recommended improvements increased by 50,1% (or to 3030 dollars, because *9075-6045*), and the actual expenses compared to projected after recommended improvements decreased by 2,5% (or to 150 dollars, because *5902,5-6052,5= – 150*).

CHAPTER 4

OCCUPATIONAL SAFETY AND HEALTH

4.1 Implementation of an Occupational Health and Safety Management System

Safety is the fundamental building block to creating a high performing, sustainable manufacturing operating system. When people aren't worried about getting hurt, they're free to think about other parts of their jobs. They can think about improving quality or how to improve machine performance. In many instances, if we eliminate minor machine stops and breakdowns, we improve safety — which also improves efficiency.

Safety can and should be used as a strategic lever; the safety of the workforce should be the first concern for any CEO. Companies that aspire to be World-Class must have safety as a core value. Safety and health are personal to every human being and can have a profound impact on their motivation and morale. Our employee-centric approach to improving safety is designed to build a sustainable, organic, internal capability.

The existence of a connection between safety and quality leads to measurable productivity improvements and a direct impact on your bottom line. It also leads to improved morale and increased productivity.

Labour protection management implies preparation, passing and implementation of decisions on administrative, technical, sanitation and medical-preventive measures aimed at ensuring people's health and work ability. The labour protection management system is a component part of the general system of enterprise management.

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Ch.	List	№ docum.	Sign	Date				
Develop.	Mulbah G. Y.				Content management system based on the Wordpress framework Explanatory note	Letter	Page.	Pages
Supervisor	Leschyshyn Yu.							
Reviewer	Lazaryuk V.V.							
N. Contr.	Stadnik N.B.					FIS, ICI-42		
H. of Dept.	Osukhivska H.M.							

Labour protection management envisages involvement practically of all services and subdivisions an enterprise.

The object of management is activity of structural subdivisions for the purpose of establishing safe and healthy working condition. Labour protection management at an enterprise is performed by its director (proprietor) and at the subdivisions (workshops, departments and services) by their heads and leading experts. This activity is coordinated by the labour protection service.

Main principles of Implementation of Occupational Health and Safety Management System:

- priority of human (employee"s) health and life over the enterprise"s production performance;

- implementation of the accident prevention principle;

- joint discussion of labor safety issues and personal responsibility for decisions and their implications;

- regularity of labor protection management;

- publicity of control and managerial decisions.

Functions of labour protection management include the complex of necessary and rational operations aimed at ensuring labour safety secure.

Here belong:

- control over labour protection and decision-making;

- estimation of officials' performance and involvement in accordance with LP quantitative criteria;

- establishing the system of incentives and penalties for officials in respect of ensuring labour safety and preventing occupational diseases and injuries.

- elaboration, adoption and implementation of managerial decisions.

Each company possesses (whether consciously or not, whether documented or not) an overall occupational health and safety management system (OHSMS). This management system is the sum of the management subsystems as well as their interrelationships.

Occupational Health and Safety Assessment Series (OHSAS) Standard and the accompanying OHSAS 18002, Guidelines for the implementation of OHSAS 18001, have been developed in response to customer demand for a recognizable occupational health and safety management system standard against which their management systems can be assessed and certified.

Figure – 4.1 OHSMS Evolution

Conventions and Recommendations on occupational safety and health may serve several purposes, acting as:

- fundamental principles to guide policies for promotion, action and management;

- general protection measures, for example, guarding of machinery, medical examination of young workers or limiting the weight of loads to be transported by a single worker;

- protection in specific branches of economic activity, such as mining, the building industry, commerce and dock work;

- protection of specific professions (for example, nurses and seafarers) and categories of workers having particular occupational health needs (such as women or young workers);

- protection against specific risks (ionizing radiation, benzene, asbestos);

- prevention of occupational cancer; control of air pollution, noise and vibration in the working environment; measures to ensure safety in the use of chemicals, including the prevention of major industrial accidents;

- organizational measures and procedures relating, for example, to labor inspection or compensation for occupational injuries and diseases.

Key Management System Components:

- Communication/Feedback loops

- Continual Improvement/Learning

- Accountability/Responsibility

- Leadership

- Participation

- Concept of Integration

Figure– 4.2 The Z10 OHSMS Model

Plan Do Check Act (PDCA) cycle includes next components.

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Plan: identify and analyze the problem: aspects, impacts, legal requirements, objectives, and metrics.

Do: developing and testing a potential solution: for example changes to organizational structure, processes, procedures, documentation, controls.

Check: measure effectiveness of solution and whether it can be improved. Assess through monitoring, evaluation, recordkeeping, audits.

Act: implement the improved solution fully.

All ISO standards follow the philosophy: say it, do it, document it.

Continual improvement is recurring process of enhancing the OH&S management system in order to achieve improvements inoverall OH&S performance consistent with the organization"s OH&S policy.

Many organizations manage their operations via the application of a system of processes and their interactions, which can be referred to as the "process approach". ISO 9001 promotes the use of the process approach. Since PDCA can be applied to all processes, the two methodologies are considered to be compatible.

The organization shall establish, document, implement, maintain and continually improve an OH&S management system in accordance with the requirements of OHSAS Standard and determine how it will fulfill these requirements. Top management shall define and authorize the organization"s OH&S policy and ensure that within the defined scope of its OH&S management system. The organization shall establish, implement and maintain a procedure(s) for the ongoing hazard identification, risk assessment, and determination of necessary controls.

4.2 ISO 45001 – Occupational health and safety management system

The world that we live in has experienced rapid changes in technology, competition, economy, education and so on. It is constantly evolving and advancing, and so are the human expectations and demands. In order to compete in a continuously changing world, organizations need to establish a variety of approaches

to keep up with industry trends. Consequently, organizations have to adapt in order to succeed in these fast paced and complex environments. These changes often involve multinational supply chains and those operations that organizations' have outsourced. The differences between nations, organizations, and societies also form part of these complexities. Therefore, effective management is crucial and of a high priority at the board-level.

For an organization, it is not sufficient to only be profitable, it is also important for them to have reliable systems of internal controls covering those risks related to occupational health and safety, the environment and the reputation of the business. Each organization is responsible for the health and safety of theiremployees and others who may be affected by their activities. Organizations need to operate ethically, as well as, comply with the respective laws in these matters.

Statistics published by the ILO (International Labour Organization) indicate that: "more than 2.78 million deaths occur annually due to occupational accidents or work-related diseases, in addition to 374 million nonfatal injuries and illnesses, many of which result in extended absences from work."

Seemingly, this enormous number of affected workers is of very high concern to organizations and the society as a whole. These statistics are clear evidence that organizations around the world need to implement health and safety management systems. Likewise, the health and safety of workers is increasingly becoming a priority for most nations and societies.

Furthermore, according to certain estimations - over 40 million new jobs will be created annually by 2030, following the world's population growth. Therefore, reducing the number of incidents that may result in high numbers of deaths (even by a small percentage) would be considered as a great achievement. However, as a consequence, there will be a high demand for "best practice" standards to assist organizations with improvements in health and safety. These trends led to the need for the development of a recognized standard in all geographical areas, states, cultures, and jurisdictions, as a reference point for health and safety management; promoting better communication on common issues.

The ISO's aspiration is that "the ISO name and the recognition will give further credibility to the newStandard and lead to even wider adoption of health and safety management systems in the workplace."Correspondingly, following a standard for occupational health and safety will help organizations reduce accidents and occupational diseases, avoid costly prosecutions, reduce insurance costs, enhance the public image & business reputation, and establish a positive culture for the organization where all stakeholders see that their needs are taken into account.

ISO 45001 is the new international standard for Occupational Health and Safety Management Systems published by the International Organization for Standardization (ISO). It is a voluntary standard that organizations can adopt to establish, implement, maintain and improve their Occupational Health and Safety Management Systems (OH&S MS).

ISO 45001 is an international standard for occupational health and safety (OH&S) that derives from OHSAS 18001. It provides a framework for managing the prevention of work-related injuries, ill health,

and/or death; thereby providing a safe and healthy workplace. OHSAS 18001 required from organizations, regardless of their size, type and/or activities, to prevent injuries and deaths.

ISO 45001 sets the background for continual improvement in health and safety management based on the following principles:

Provide safe and healthy working conditions to prevent work-related injury and ill health;

Satisfy applicable legal requirements and other requirements;

Control OH&S risks by using a hierarchy of controls;

Continually improve the OH&S management system to enhance the organization's performance;

Ensure the participation of workers and other interested parties in the OH&S MS.

Distinctly, the ISO 45001 standard is more advanced than the OHSAS 18001 standard; in fact, the British Standards Institute will withdraw or completely take-off

OHSAS 18001 from their market right after theISO publishes the 45001 standard. Note that the British Standards Institute and ISO are two different standards' making bodies; one being the official developer of British Standards (e.g. BS7799), whereas the other being the official developer of international standards (e.g. ISO 9001). However, all organizations worldwide that are currently implementing OHSAS 18001 must update their management systems to the requirements of the new standard, thus ISO 45001.

The prospective users of the ISO 45001 standard The new ISO 45001 standard brings real benefits to those who will use it. The standard is designed to be applicable to any organization, and its requirements are intended to be incorporated in any management system, regardless of the organization's size or sector; whether it is a small business, large organization or even a non-profit organization, a charity, an academic institution or a governmental department. Having in place a systematic approach to manage health and safety will bring benefits to both the people and the organization. Ultimately, good health and safety is good business. The standard is also intended for organizations with small or low-risk operations, as well as, for organizations with high-risk operations.

This standard states that successful health and safety management depends on the following:

Leadership and commitment of top or senior management;

Promotion of a healthy and safety culture within the organization;

Participation of workers and/or other representatives in the OH&S Management System;

Identification of hazards and control of risks;

Allocation of the necessary resources;

Integration of the health and safety management system into appropriate processes;

Alignment of the health and safety policies with the strategic objectives of the organization;

Continuous evaluation and monitoring of the health and safety management system in regards to performance improvement.

Principally, twenty-five years of experience went into the previous OHSAS 18001 standard and ISO 45001 capitalizes on this learning with the support of the International Labour Organization (ILO). The ILO has given its expertise on the subject and has provided very important insights on the standard.

Essentially, organizations of all sizes can easily align to the new repository that fits perfectly with the structure of the standards such as ISO 9001 and ISO 14001.

Overview of ISO 45001 The ISO 45001 standard provides a framework for managing the prevention of work-related injuries, ill health and death. The intention of this international standard is to improve and provide a safe and healthy workplace for workers and other persons who may be interacting with the organization. This includes the development and implementation of an OH&S policy and objectives which take into account applicable legal requirements and other requirements to which the organization subscribes.

This standard does not state specific criteria for OH&S performance, nor does it provide a specific methodfor the design of the OH&S Management System.

This International Standard is applicable to any organization that wishes to:

- establish, implement and maintain an OH&S Management System to improve occupational health;

- and safety, eliminate or minimize OH&S risks (including system deficiencies), take advantage of OH&S;

- opportunities, and address OH&S Management System nonconformities associated with its activities;

- continually improve its OH&S performance and achieve its OH&S objectives;

- assure itself of the conformity to the OH&S policy;

- demonstrate conformity with the requirements of this International Standard.

According to ISO 45001, the Occupational Health and Safety Management System is part of the organization's overall management system used to achieve the

OH&S policy. The intended outcomes of the OH&S Management System are to provide a safe and healthy workplace for all employees/workers.

Consequently, the effective OH&S management promotes business efficiency, reduces costs and makes good business sense.

According to ISO 45001, a worker is defined as a person performing work or work-related activities under the control of the organization, for instance, individuals perform work or work-related activities under various arrangements; paid or unpaid at a regular or temporary, intermittent or seasonal, casual or on a part-time basis.

ISO 45001 is the first Occupational Health and Safety Management System standard to be fully compliant with the new guidelines of the Annex SL and to have a common content structure and terms and definitions to other management system standards. This means that ISO 45001 is fully aligned with all other management systems (related) standards that have also adopted the Annex SL framework.

This international standard does not address issues such as product safety, property damage or occupational health and safety impacts; it addresses the risk that the working environment and/ or conditions pose to workers, visitors, vendors, and other relevant interested parties. ISO 45001 can be used entirely or partially to systematically improve the OH&S management system. However, claims of conformity to this standard are not acceptable unless all of the standard's requirements, without exclusion, are incorporated into an organization's OH&S Management System.

CONCLUSIONS

As the conclusion I would like firstly summarize the entire thesis. The main goal of this thesis is to design a CMS using WordPress . Firstly, in the main part I have discuss about CMS and WordPress, I also discussed the main component of CMS and WordPress and their functions. From the chapter one of this thesis also explained the some the CMS architecture, it also discusses the structure of the front-end and the data base diagram. In the second chapter of the thesis is basically understanding how to secure your website and the security system of WordPress.

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APPENDIXES

APPENDIX A

Code of wordpress

```
<html           lang="en-US"           class="fontawesome-i2svg-active
fontawesome-i2svg-complete">
 <head itemscope="" itemtype="http://schema.org/WebSite">
<meta charset="UTF-8">
<meta  name="viewport"  content="width=device-width,  initial-
scale=1"><link rel="profile" href="http://gmpg.org/xfn/11">
<title>HOME – MUDDI</title>
<link rel="dns-prefetch" href="//fonts.googleapis.com">
<link rel="dns-prefetch" href="//s.w.org">

<link  rel="alternate"  type="application/rss+xml"  title="MUDDI
» Feed" href="http://127.0.0.1/wordpress/feed/">

<link  rel="alternate"  type="application/rss+xml"  title="MUDDI
»                                                       Comments
Feed"href="http://127.0.0.1/wordpress/comments/feed/">

<link          rel="stylesheet"          id="dashicons-css"
href="http://127.0.0.1/wordpress/wp-
includes/css/dashicons.min.css?ver=5.4.2"      type="text/css"
media="all">

<link          rel="stylesheet"          id="admin-bar-css"
href="http://127.0.0.1/wordpress/wp-includes/css/admin-
bar.min.css?ver=5.4.2" type="text/css" media="all">

<linkrel="stylesheet"id="wp-block-library-css"
href="http://127.0.0.1/wordpress/wp-includes/css/dist/block-
library/style.min.css?ver=5.4.2" type="text/css" media="all">
<linkrel="stylesheet"id="owl-carousel-css"
href="http://127.0.0.1/wordpress/wp-content/themes/blossom-
fashion/css/owl.carousel.min.css?ver=2.2.1"     type="text/css"
media="all">

<link           rel="stylesheet"            id="animate-css"
href="http://127.0.0.1/wordpress/wp-content/themes/blossom-
fashion/css/animate.min.css?ver=3.5.2"         type="text/css"
media="all">

<linkrel="stylesheet"id="blossom-fashion-google-fonts-css"
href="https://fonts.googleapis.com/css?family=Montserrat%3A100
%2C100italic%2C200%2C200italic%2C300%2C300italic%2Cregular%2Ci
```

```
talic%2C500%2C500italic%2C600%2C600italic%2C700%2C700italic%2
C800%2C800italic%2C900%2C900italic%7CCormorant+Garamond%3A300%
2C300italic%2Cregular%2Citalic%2C500%2C500italic%2C600%2C600it
alic%2C700%2C700italic%7CRufina%3Aregular"       type="text/css"
media="all">

<linkrel="stylesheet"id="blossom-fashion-style-css"
href="http://127.0.0.1/wordpress/wp-content/themes/blossom-
fashion/style.css?ver=1.3.1" type="text/css" media="all">

<scripttype="text/javascript"src="http://127.0.0.1/wordpress/w
p-includes/js/jquery/jquery.js?ver=1.12.4-wp"></script>

<scripttype="text/javascript"src="http://127.0.0.1/wordpress/w
p-includes/js/jquery/jquery-
migrate.min.js?ver=1.4.1"></script>

<link                              rel="https://api.w.org/"
href="http://127.0.0.1/wordpress/wp-json/">
<linkrel="EditURI"type="application/rsd+xml"title="RSD"
href="http://127.0.0.1/wordpress/xmlrpc.php?rsd">

<linkrel="wlwmanifest"type="application/wlwmanifest+xml"
href="http://127.0.0.1/wordpress/wp-includes/wlwmanifest.xml">

<meta name="generator" content="WordPress 5.4.2">
<link rel="canonical" href="http://127.0.0.1/wordpress/home/">
<link rel="shortlink" href="http://127.0.0.1/wordpress/?p=33">
<link     rel="alternate"     type="application/json+oembed"
href="http://127.0.0.1/wordpress/wp-
json/oembed/1.0/embed?url=http%3A%2F%2F127.0.0.1%2Fwordpress%2
Fhome%2F">
<link         rel="alternate"         type="text/xml+oembed"
href="http://127.0.0.1/wordpress/wp-
json/oembed/1.0/embed?url=http%3A%2F%2F127.0.0.1%2Fwordpress%2
Fhome%2F&amp;format=xml">
</head>
<body  class="page-template-default  page  page-id-33  logged-in
admin-bar    rightsidebar    customize-support"    itemscope=""
itemtype="http://schema.org/WebPage"            data-gr-c-s-
loaded="true">
<div id="wpadminbar" class="nojq">
<a      class="screen-reader-shortcut"      href="#wp-toolbar"
tabindex="1">Skip to toolbar</a>

<div class="quicklinks" id="wp-toolbar" role="navigation"
aria-
```

```
label="Toolbar">
<ul id="wp-admin-bar-root-default" class="ab-top-menu">
<li id="wp-admin-bar-wp-logo" class="menupop">
<a              class="ab-item"             aria-haspopup="true"
href="http://127.0.0.1/wordpress/wp-admin/about.php">
<span class="ab-icon">
</span>
<span class="screen-reader-text">About WordPress</span>
</a>
<div class="ab-sub-wrapper">
<ul id="wp-admin-bar-wp-logo-default" class="ab-submenu">

<li  id="wp-admin-bar-about">
<a class="ab-item" href="http://127.0.0.1/wordpress/wp-
admin/about.php">About WordPress</a></li></ul>


<ul id="wp-admin-bar-wp-logo-external" class="ab-sub-secondary
ab-submenu">
<li id="wp-admin-bar-wporg">
<a class="ab-item"
href="https://wordpress.org/">WordPress.org</a></li>

<li id="wp-admin-bar-documentation"><a class="ab-item"
href="https://codex.wordpress.org/">Documentation</a></li>

<li id="wp-admin-bar-support-forums"><a class="ab-item"
href="https://wordpress.org/support/">Support</a></li>

<li id="wp-admin-bar-feedback"><a class="ab-item"
href="https://wordpress.org/support/forum/requests-and-
feedback">Feedback</a></li></ul></div></li>

<li id="wp-admin-bar-site-name" class="menupop">
<a              class="ab-item"             aria-haspopup="true"
href="http://127.0.0.1/wordpress/wp-admin/">MUDDI</a>

 <div class="ab-sub-wrapper">
 <ul id="wp-admin-bar-site-name-default" class="ab-submenu">
<li id="wp-admin-bar-dashboard">

<a class="ab-item" href="http://127.0.0.1/wordpress/wp-
admin/">Dashboard</a>
</li>
</ul>


     <ul id="wp-admin-bar-appearance" class="ab-submenu">
      <li id="wp-admin-bar-themes"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-
admin/themes.php">Themes</a></li>
```

```html
        <li id="wp-admin-bar-widgets"><a class="ab-item"
         href="http://127.0.0.1/wordpress/wp-
admin/widgets.php">Widgets</a></li>


     <li id="wp-admin-bar-menus"><a class="ab-item"
     href="http://127.0.0.1/wordpress/wp-admin/nav-
     menus.php">Menus</a></li>



        <li id="wp-admin-bar-background" class="hide-if-
customize">
     <a class="ab-item" href="http://127.0.0.1/wordpress/wp-
     admin/themes.php?page=custom-background">Background</a>
     </li>

     <li    id="wp-admin-bar-header"    class="hide-if-customize"><a
     class="ab-item"            href="http://127.0.0.1/wordpress/wp-
     admin/themes.php?page=custom-header">Header</a>
     </li>
     </ul>
     </div>
     </li>



     <li id="wp-admin-bar-customize" class="hide-if-no-customize">
     <a class="ab-item" href="http://127.0.0.1/wordpress/wp-
     admin/customize.php?url=http%3A%2F%2F127.0.0.1%2Fwordpress%2Fh
     ome%2F">Customize</a>
     </li>

     <li id="wp-admin-bar-comments"><a class="ab-item"
     href="http://127.0.0.1/wordpress/wp-admin/edit-comments.php">
     <span class="ab-icon"></span>
     <span class="ab-label awaiting-mod pending-count count-0"
     aria-hidden="true">0</span>
     <span class="screen-reader-text comments-in-moderation-text">0
     Comments in moderation</span>
     </a>
</li>

     <li id="wp-admin-bar-new-content" class="menupop"><a
     class="ab-item" aria-haspopup="true"
     href="http://127.0.0.1/wordpress/wp-admin/post-new.php">
      <span class="ab-icon"></span>
      <span class="ab-label">New</span></a><div class="ab-sub-
     wrapper">

     <ul id="wp-admin-bar-new-content-default" class="ab-submenu">
```

```html
<li id="wp-admin-bar-new-post"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-admin/post-
new.php">Post</a></li>

<li id="wp-admin-bar-new-media"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-admin/media-
new.php">Media</a></li>
<li id="wp-admin-bar-new-page"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-admin/post-
new.php?post_type=page">Page</a></li>

<li id="wp-admin-bar-new-user"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-admin/user-
new.php">User</a></li></ul></div></li>

<li id="wp-admin-bar-edit"><a class="ab-item"
href="http://127.0.0.1/wordpress/wp-
admin/post.php?post=33&amp;action=edit">Edit
Page</a></li></ul>
<ul id="wp-admin-bar-top-secondary" class="ab-top-secondary
ab-top-menu">
<li id="wp-admin-bar-search" class="admin-bar-search">
<div class="ab-item ab-empty-item" tabindex="-1">
<form action="http://127.0.0.1/wordpress/" method="get"
id="adminbarsearch">
<input class="adminbar-input" name="s" id="adminbar-search"
type="text" value="" maxlength="150">
<label for="adminbar-search" class="screen-reader-
text">Search</label>
 <input type="submit" class="adminbar-button" value="Search">
</form>
</div>
</li>
<li id="wp-admin-bar-my-account" class="menupop with-avatar">
<a class="ab-item" aria-haspopup="true"
href="http://127.0.0.1/wordpress/wp-admin/profile.php">Howdy,
<span class="display-name">mulbah</span>

<img alt=""
src="http://1.gravatar.com/avatar/126f03bbb5791d880533ff03f04b
62a2?s=26&amp;d=mm&amp;r=g"
srcset="http://1.gravatar.com/avatar/126f03bbb5791d880533ff03f
04b62a2?s=52&amp;d=mm&amp;r=g 2x" class="avatar avatar-26
photo" height="26" width="26"></a>

    <div class="ab-sub-wrapper">
    <ul id="wp-admin-bar-user-actions" class="ab-submenu">
<li id="wp-admin-bar-user-info"><a class="ab-item" tabindex="-
1" href="http://127.0.0.1/wordpress/wp-admin/profile.php">
<img alt=""
src="http://1.gravatar.com/avatar/126f03bbb5791d880533ff03f04b
62a2?s=64&amp;d=mm&amp;r=g"
srcset="http://1.gravatar.com/avatar/126f03bbb5791d880533ff03f
```

```
04b62a2?s=128&amp;d=mm&amp;r=g 2x" class="avatar avatar-64
photo" height="64" width="64">
        <span class="display-name">mulbah</span></a></li>
        <li id="wp-admin-bar-edit-profile">
<a class="ab-item" href="http://127.0.0.1/wordpress/wp-
admin/profile.php">Edit My Profile</a></li>

        <li id="wp-admin-bar-logout">
<a class="ab-item" href="http://127.0.0.1/wordpress/wp-
login.php?action=logout&amp;_wpnonce=0d870d1ac3">Log
Out</a></li>

          </ul>
        </div>
         </li>
        </ul>
        </div>
<a class="screen-reader-shortcut"
href="http://127.0.0.1/wordpress/wp-
login.php?action=logout&amp;_wpnonce=0d870d1ac3">Log Out</a>
</div>
<div id="page" class="site"><a aria-label="skip to content"
class="skip-link" href="#content">Skip to Content</a>

<header class="site-header" itemscope=""
itemtype="http://schema.org/WPHeader">
<div class="header-holder">
<div class="header-t">
<div class="container">
<div class="row">
<div class="col">
<form role="search" method="get" class="search-form"
action="http://127.0.0.1/wordpress/">
<label>
<span class="screen-reader-text">Search for:</span>
<input type="search" class="search-field" placeholder="Search
…" value="" name="s">
</label>
<input type="submit" class="search-submit" value="Search">
</form>
</div>

<div class="col">
<div class="text-logo" itemscope=""
itemtype="http://schema.org/Organization">
<div class="site-title-wrap">
    <p class="site-title" itemprop="name">
    <a href="http://127.0.0.1/wordpress/" rel="home"
itemprop="url">MUDDI</a>
    </p>
    <p class="site-description">REVOLUTION OF KICKS</p>
    </div>
    </div>
    </div>
```

```html
    <div class="col">
    <div class="tools">
</div>
    </div>
</div>
 </div>
</div>
</div>


<div class="nav-holder">
<div class="container">
<div class="overlay"></div>
<button aria-label="primary menu toggle" id="toggle-button"
data-toggle-target=".main-menu-modal" data-toggle-body-
class="showing-main-menu-modal" aria-expanded="false" data-
set-focus=".close-main-nav-toggle">
 <span>
</span>Menu
</button>
<nav id="site-navigation" class="main-navigation" itemscope=""
itemtype="http://schema.org/SiteNavigationElement">
<div   class="primary-menu-list  main-menu-modal   cover-modal"
data-modal-target-string=".main-menu-modal">
<button   class="btn-close-menu  close-main-nav-toggle"   data-
toggle-target=".main-menu-modal"data-toggle-body-
class="showing-main-menu-modal"  aria-expanded="false"   data-
set-focus=".main-menu-modal">
<span>
</span>
</button>

        <div class="mobile-menu" aria-label="Mobile">
     <div class="menu-navbar-container">
     <ul id="primary-menu" class="main-menu-modal">
<li id="menu-item-43" class="menu-item menu-item-type-
post_type menu-item-object-page current-menu-item page_item
page-item-33 current_page_item menu-item-43"><a
href="http://127.0.0.1/wordpress/home/" aria-
current="page">HOME</a></li>

<li id="menu-item-44" class="menu-item menu-item-type-
post_type menu-item-object-page menu-item-44">
<a href="http://127.0.0.1/wordpress/shop/">SHOP</a></li>

<li id="menu-item-45" class="menu-item menu-item-type-
post_type menu-item-object-page menu-item-45"><a
href="http://127.0.0.1/wordpress/sales/">SALES</a></li>


<li id="menu-item-32" class="menu-item menu-item-type-
post_type menu-item-object-page menu-item-privacy-policy menu-
```

```html
item-32"><a href="http://127.0.0.1/wordpress/privacy-
policy/">ABOUT US</a></li>
</ul>
    </div>
    </div>
     </div>
    </nav>


<!-- #site-navigation -->
<div class="tools">
<div class="form-section">
<button aria-label="search toggle" id="btn-search" data-
toggle-target=".search-modal" data-toggle-body-class="showing-
search-modal" data-set-focus=".search-modal .search-field"
aria-expanded="false">
<svg class="svg-inline--fa fa-search fa-w-16" aria-
hidden="true" data-prefix="fa" data-icon="search" role="img"
xmlns="http://www.w3.org/2000/svg" viewBox="0 0 512 512" data-
fa-i2svg="">
<path fill="currentColor" d="M505 442.7L405.3 343c-4.5-4.5-
10.6-7-17-7H372c27.6-35.3 44-79.7 44-128C416 93.1 322.9 0 208
0S0 93.1 0 208s93.1 208 208 208c48.3 0 92.7-16.4 128-44v16.3c0
6.4 2.5 12.5 7 17l99.7 99.7c9.4 9.4 24.6 9.4 33.9 0l28.3-
28.3c9.4-9.4 9.4-24.6.1-34zM208 336c-70.7 0-128-57.2-128-128
0-70.7 57.2-128 128-128 70.7 0 128 57.2 128 128 0 70.7-57.2
128-128 128z"></path></svg><!-- <i class="fa fa-search"></i> -
-></button>

<div class="form-holder search-modal cover-modal" data-modal-
target-string=".search-modal">
<div class="header-search-inner-wrap">
<form role="search" method="get" class="search-form"
action="http://127.0.0.1/wordpress/">
<label>
<span class="screen-reader-text">Search for:</span>
<input type="search" class="search-field" placeholder="Search
…" value="" name="s">
</label>

<input type="submit" class="search-submit" value="Search">
</form>
<button  class="btn-close-form"  data-toggle-target=".search-
modal"  data-toggle-body-class="showing-search-modal"data-set-
focus=".search-modal .search-field" aria-expanded="false">
<span>
</span>
</button>
<!-- .search-toggle -->
```

```html
      </div>
      </div>
      </div>


      </div>
      </div>
      </div>
      </header>


      <div class="top-bar">
       <div class="container">
      <div class="breadcrumb-wrapper">

            <div id="crumbs"itemscope=""
             itemtype="http://schema.org/BreadcrumbList">
              <span itemprop="itemListElement" itemscope=""
              itemtype="http://schema.org/ListItem">
            <a itemprop="item"
href="http://127.0.0.1/wordpress"><span
            itemprop="name">Home</span></a>
      <meta itemprop="position" content="1">
      <span class="separator">
      <span class="separator">
      <svg  class="svg-inline--fa  fa-angle-right  fa-w-8"  aria-
      hidden="true"     data-prefix="fa"     data-icon="angle-right"
      role="img" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 256
      512" data-fa-i2svg="">
      <path fill="currentColor" d="M224.3 273l-136 136c-9.4 9.4-24.6
      9.4-33.9 0l-22.6-22.6c-9.4-9.4-9.4-24.6 0-33.9l96.4-96.4-96.4-
      96.4c-9.4-9.4-9.4-24.6 0-33.9L54.3 103c9.4-9.4 24.6-9.4 33.9
      0l136 136c9.5 9.4 9.5 24.6.1 34z"></path></svg>
      <!-- <i class="fa fa-angle-right">
      </i> -->
      </span>
      </span>
       </span>


                    <!-- .error-holder/site-content -->


      <footer id="colophon" class="site-footer" itemscope=""
      itemtype="http://schema.org/WPFooter">
          <div class="footer-b">
      <div class="container">
      <div class="site-info">
      <span class="copyright">© Copyright 2020 <a
      href="http://127.0.0.1/wordpress/">MUDDI</a>. All Rights
      Reserved. </span>
```
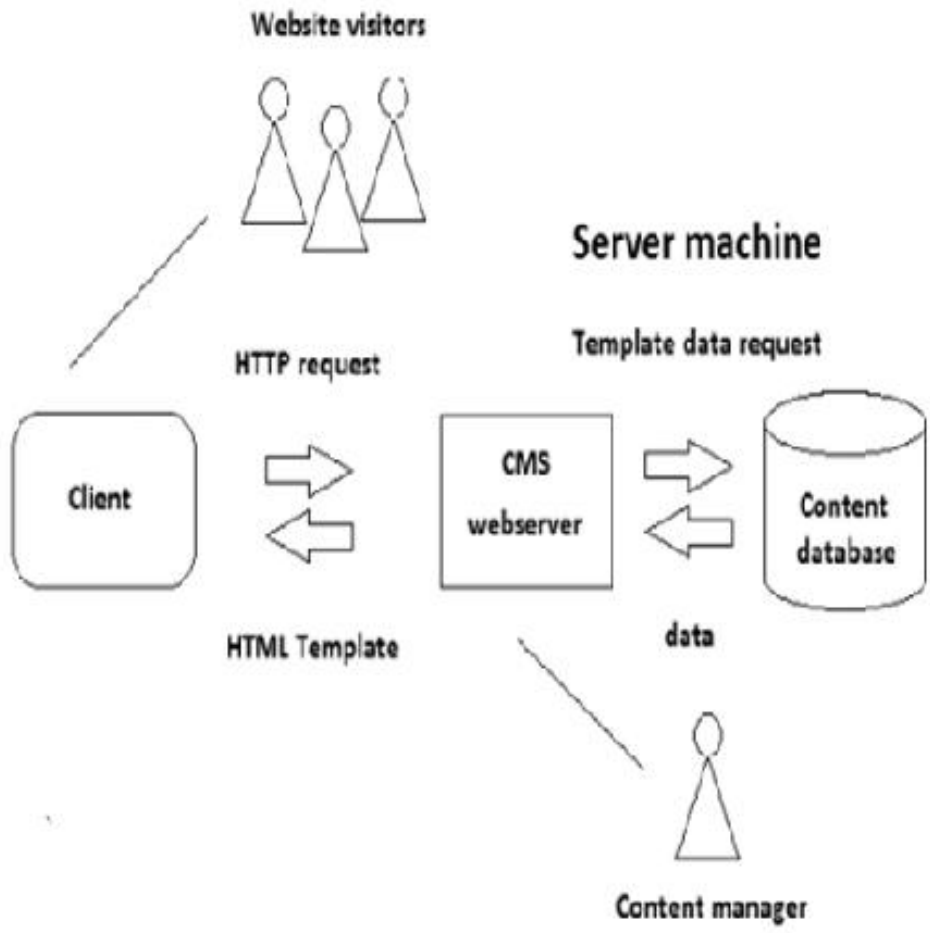
```html
            </div>
        </div>
        </div>
            </footer>
              <!-- #colophon -->
            </div>



    </body>
    </html>
```

Website visitors

Server machine

HTTP request

Template data request

Client

CMS
webserver

Content
database

HTML Template

data

Content manager

wp_termmeta
- meta_id BIGINT(20)
- term_id BIGINT(20)
- meta_key VARCHAR(255)
- meta_value LONGTEXT
- Indexes

wp_terms
- term_id BIGINT(20)
- name VARCHAR(200)
- slug VARCHAR(200)
- term_group BIGINT(10)
- Indexes

wp_term_taxonomy
- term_taxonomy_id BIGINT(20)
- term_id BIGINT(20)
- taxonomy VARCHAR(32)
- description LONGTEXT
- parent BIGINT(20)
- count BIGINT(20)
- Indexes

wp_term_relationships
- object_id BIGINT(20)
- term_taxonomy_id BIGINT(20)
- term_order INT(11)
- Indexes

wp_options
- option_id BIGINT(20)
- option_name VARCHAR(191)
- option_value LONGTEXT
- autoload VARCHAR(20)
- Indexes

wp_users
- ID BIGINT(20)
- user_login VARCHAR(60)
- user_pass VARCHAR(255)
- user_nicename VARCHAR(50)
- user_email VARCHAR(100)
- user_url VARCHAR(100)
- user_registered DATETIME
- user_activation_key VARCHAR(255)
- user_status INT(11)
- display_name VARCHAR(250)
- Indexes

wp_posts
- ID BIGINT(20)
- post_author BIGINT(20)
- post_date DATETIME
- post_date_gmt DATETIME
- post_content LONGTEXT
- post_title TEXT
- post_excerpt TEXT
- post_status VARCHAR(20)
- comment_status VARCHAR(20)
- ping_status VARCHAR(20)
- post_password VARCHAR(20)
- post_name VARCHAR(200)
- to_ping TEXT
- pinged TEXT
- post_modified DATETIME
- post_modified_gmt DATETIME
- post_content_filtered LONGTEXT
- post_parent BIGINT(20)
- guid VARCHAR(255)
- menu_order INT(11)
- post_type VARCHAR(20)
- post_mime_type VARCHAR(100)
- comment_count BIGINT(20)
- Indexes

wp_postmeta
- meta_id BIGINT(20)
- post_id BIGINT(20)
- meta_key VARCHAR(255)
- meta_value LONGTEXT
- Indexes

wp_usermeta
- umeta_id BIGINT(20)
- user_id BIGINT(20)
- meta_key VARCHAR(255)
- meta_value LONGTEXT
- Indexes

wp_comments
- comment_ID BIGINT(20)
- comment_post_ID BIGINT(20)
- comment_author TINYTEXT
- comment_author_email VARCHAR(100)
- comment_author_url VARCHAR(200)
- comment_author_IP VARCHAR(100)
- comment_date DATETIME
- comment_date_gmt DATETIME
- comment_content TEXT
- comment_karma INT(11)
- comment_approved VARCHAR(20)
- comment_agent VARCHAR(255)
- comment_type VARCHAR(20)
- comment_parent BIGINT(20)
- user_id BIGINT(20)
- Indexes

wp_commentmeta
- meta_id BIGINT(20)
- comment_id BIGINT(20)
- meta_key VARCHAR(255)
- meta_value LONGTEXT
- Indexes

wp_links
- link_id BIGINT(20)
- link_url VARCHAR(255)
- link_name VARCHAR(255)
- link_image VARCHAR(255)
- link_target VARCHAR(25)
- link_description VARCHAR(255)
- link_visible VARCHAR(20)
- link_owner BIGINT(20)
- link_rating INT(11)
- link_updated DATETIME
- link_rel VARCHAR(255)
- link_notes MEDIUMTEXT
- link_rss VARCHAR(255)
- Indexes

ADMIN

LOGIN

MANAGE SHOP

CUSTOMER SUPPORT

ADD/REMOVE PRODUCT

MANAGE USER

Use case diagram

CSDDP 123.07.00 SW

BROWSER FOR ITEM

LOGIN

CHECK ORDER

ADD TO CART

CANCEL ORDER BEFORE SHIPPING

PAYMENT DISCARD

LOGOUT

SEARCH AN ITEM

Customer use case diagram

CSDOP 123.077.00.SW

RATING ID INT PK
- MEMBER ID INT PK
- PRODUCT ID INT FK
- VALUE INT

*MEMBER ID INT PK
- USERNAME VARCHAR (100)
- PASSWORD VARCHAR (100)
- EMAIL VARCHAR (100)
- FULLNAME VARCHAR(100)
- ADDRESS VARCHAR (8)
- PHONE VARCHAR (100)

*PRODUCT ID INT PK
- PRODUCT NAME VARCHAR (100)
- PRODUCT TYPE VARCHAR (20)
- DESCRIPTION VARCHAR (100)
- STOCK INT
- PRICE INT

*COMMENT ID INT PK
- MEMBER ID INT PK
- PRODUCT ID INT PK
- MESSAGE VARCHAR(150)

*TRANSACTION ID INT PK
- MEMBER ID INT FK
- PRODUCT ID INT FK
- QUANTITY INT
- APPROVAL SALE VARCHAR(10)

CART ID INT PK
- MEMBER ID INT FK
- PRODUCT INT FK
- QUANTITY INT

	CSDDP 123.077.00 SW
	ER - DIAGRAM FOR ECOMMERCE SITE
	AS, IO-42