

**Ministry of Education and Science of Ukraine**  
**Ternopil Ivan Puluj National Technical University**

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Faculty of Computer Information Systems and Software Engineering

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(full name of faculty)

Computer Science Department

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(full name of department)

# QUALIFYING PAPER

For the degree of

Bachelor thesis

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(degree name)

topic: Development of a Web-application to support the work of a clothing store"

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Submitted by: fourth year student IV, group ICH-43  
specialty 122 "Computer Science"

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Ternopil  
2022

Ministry of Education and Science of Ukraine  
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«    »      2022 p.

**ASSIGNMENT**  
**for QUALIFYING PAPER**

for the degree of Bachelor thesis  
(degree name)

specialty 122“Computer Science”  
(шифр і назва спеціальності)

student Elemure Emmanuel Ariyo Job  
(code and name of the specialty)

1. Paper topic Development of a Web-application to support the work of a clothing store"

Paper supervisor Serhiy Marcenko, Ph.D.  
(surname, name, patronymic, scientific degree, academic rank)

Approved by university order as of «19» November 2021 № 4/7-979

2. Student's paper submission deadline 27.01.2022

3. Initial data for the paper Technical requirements for system

4. Paper contents (list of issues to be developed)

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

1. Title slide

2. Actuality

3. Purpose of work

4. Main part

5. Conclusion



## ANNOTATION

Information technology for generating technical support requests based on system and user data // Qualification work of the educational level "Master" // Mulbah Gayflor Yanfay// Ternopil National Technical University named after Ivan Pulyuy, Faculty of Computer Information Systems and Software Engineering, Department of Computer Science, ICH-43 group // Ternopil, 2021 // P. \_\_\_\_, fig. - \_\_\_\_, tables - \_\_\_\_, chair. - \_\_\_\_, annexes - \_\_\_\_, references. - \_\_\_\_.

Key words: information system, request, interface, technology, support, programming.

The relevance of this work is that the solution to the problem irrational spending of working time of specialists and satisfactory quality maintenance allows to reduce the load on the working staff of the department technical support, reduce waiting time, increase employee confidence in department.

The object of research is the process of customer support.

The subject of research - the process of forming an application for technical support with taking into account the receipt of system and user data.

The purpose of this project is to develop information technology formation technical support requests in order to optimize the activities of the technical support department for improving the quality of its work and optimizing the cost of working time of employees.

## **LIST OF SYMBOLS, SYMBOLS, UNITS, ABBREVIATIONS AND TERMS**

Services – Intangible economic activity is not stored and no ownership arises.

Company – A voluntary association formed and organized to conduct business.

Company application – Computer software used to perform a specific function.

Modern – A New Era of Different Ways of Working

Strategy – A Method Used to Perform Certain Tasks

Qualities – A unique feature of one object that distinguishes it from another.

Organization – A cooperative society with the same motives and goals.

Remote location – Anywhere with Internet access.

Access – Permission to website etc

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## INTRODUCTION

The internet trade is a method of realizing physical and intangible goods via the use of specific electronic grounds that allow orders to be processed remotely. The internet trade in Ukraine is progressing well. Does the number of sales in Ukraine expand continuously as a result of market research? as well as a surge in the number of electronic trade stores Despite the fact that the internet has long since and firmly invaded our lives, many business people and even major corporations do not comprehend why they should have their own Web. In truth, there are other well-recommended and tried ways of self-promotion: Banners, television, radio, mass-media, banners.

The economic downturn forces salespeople to focus on the growth of online commerce.

High charges have an impact on traditional counter sales through high leasing rates, personnel charges, and so on, as well as a change in consumer behavior: more Ukrainians are searching for cheaper commodities on the internet before making a purchase.

Electronic stores would not replace existing retail locations; rather, they will broaden their scope and market. In some industries, the absence of online stores is a strategic disadvantage. The web resource enables businesses to present information about their products or services in a concise and comprehensive manner. In addition, the Web-application can report news, changes in the price list or mode of operation, and customer reviews. The factors listed explain the importance of Web-application development:

Increase the rate at which information is distributed to a significant number of people,

improve the appearance of the clothing store,

increase in popularity,

makes customer feedback available.

Marketing research organization.

Advertising and attracting customers and customers.

Marketing research organization. The goal of qualifying work is to create an online store that will be used to provide services related to the sale of fashionable clothing. To achieve this goal, you must complete the following tasks:

- Investigate the processes of Internet organization.
- Analyze analog sites in order to create a technical specification. – Choose and configure the tools for implementation.
- Choose and configure the tools for implementation.
- Create a data structure and a website.
- Create user instructions and implement applications.



## **1 ANALYSIS OF SUBJECT AREA**

### **1.1 A summary of recent research and publications**

Sites have grown in size in recent years. Almost every company, including small businesses, has its own "representative office" on the Internet, and authors of new products or technologies can expect to be successful in attracting advertising on the network. With increasing competition and the development of modern technologies, stores must now construct information systems that include a set of tools required for successful business management in modern conditions. The active development of the Internet has necessitated the creation of sites that provide a wide range of information. The sites are quite varied. There are both small sites that provide a brief overview of the company and its services, and led by the volume of Internet catalogs with detailed product characteristics, images, and prices. Typically, such an online catalog is designed so that the user can find a detailed description of the product as well as an image of it.

That is, in this case, the site serves as a product advertising catalog. An electronic store is a software application created with e-commerce system technology. The e-shop, like any other store, performs the following basic functions: presentation of products (services) to the consumer, order processing, sale, and delivery of goods.

The online store combines elements of direct marketing with a traditional store. When compared to traditional forms of transactions, the distinguishing feature of online stores is their ability to provide a large number of products and services, as well as provide consumers with a wealth of information needed to make purchasing decisions. Furthermore, with the help of computer technologies, each client can be personalized based on the customer's previous purchases and history of visiting the store.

The combination of Internet technologies and traditional trading activities is the main issue in the implementation of the online store. Buyers are accustomed to the fact that products can be evaluated visually to determine their quality and characteristics in everyday commerce. Such features are not available in eCommerce. Visual information is usually sufficient, but emotional and psychological factors will come into play here. Typically, there are issues with the delivery of goods, particularly at low prices.

According to the most recent data, online audiences are rapidly expanding, online sales in major cities have reached 25%, and experts emphasize the trend of increasing sales via the Internet. Every year, the number of online stores grows because they are extremely profitable and convenient for buyers, not to mention cost-effective and time-saving. The online store is open 24 hours a day, seven days a week, and some products can be sold automatically without the seller's involvement. One of the benefits is that you don't have to buy goods ahead of time, which saves a lot of storage space. All you have to do is reach an agreement with the supplier and purchase the goods that will be ordered when the time comes, in comparison to regular stores, the sales area is limited to the population of the city or region, whereas the online store's coverage area is not limited, because goods can be delivered not only by express delivery, but also by mail.

The goal of this thesis project is to create an online clothing store. This system will be used within a specific enterprise as the primary platform for commercial activities. Regarding the sale of clothing, it should be noted that this niche is still underserved, and thus the competitiveness of measures to create an online sales platform for these products is quite high. Furthermore, this product appeals to both the male and female halves of the population, emphasizing the Internet Store's importance.

## 1.2 Analysis of software products

- analogues for analysis, several sites with similar topics and purpose were selected. One of these sites is the site of the women's clothing store DIEVA, presented in Fig. 1.1.

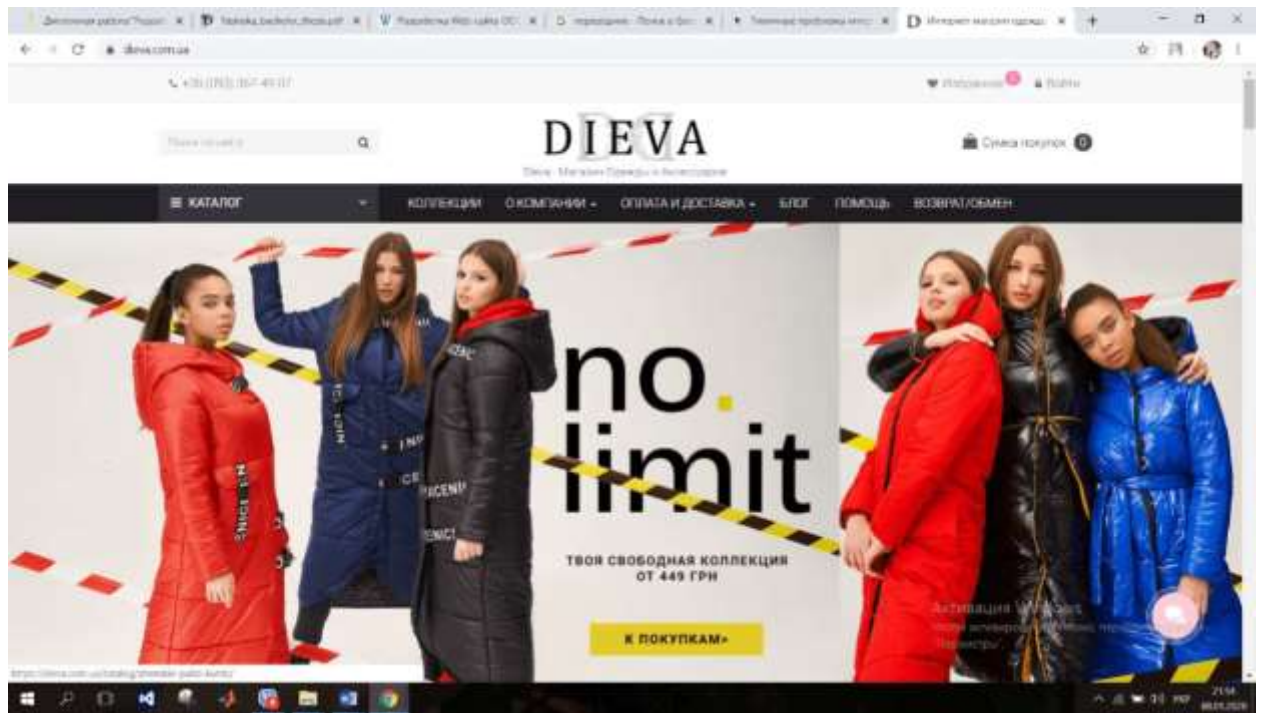


Figure 1.1 - Main page of the Site DIEVA

DIEVA's functionality has some drawbacks. Because the store's specialty is clothing, you should pay attention to features like "product options." That is, the buyer should be able to select the color and size of the clothing. The price can be adjusted based on the size and color. Marketing functions are also important in order to increase sales. What can be included in this section. "Zoom" images – zooming in on a picture is very important when deciding on a product, and even more so when uploading videos.

The VAGS website presented on Fig. 1.2.



Figure 1.2 - The main page of the VAGS site

The benefit of this site is a relatively user-friendly interface, the possibility of a star connection, and the ability to improve the product's image. However, this website has drawbacks, such as the lack of a change in attire color and a limited number of available sizes. Furthermore, each product has a relatively brief description of the product, which is important for the buyer when purchasing.

The site SHOPSTYLE, whose major theme is the sale of outfits, has also been chosen for the analysis.

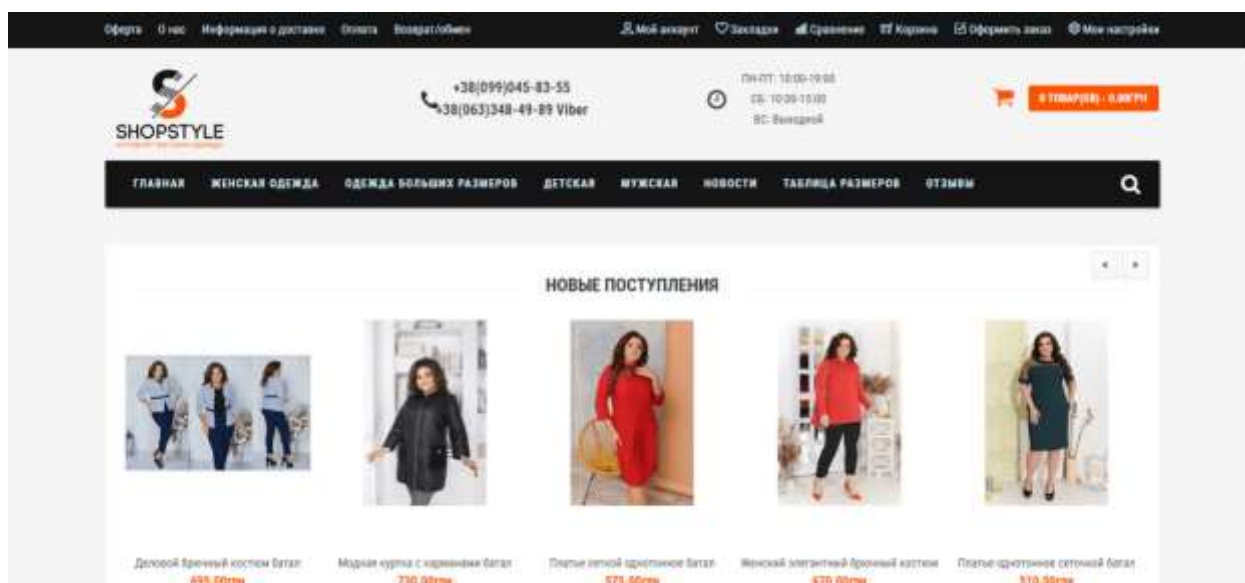


Figure 1.3 - SHOPSTYLE Site Master Page

This website also has drawbacks, such as the inability to customize the size and color of the face. Furthermore, the lack of a detailed product description makes it impossible to properly assess this product. A large number of applications based on this plan have been developed to date, but they all have drawbacks. After reviewing the majority of the existing applications, you can identify several flaws, including: Irrelevant information. Your company is growing, the products in stock are changing on a daily basis, new ideas are being generated, and stimulating promotions are being implemented. However, you may not always have the opportunity to update information in the web application.

Effortless Usage. A common developer error occurs when a potential customer is unable to independently determine how to place an order, where to click to learn about delivery conditions, and where to tick the selected product brought home. Design is out of date. Orders are being processed slowly.

Table 1.1 – Analysis of development software

Criteria	Web-App DIEVA	Web-App Vags	Web-App Vshop.stridecoder.com
Possibility Feedback	-	+	+
Convenience of Usage	+	+	-
Slow Order Processing	+	-	-
Outdated Design	+	+	-
Possibility to Zoom-in Pictures	-	+	-
Visible Price	+	-	+

As a result of analyzing sites with similar topics and purposes, the plan is to create a website that would not have the flaws found on the sites presented. This development will have all of the benefits of these sites, as well as a distinct design and user-friendly interface.

### **1.3 Implementation options at the moment**

A web developer is faced with a variety of tasks, ranging from the creation of interactive entertainment sites to serious business projects that necessitate increased reliability and security from unauthorized access. To put them into action, the right tools are required – programming languages, framework, or, increasingly, content management systems. Today, there are numerous programming languages available. The decision is based on the programmer's knowledge and whether it is sufficient to carry out the project.

### **1.4 An overview of programming languages in general**

A programming language is a formal system of symbols used to create computer programs. The programming language specifies a set of command, syntax, and semantic rules that govern the appearance of the program as well as the actions taken by the performer (computer) under its control.

The graph below depicts the popularity of programming languages for website development (Fig. 1.4)

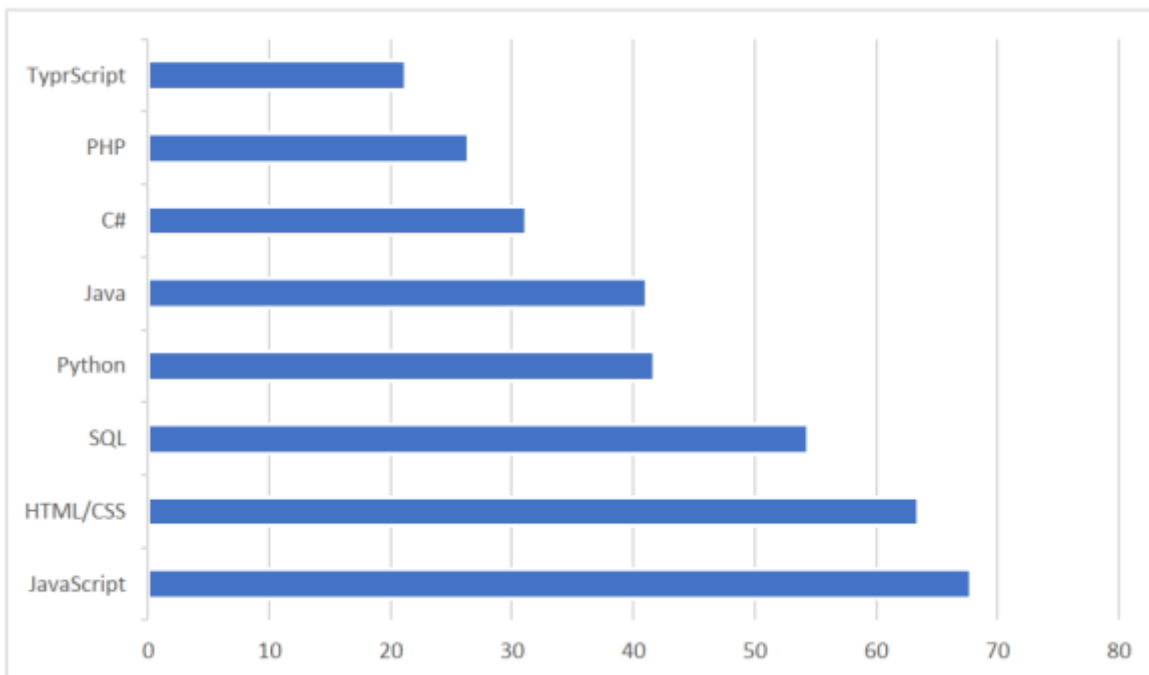


Figure 1.4: Programming language popularity among web developers.

All web programming languages can be divided into client and server languages. As defined by the name, the client language is used to write client applications (web browsers) and server language for server-side applications

The most popular JavaScript language is included in the client programming language. JavaScript is a programming language that is used to manage web browsing scenarios. The main feature of this language is that when you use it, the display environment elements on the website may change while you browse it, so the page will not be reloaded. JavaScript, for example, can be used to change the color of a webpage, replace images embedded in a web page, create a new display window, or display a message.

When developing a web interface, the equally popular CSS and HTML markup languages are used alongside JavaScript; they are not a detriment. HTML is an abbreviation for hypertext markup language, which is the language of the web browser that creates the website. CSS is a formal language used to describe the appearance of markup-language documents. CSS is used by website builders to

control fonts, their placement on the page, and other aspects of how web page blocks appear.

The popular SQL programming language is included in the server-based web programming language. SQL – allows you to extract specific information from large, complex databases. It is in high demand in such a large company as Microsoft, so for any developer with ambitions or who requires regular use of the database, this is a reasonable choice.

In comparison to other server programming languages, this one is a beginner. Python is a dynamic, versatile language that is very easy to learn. The syntax is simple, easy to read, and, most importantly, intuitive, making it a new favorite among developers.

Java was created in the 1990s and is still the most widely used programming language today. Java is the gold standard in all aspects of web development around the world. It is object-oriented and can run on any platform, making it very useful. Java Server Page (JSP) is a j2EE technology used to create websites in Java. JSP and ASP.NET have a lot in common, and the choice of these two technologies is usually based on the developer's preferences, rather than the benefits or drawbacks of these platforms.

C# is now one of the most powerful, rapidly growing, and widely used programming languages in the IT industry. It currently contains a wide range of applications, ranging from small desktop programs to large-scale web portals and web services that serve millions of users every day. Of course, PHP is the most popular web programming language.

It is a scripting language that is widely used in web application development. Its main advantages are: free software, simple syntax, high speed, and a large developer community.

PHP is an abbreviation for Preprocessor for Homepage. It is a scripting language that is embedded in an HTML page and runs on a server. Most of its syntax is borrowed from languages like C, Perl, and Java, but it adds many



functions that these languages lack. PHP has the functionality that almost all web programmers' desire. Its goal is to get you up and running with dynamic web pages as soon as possible. It is safe to say that learning about and using PHP is beneficial to both novice and experienced programmers. PHP is a dynamic programming language that does not require the data type to be specified when declaring variables or declaring the variables themselves.

PHP supports several object-oriented features and is fully supported in the language's version five. PHP supports all three major OOP mechanisms: encapsulation, polymorphism, and inheritance, with the parent class specified by adding the `extends` keyword to the class name. The most significant benefit is that many popular CMS are written in PHP variables.

### **1.5 Site Content Management System Overview**

Do not proceed without selecting a content management system in order to achieve the goals established during the process of developing the terms of reference. A content management system (CMS) is a type of program that is commonly used on the Internet. The phrase "Work on the Internet" refers to the service provider's CMS hosting service.

All site management systems, in general, create a foundation for communication with site users, news, photos, personal messages, and so on. As a result, the selection of a specific system will be determined by the project's focus and complexity. There are numerous site management systems available on the market, and it is difficult to analyze and select the best CMS for online store development. On the agenda

The most popular content management systems are listed below. (Fig 1.5)

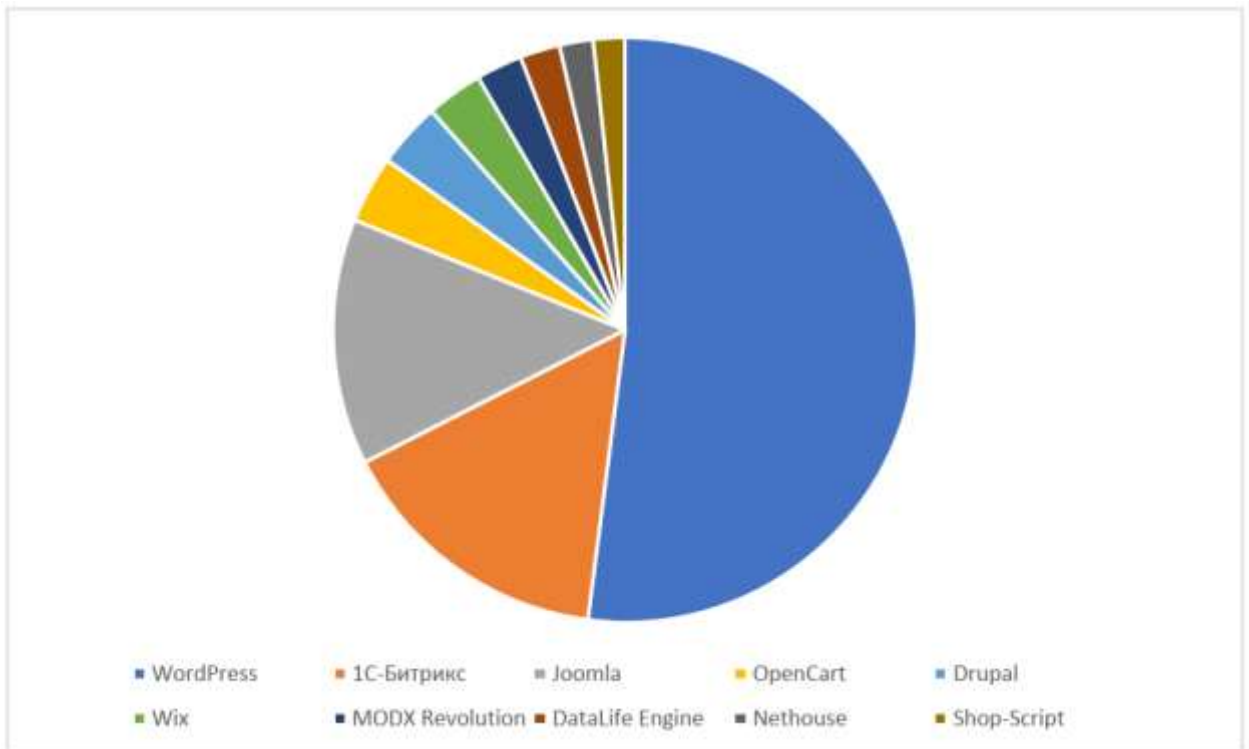


Figure 1.5 - CMS popularity rating

It is obvious that it is impossible to consider all CMS, so the most popular WP site management system will be chosen.

Modern site management systems are written in PHP, which is the market leader in web-based programming languages today. The foundational data is a tried-and-true free MySQL database. Except for MySQL, commercial versions of the database are available, but they are used far less frequently.

The “WP” site management system is one of the main popular website creation systems on the Internet. There are many reasons for this, which can be divided into two categories: SEO and custom.

The reasons for WP's popularity among SEO professionals include, first and foremost, excellent search engine indexing. Furthermore, because “WP” is open source program, there are a plethora of no pay templates and plugins available in the public domain.

Another advantage of “WP” is that php code can be edited directly from the panel for administrator, eliminating the must connect to a ftp server remotly. The

system has an easy interface and a large number of simple templates. That is why WP sites are so popular.

WP has the following features:

The system give possibility you to create publications using third-party programs.

There were no issues with installation or setup.

Supports the creation of automatic RSS processing, as well as help and functions for updating the pingback list.

A system simplification that interacts with modular code.

Annotation of the "theme" as the implementation of a set of files improves speed and flexibility significantly.

Themes allow you to easily change the appearance of your data.

Because of this architecture's high potential, complex solutions can be implemented.

Countless volumes of "themes" and "plugins" libraries.

Architecture potential is available for the implementation of complex solutions at the expense of the mortgage.

Make use of readable URLs.

The majority of website dorectors are concerned about WP security.

The central concept is that WP is an open-source CMS code that is vulnerable to all types of attacks.

In fact, WP sites are sometimes fairly well protected from attacks. AND, on the other hand, it is sometimes easily broken. However, WP is not always to blame.

Consider the following recommendations for protecting your WP site, which will assist in resisting the most common methods of site attack.

1. Blocking failed login attempts may easy solve the event of continuous attempts by brute force - hacking the website by selecting a password. When an

attempt is made to hack using repeaters with incorrect passwords, the site is blocked for the attacker's "Ip-address".

2. Another good security measure is to enable two-factor module authentication (2FA) on the administrative panel site's login page. In this case, you must use two data types to log in. The website owner has the option of selecting which components to use. It could be a standard password followed by a secret question, a secret code, a character set, or the more popular Google Authenticator app, which sends a secret code to your phone.

3. By default, you must enter your own username and password to log in to WP. It is more secure to use email instead of a login user. The reasons for this are self-evident: usernames are easier to guess than email addresses.

4. Changing your login URL is one of the simplest ways to protect your site from hacking by selecting a password. When hackers know the direct URL of your login page, they will try to execute a search for login and password in order to gain access to the admin.

5. Authorized users who leave your site open pose a significant security risk. Anyone from outside can take advantage of this and cause damage to your site by accessing the administrative panel.

6. The wp-admin folder is the most important component of any WP site. As a result, if this folder is damaged or deleted, the site may become completely inoperable. One way to prevent this is to password-protect the wp-admin directory. Making use of this security measure

By entering two passwords, the website owner can gain access to the control panel. One secures the login page, while the other secures the WP administrator area.

7. Using SSL (Secure Socket Layer) for admin panel protection is a good idea. SSL secures data transfer between user browsers and the site server, making it difficult for attackers to hack the connection or forge your information.

8. When you install WP, the system prompts you to specify the prefix for default database tables: wp-. It is recommended that you change the table prefix on your own to make it unique. By default, using the prefix for makes the site database vulnerable to SQL injection attacks.

9. It is critical to use a strong password when connecting to a WP site database. After all, if they breach the base, all other security measures implemented on the site will be rendered ineffective.

10. Users with administrator rights in WP Control Panel can edit any file, including system and WP files. This includes plug-in and theme files as well. If you forbid it, No one will be able to change any files, either accidentally or intentionally, even if the hacker gains administrator access to your WP management panel.

Basic security measures for your WP site against the most common types of attacks and hacks. By adhering to these guidelines, you can significantly improve the security of your website and avoid a large percentage of potential problems.

HTML, CSS, and JavaScript programming were chosen to develop the customer section of the online store because they are the most popular languages for web development and are relatively simple to learn.

The server component will be developed using the PHP programming language. This language is actively used by many websites and is relatively simple to learn. The most popular control system content also employs this programming language, which allows for the development of additional functionality.

In addition, thanks to the PHP programming language, additional functionality and system modules for the implementation of all processes will be developed during the development of the site in the absence of the necessary extensions.

To ensure the site's security, the WP version control system will be used for development, along with additional plugins.

## 1.6 Statement of the problem

The thesis project is designed so that the user can easily select and order clothing without leaving the house.

An online store should be implemented as a website that is accessible via the Internet. The site should be made up of interconnected parts, and the functions of each part should be clearly separated.

The following features should be included in this application:

Product search options include searching by all categories and searching by a specific category.

- Filter products by popularity, rating, price increase, decrease, and price range.
- Cart of goods.
- Making a purchase.
- Methods of feedback
- Authentication.
- Administrative committee.
- "Most popular products" plugin.
- The administrative panel is protected on three levels.

The site should be divided into two sections: administrative and customs.

The administrative section of the site allows you to add, edit, and delete the contents of static and dynamic pages, sections, and site blocks.

The website's user interface must be clear, intuitively represent the structure of the information placed on it, and allow users to navigate to sections and pages quickly and logically.

Availability of navigation on all pages of the site. Correct structure information allows users to easily continue research site, while remaining confident that they will always be able to effortlessly return to previously viewed pages.

To achieve the goal of qualifying work you need to solve the following tasks:

- Research the processes of e-commerce organization.
- Analyze analog sites in order to create a technical task.
- Choose and configure the tools for implementation.
- Design the website and define the data structure.
- Create user instructions and implement applications.

## 2 MODELING AND DESIGN

### 2.1 Modeling the sports section's process in IDEF notation

At level 0, the entire process is regarded as a functional block, complete with all necessary working and control facilities. This chart, too, displays all of the necessary data and input information used to place an order for clothing.

The level 0 diagram is shown in Fig. 2.1

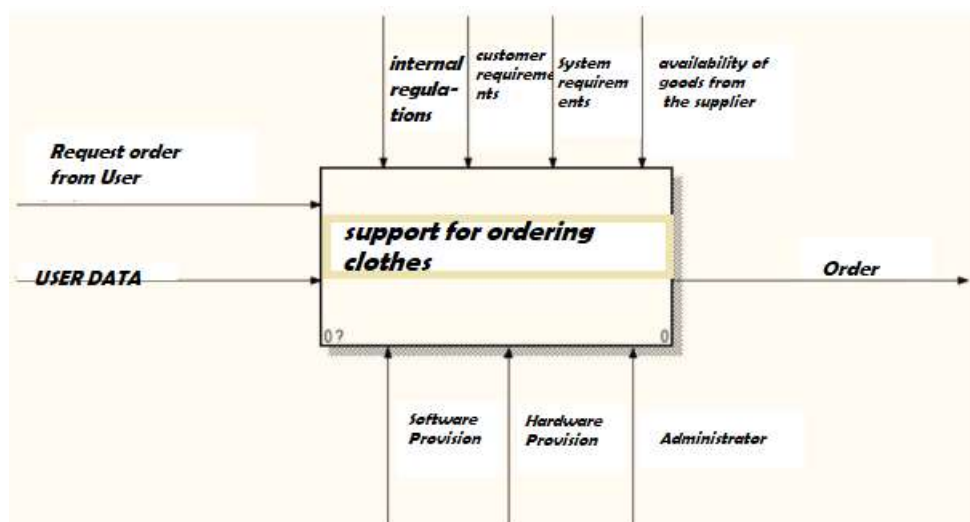
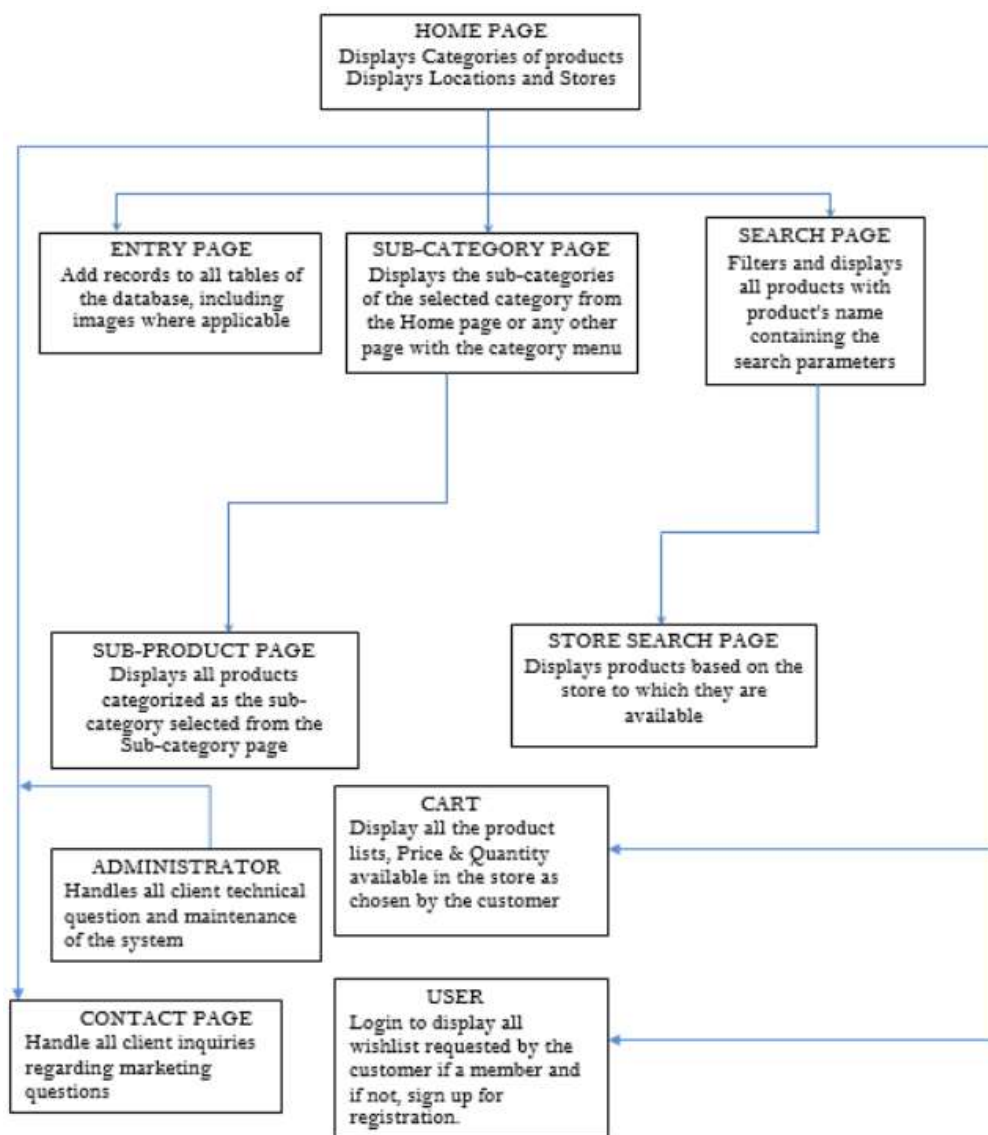


Figure 2.1 - Context model

The first level diagram describes in detail the zero-processing function equal. Therefore, the functional block 0 decomposes into a set of interconnected under functions.

A variant of the diagram for this project is presented presented in Fig. 2.2





**Figure 2.2 - Decomposition model**

## 2.2 Options for using a web application in a model

An example usage diagram can be expressed as a level-descending process from the most general and abstract conceptual models of the source system to the logic of the corresponding software system, and then to the physical model.

The diagram's essence is as follows: the developed system is presented in the form of entities or entities that interact with the system via so-called use cases.

The participant in this case is any organization that interacts with the system from the outside. It could be a person, a technical device, a program, or any other system that acts as a source of influence on the developer's modeling system.

In his case,

In turn, use cases are used to describe the services provided by the system to participants. In other words, each use case specifies a specific set of operations that the system executes after speaking with participants. In figure 2.3, A diagram of an online store is provided as an example.

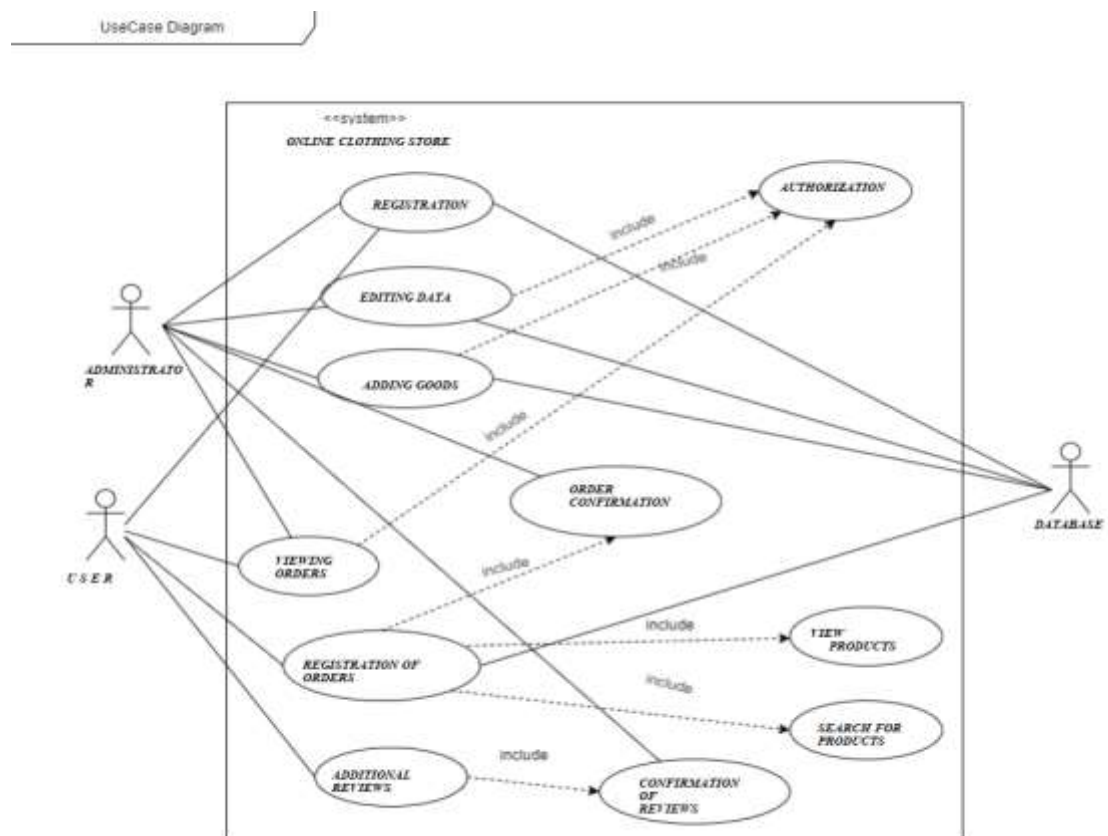


Figure 2.3 – Diagrams of usage options

### 2.3 Analytical model of the developed software

Using a precedents chart, options for use identify the main users of the system and the tasks that this system must decide. It is described using an activity diagram, which shows a sequence of actions for each precedent that is required to

achieve a specific goal. A communication diagram is a special interaction diagram that focuses on data exchange between different participants in the interaction. The communications diagram does not need to show each participant as a lifeline and displays the message sequence vertically. Instead, participants can be placed at will, allowing communication to demonstrate the participants' relationship and use numbers to represent message sequences.

The finished product is depicted in Fig. 2.4.

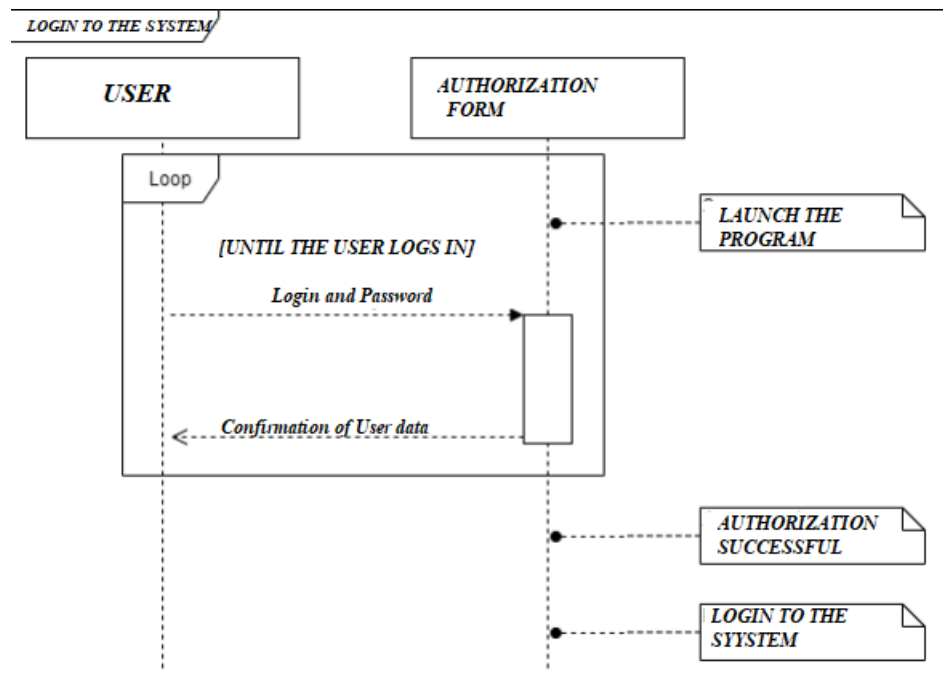


Figure 2.4 - Logout sequence diagram

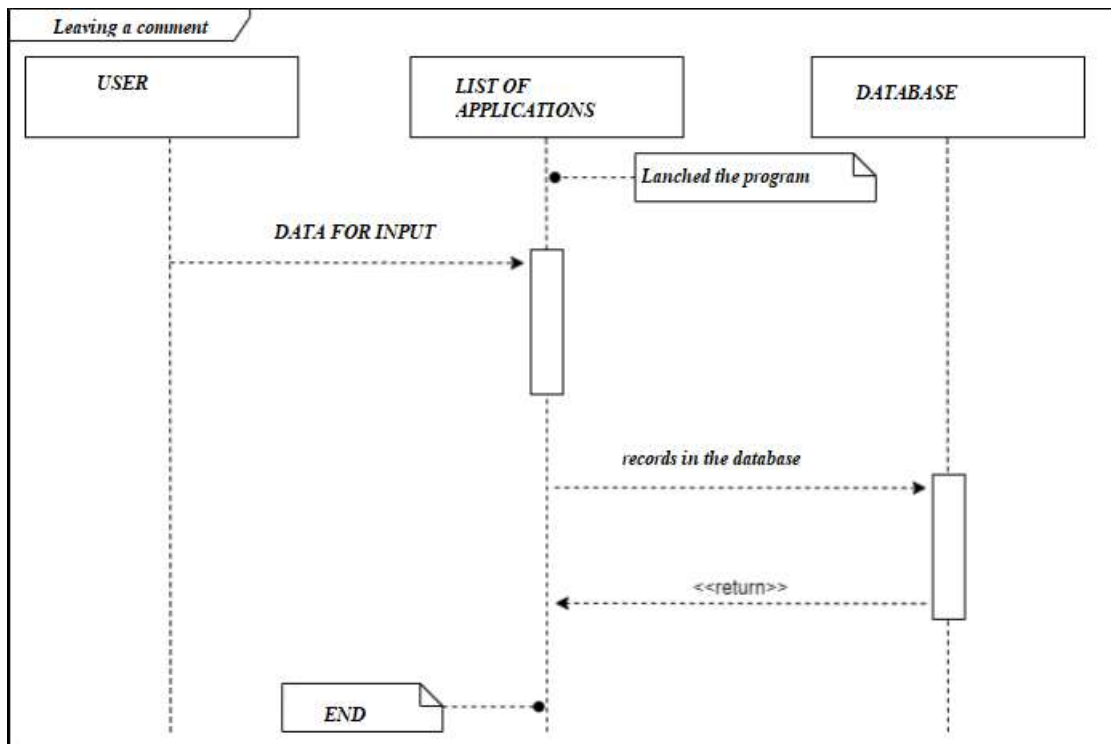


Figure 2.5 - Comment sequence diagram

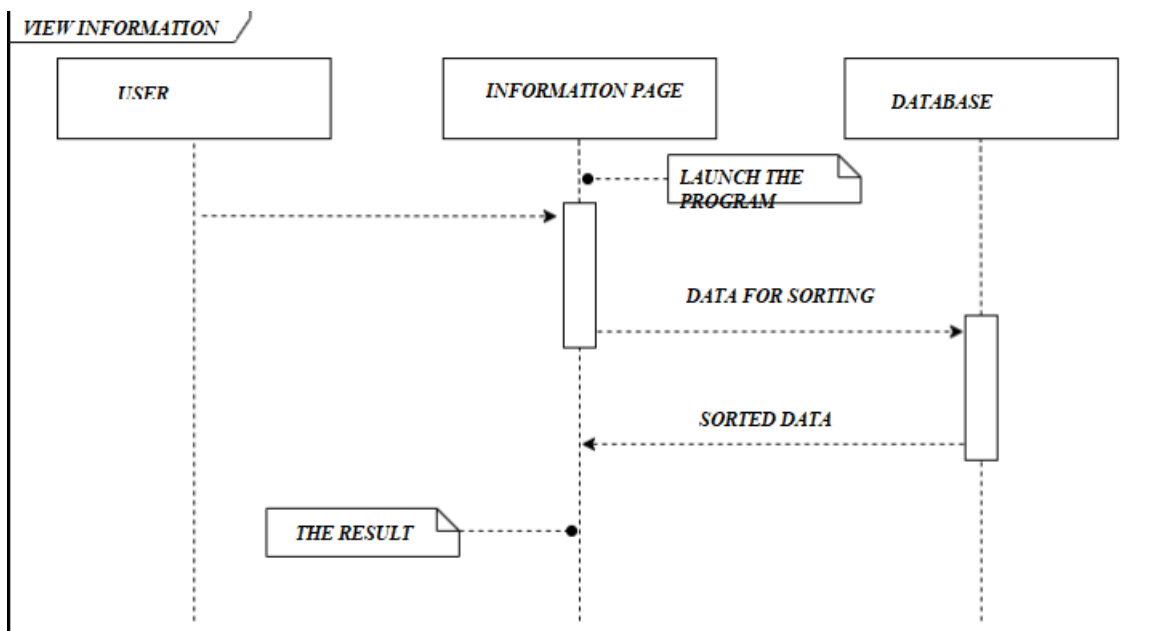


Figure 2.6 - Information sequence diagram

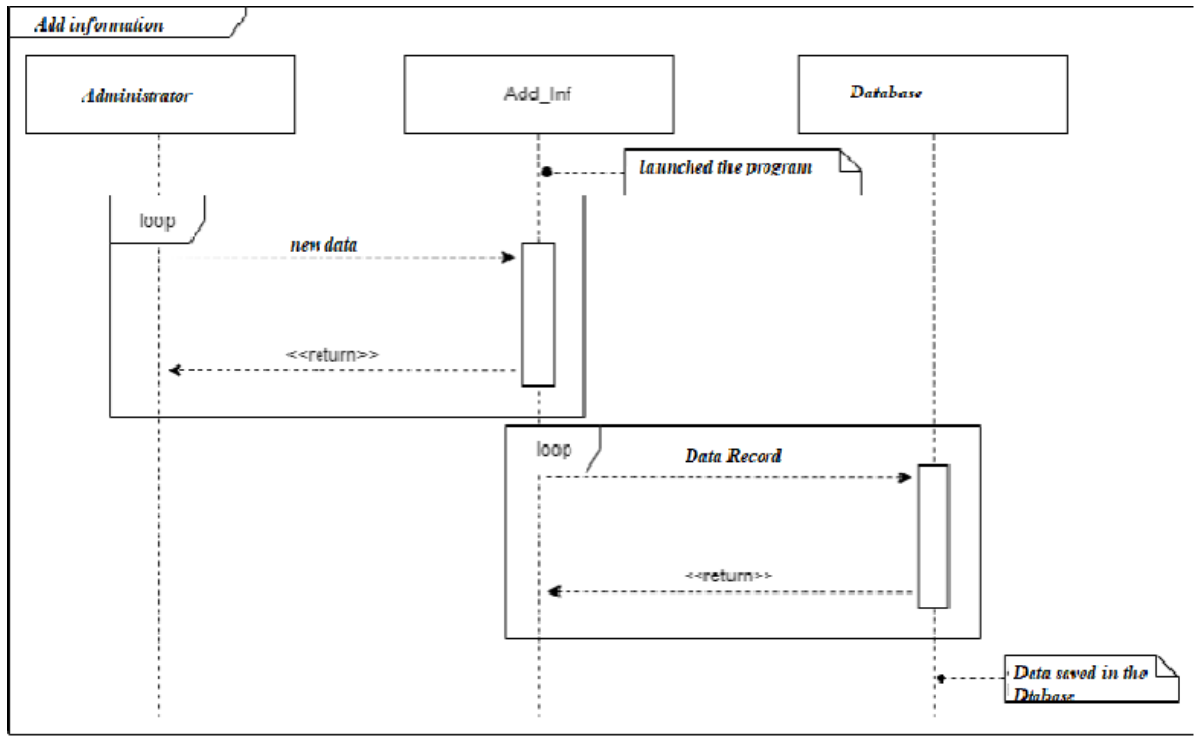


Figure 2.7 - Sequence chart of adding information

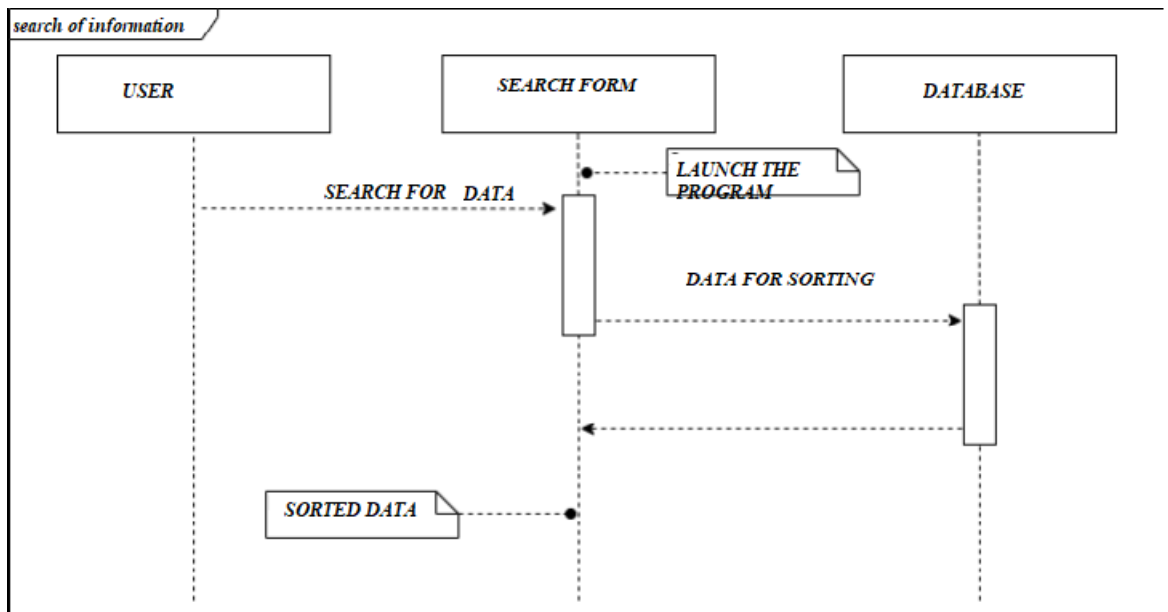


Figure 2.8 - Sequence diagram of information retrieval

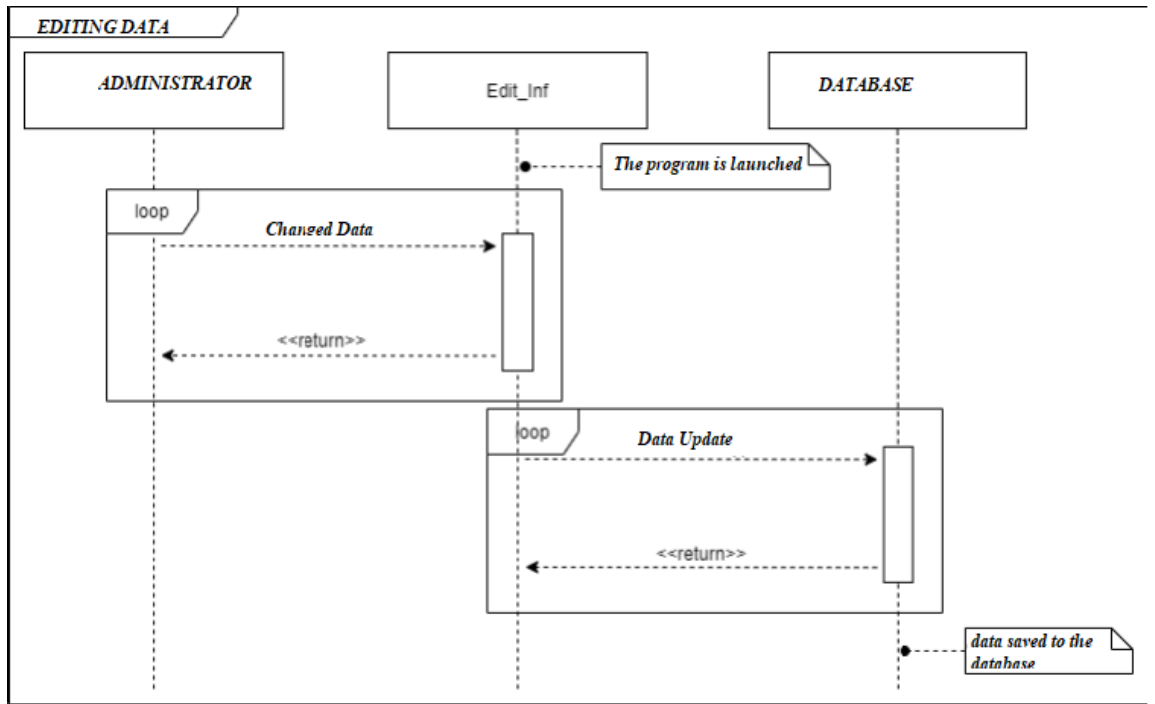


Figure 2.9 - Diagram of the sequence of editing information

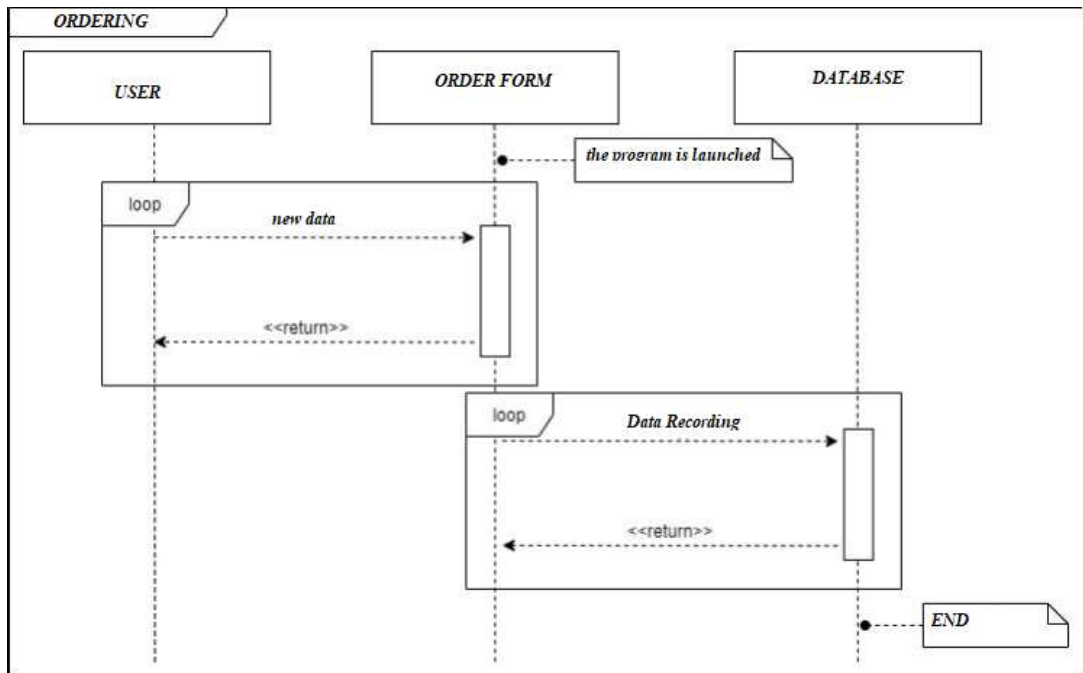


Figure 2.10 - Diagram of the order sequence

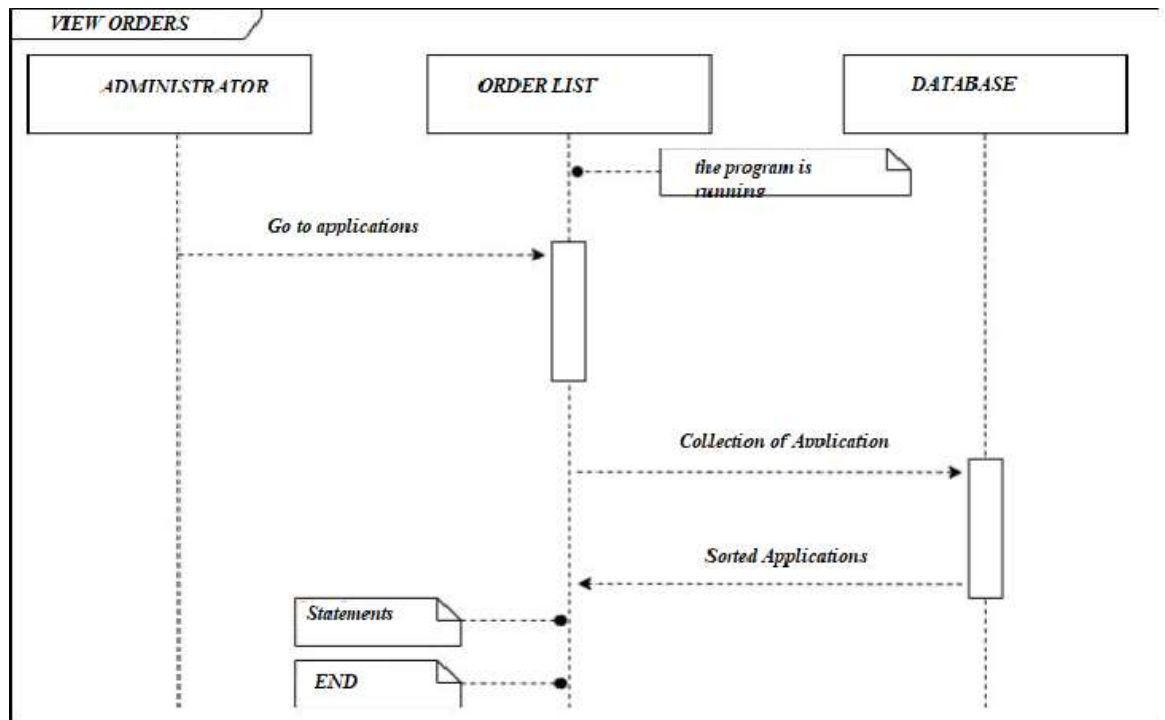


Figure 2.11 - Order Sequence Chart

## 2.4 Design of information system

After the task for the development of the website design has been approved, the development process begins. The main page sketch was created while focusing on the technical task.

As a result of this stage of work, the so-called "slicing a website," i.e. a ready-made template that will be used as a foundation to develop individual pages, was obtained. The process of creating a template begins with the creation of a "skeleton" in HTML markup language. Then, with the help of language Cascading CSS styles, the look of a website is shaped and visual forms of elements are provided for ease of use.

## 2.5 Designing a database model

UML (Unified Modeling Language) is a modeling language that is used in object-oriented programming. It is an essential component of the unified software development process software. The UML model is a broad-based language and open standard that uses graphical notation to create abstract models of systems. UML was developed primarily to aid in the visualization, design, and documentation of software systems. Although UML is not a programming language, code can be generated by executing UML models as interpreted code.

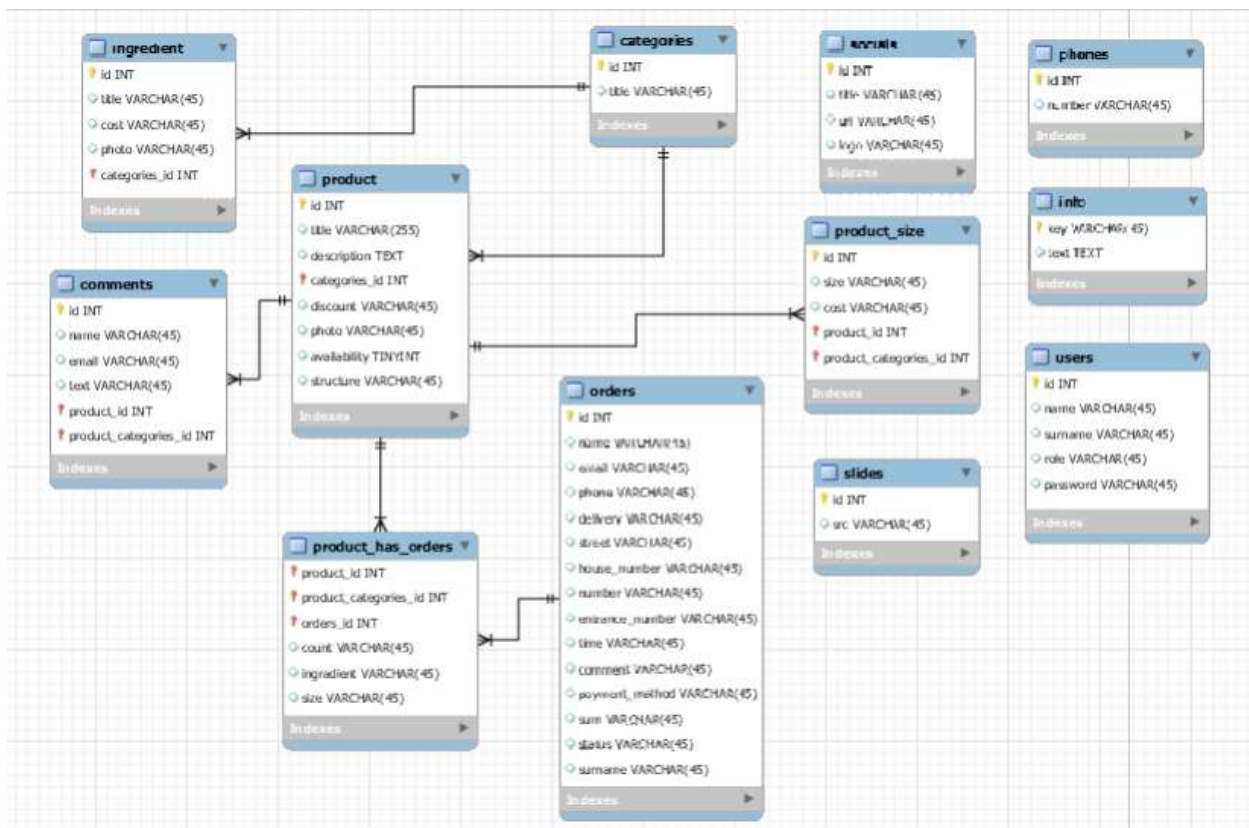


Figure 2.13 - UML diagram of data flows



## **3 SOFTWARE IMPLEMENTATION**

### **3.1 Web application architecture**

The site will be divided into two sections: administrative and custom. The administrative section of the site allows you to add, edit, and delete the contents of static and dynamic pages, sections, and site blocks.

The website's user interface must be clear, intuitively present the structure of the information posted on it, and allow users to quickly and logically navigate to sections and pages.

The following sections should be included in the web application:

- women's clothing page - includes the following categories:

- Pants;
- Jeans;
- Leggings;
- Outerwear;
- Windbreakers;
- Jackets;
- Coat;
- Costumes;
- Classic;
- Sports;
- Blouses;
- Dresses;
- Mini dresses;
- Copper dresses;
- Skirts;



- 1) configure the domain's DNS hosting;
- 2) add a domain to the control panel hosting.

After the site has been successfully created, you can begin installing the WP CMS.

### 3.2.1 Installing WP

Hosting "Ukraine" enables CMS installation both manually and with the assistance of third-party services. Other popular content management systems, in addition to WP, can be installed using additional services, including concrete5, joomla, Drupal, OpenCart, Coppermine, modx-revolution, moodle, osCommerce, smf, typo3, VamShop, and Zen Cart.

Among them are those that enable you to create and manage e-commerce websites.

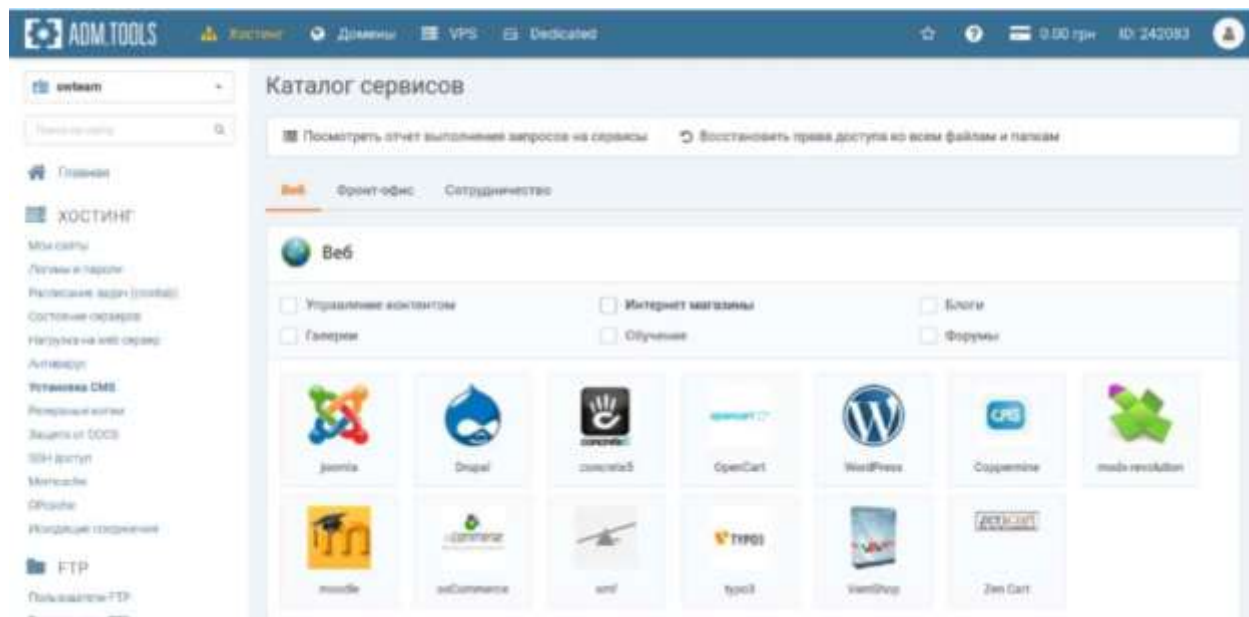


Figure 3.2 - Catalog of CMS services

After choosing the WP CMS, you need to select the address of the created site and created database, and fill in other required fields such as password, login, administrator e-mail, site name and interface language (see Fig.3.3).

Home » CMS installer » WORDPRESS

### CMS installer - WordPress

Admin name:

login name of the website administrator

Password:

Password must contain the following:

- at least 8 characters
- a lowercase letter
- an uppercase letter
- a number
- alphanumeric characters only

Admin e-mail:

Email address of the website administrator

Language:

Path for installation:

Enter the path (directory) where the CMS should be installed. For installation to the main directory of domain/subdomain, leave the field (Directory) empty. In case of a subdomain in a new subdomain, please create it in the subdomains module first.

Figure 3.3 - Installing WP

After WP has been successfully installed, the next step is to install WP Emerge. WP Emerge requires Composer to be installed.

WP Emerge requires Composer to be installed. Composer is a PHP package manager that provides a standard format for dependency management software and required libraries. You must first download the WP Emerge start theme to the WP themes folder, and then create a configuration file based on `config.json.dist` in this stratum theme. Then run the following command:

Composer install

Then wait until all the necessary for the micro framework components will be installed. Next, activate the theme in the admin panel (see Figure 3.4).

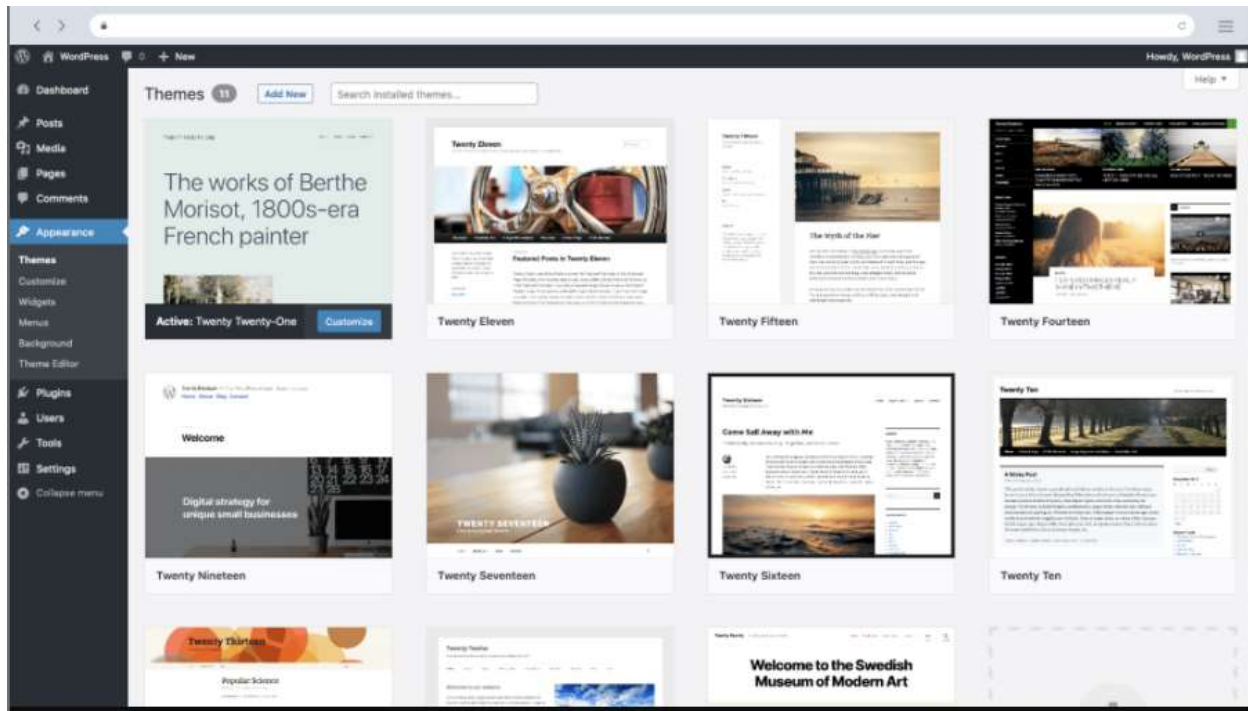


Figure 3.4 - Activated start theme

You must also install additional plugins. To make certain that the WooCommerce plugin is installed in the online store. WooCommerce is a highly specialized plugin that allows you to create online stores using the WP engine. The plugin is especially popular among business owners. Essentially, as the leading open-source e-commerce platform for WP, WooCommerce has a large and rapidly growing user community. Its seamless integration with WP makes installation and management a breeze. Because WooCommerce can be used in conjunction with WP alone, it may not be the most appealing solution for all retailers and brands.

However, for those who already use WP, the scalability provided by WooCommerce makes it particularly appealing.

A Google plug-in will be installed to keep your site secure Authenticator. The Google Authenticator plugin for WP provides a two-factor authentication with Google Authenticator for Android / iPhone / Blackberry.

### 3.3 Project structure

Once everything is installed and set up, it is possible consider the structure of the project (see Fig. 3.5).



Figure 3.5 - Project structure

The project consists of the following catalogs:

app / helpers /

Directory for adding PHP auxiliary files. Auxiliary files should contain only function definitions. Below is information about where to do actions, filters, classes, etc.

app / setup /

Directory to change files according to the needs of the site. These files should

Directory to add files JavaScript files to add them to

contain registrations and declarations of WordPress objects, such as publication types,

taxonomy, etc.

app / src /

Directory for adding PHP class files. All classes in the area

App \ namespace is automatically downloaded according to the PSR-4 standard.

resources / images /

Directory for adding images. Optimized copies will be posted in dist / images / during the build process.

resources / styles / theme /

Directory to add .css and .scss files to add to interface package.

resources / styles / [admin, editor, login] /

These directories are for administrators, editors, and login groups in accordance. They work the same with basic resources / styles / theme / directory.

resources / scripts / theme /

outdoor unit. The entry point is index.js.

resources / scripts / [admin, editor, login] /

These directories are for administrators, editors, and login groups in accordance.

They work identically to the main resources:

resources / scripts / theme / directory theme /.

Directory to add view themes, added to heme / partials / or theme / templates / respectively.

You should avoid adding any PHP logic, if this does not apply to layout (PHP logic should go to the auxiliary WP Emerge files or controllers)

### 3.4 Development of the main functionality

The following code shows routes with the ability to integrate the rule rewriting

```

Router :: get ('/', 'HomeController @ index');
Router :: get ('/ custom', CustomController @ custom ') -> query (function ($ query_vars) {

return [          // WP_Query query vars ...];
});
Router :: get (
['post_id', get_option ('page_on_front')], 'HomeController @ index');
Router :: get (function) {
return is_front_page ();
}, 'HomeController @ index');

```

The following is the code of the created WP Emerge controller. To ensure display site pages

```

class HomeController {
    public function index ($ request) {
        $ name = $ request-> get ('name');
        return app_view ('templates / home.php') -> with [
            'welcome' => 'Welcome,!. $ name. !',
        ];
    }
}

```

To specify the route of access to the main page, create a WP Emerge intermediary, as shown in the following listing.



```

Router :: get ('/', 'HomeController @ index') -> add (function ($ request, $ next) {
    // perform action before
    $ response = $ next ($ request);
    // perform action after
    return $ response;
});

```

Layouts have been developed to ensure that content is visible on the siteviewing page.

```

index.php
<? php
get_header (); ?>
<div class = "store-container">
    > div id = "primary" class = "content-area">
        <main id = "main" class = "site-main" role = "main">
            <? php
if (have_posts ()):
    while (have_posts ()); the_post ();
    get_template_part ('template-parts / content', get_post_format ());
        endwhile;
        the_posts_pagination ();
    else:
        get_template_part ('template-parts / content', 'none');
    endif; ?>
        </main> <! - #main ->
    </div> <! - #primary ->
    ? php get_sidebar ('right'); ?>
</div>
?? php get_footer ();

```

### 3.5 Development of additional functionality

The site should have a feature to display the most popular products, i.e., products with the largest number of orders. For its implementation in the Woocommerce plugin used an open short code.

The main command of which is given below;

```
[best_selling_products]
```

This short code must be included in the site's design. Then, on the main page, a block with popular products will appear. Appendix B contains the plugin's source code. Many website owners are concerned about WP's security. Basic The idea is that because WP is an open source CMS, it is vulnerable to the majority of attacks.

In this case, it was decided to develop three-tier authentication for administrative access panels in order to ensure the site's security. Many users are familiar with the standard URL WP admin panel login page. You can access the code and all of the site's functionality from here. That is why they are constantly attempting to break it. The first line of defense is to change the administrative panel's access URL. A standard wp-admin login is required to access the admin panel in WP. To protect against attacks at the entry point to a standard protocol, you must change the login link. If a hacker logs in using the standard protocol, the user will be redirected to a 404 error, indicating that they are not on an existing page.

To implement, you must first add a wp-config.php file to the beginning the following code:

```
define ('WP_ADMIN_DIR', 'vshop');  
define ('ADMIN_COOKIE_PATH', 'SITECOOKIEPATH'. 'WP_ADMIN_DIR');
```

Then you need to add a filter to the end of the wp-includes / functions.php file.

```

add_filter ('site_url', 'wpadmin_filter', 10, 3);
function wpadmin_filter ($ url, $ path, $ orig_scheme) {
    $ old = array ("/ (wp-admin) /");
    $ admin_dir = WP_ADMIN_DIR;
    $ new = array ($ admin_dir);
    return preg_replace ($ old, $ new, $ url, 1);
}

```

To the transformation in the .htaccess file:

```
RewriteEngine On
```

And then insert the following code

```
RewriteRule ^ vshop /(.*) wp-admin / $ 1?% {QUERY_STRING} [L]
```

You also need to block the old wp-admin address in WP for access to the administrative panel. To do this, at the end of the file wp- includes / functions.php add the following filter:

```

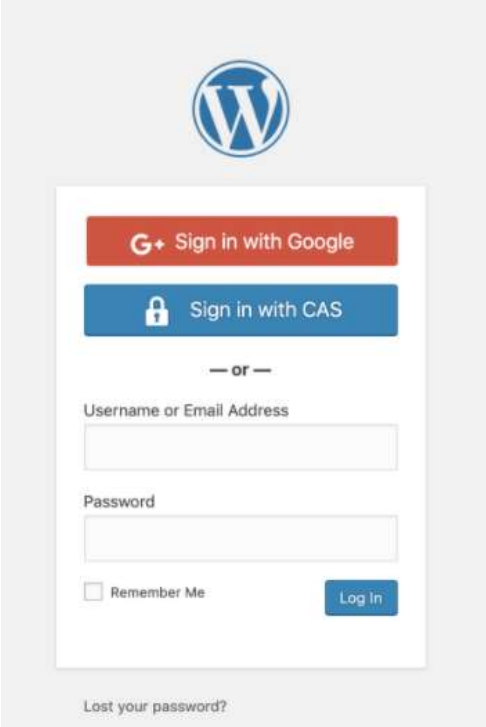
add_action ('init', 'block_wp_admin');
function block_wp_admin () {
    if (strpos ($ _ SERVER ['REQUEST_URI'], 'wp-admin')! = false) {
        wp_redirect (home_url (). '/ 404');
        exit;
    }
}

```

As a result, the standard path was changed to another known only administrators, namely, was changed to vshop.

The second level of security is against automatic password selection. To accomplish this, a custom plugin was created that records the IP address and timestamp of each failed login attempt. If the number of login attempts from the same range of IP addresses in a short period of time exceeds the limit, the login function is disabled for all queries from this range. This aids in preventing password retrieval through searching. At the moment, the plug-in is set to work by default: 1 hour IP lock address after 3 failed login attempts within 5 minutes. It is possible to make changes via the admin panel. Administrators can manually remove blocked IP address ranges from the panel. Appendix B contains a portion of the plugin's code.

The third level of protection is double authorization from Google. Company Google provides developers with a ready-made solution for web security sites and programs. Additional functionality has been added for implementation as well input field in the form of authorization, because the default in WP is given there is no field



The image shows a login form for a WordPress site. At the top center is the WordPress logo. Below the logo are two buttons: a red button with the Google+ icon and the text "Sign in with Google", and a blue button with a lock icon and the text "Sign in with CAS". Below these buttons is the text "— or —". The form contains two input fields: "Username or Email Address" and "Password". Below the password field is a checkbox labeled "Remember Me" and a blue button labeled "Log In". At the bottom left of the form is a link that says "Lost your password?".

Figure 3.6 – Authorization Form

You must also configure the plugin. This is required. To generate a unique QR code and connect Google services, go to settings.

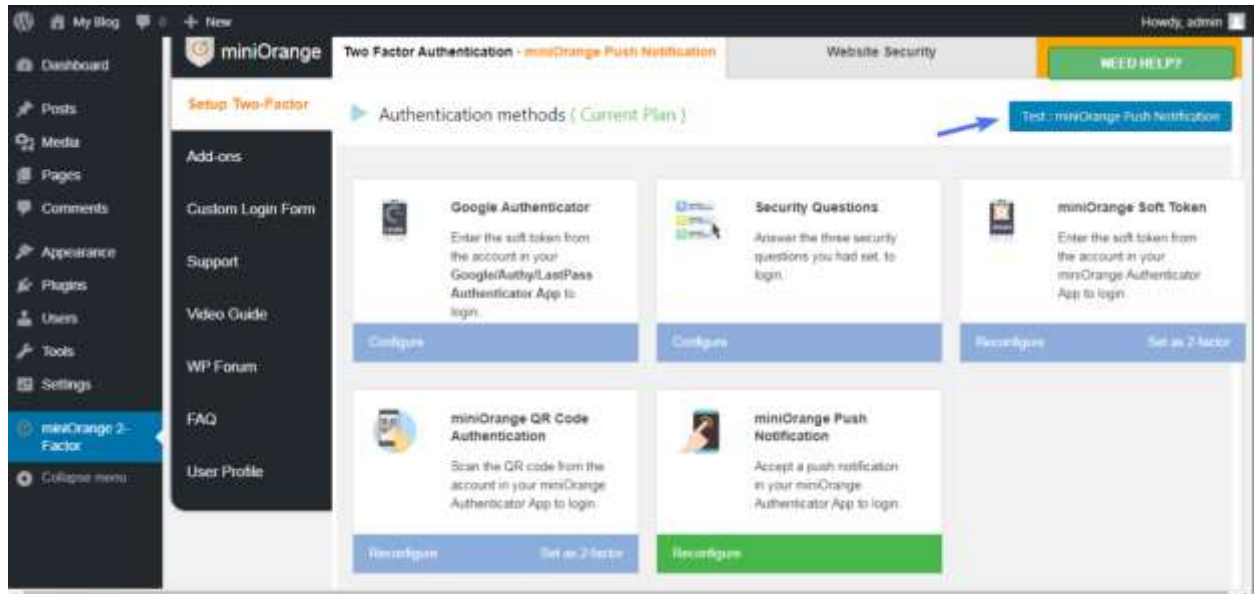


Figure 3.7 - Google Authenticator plugin configuration page

For the login, you must install the Google Authenticator mobile app, which generates a temporary two-step authentication password. In addition to the standard login and password, you must now enter an additional password. Login is prohibited if the password is incorrect.

### 3.6 Using the software application

This dissertation project, or rather a website designed for clothing ordering, is divided into two parts. Specifically, the customer section for viewing information on the site is accessible to all users, while the administrative panel with the ability to add and edit information is only accessible to site administrators.

#### Client part of the site

When you open the site in the browser displays the main page (Fig.3.6), on the header of which there is some contact information, reference to authorization page, cart, search form by product name, or category, and also, the brand name of the site.

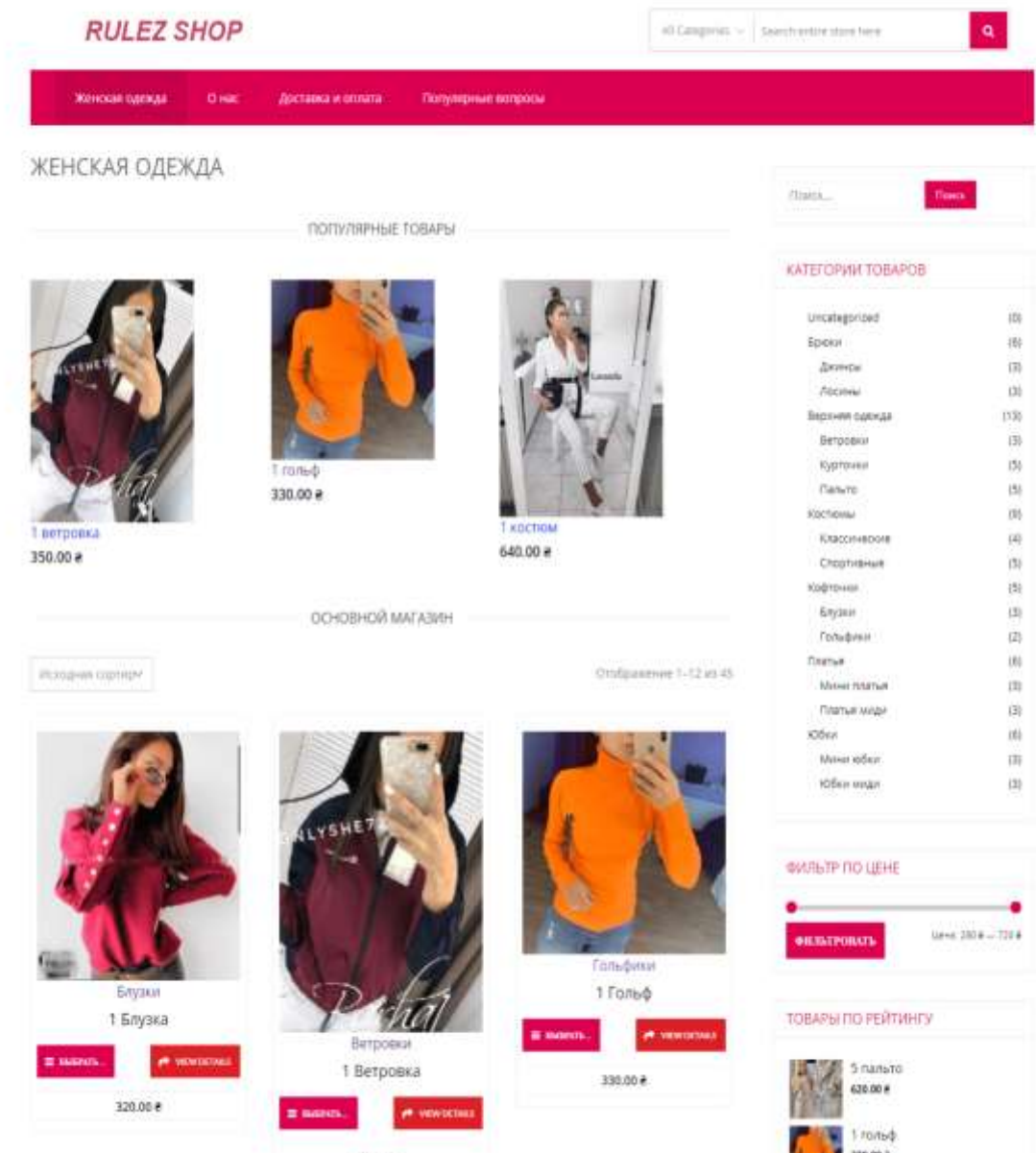


Figure 3.8 - Home page

Below the header is a navigation bar with links to the main pages of the site. The navigation bar on the right includes a search form, product categories, a product price filter, and a block of the most popular products.

When you click on the category name, a page with a catalog of products from that category will open.



Figure 3.9 -Navigation bar

A block with the most popular products is located beneath the site menu. That is the product that has received the most orders.

The image, name, and price of the product are all included on the product cards (Fig. 3.8). By clicking on the appropriate button, anyone can add the product to their cart.

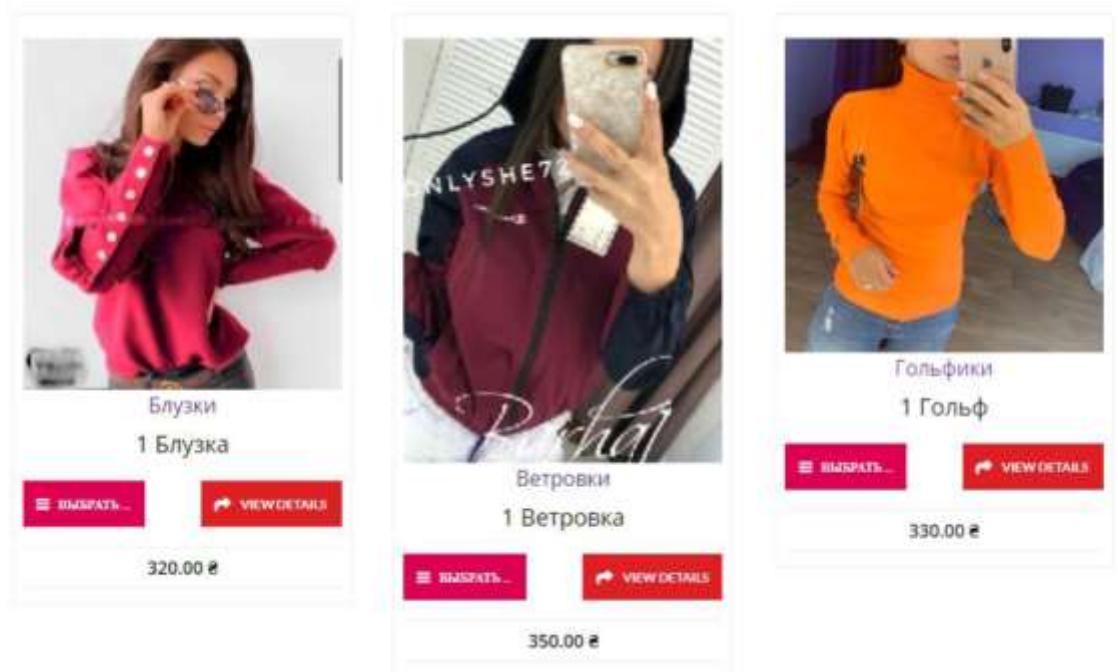


Figure 3.10- Cards with the product

When you click on the product card, you will be taken to a page with more information about the product (Fig. 3.11). On this page, you can select the size and color of your clothing, the quantity of selected goods to order, and add a product review. When you click the "Add to Cart" button, the item with the specified size, color, and quantity will be added to your basket.

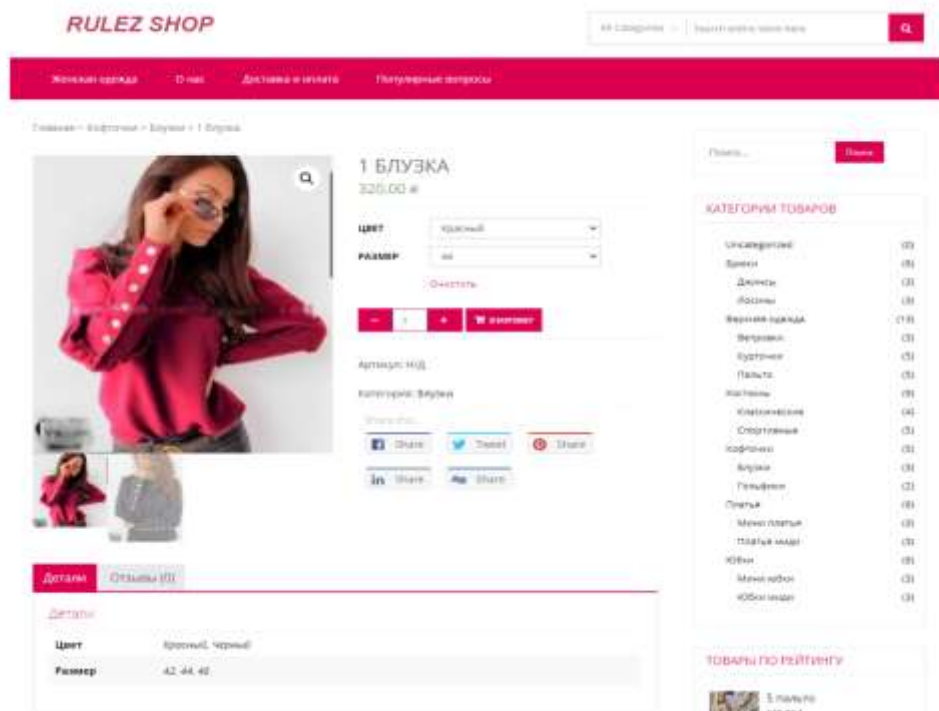




Figure 3.11- Product Page

To access the basket, press the basket-shaped button located next to the authorization button. The cart page contains a list of selected products that can be deleted or changed in quantity. There is also a coupon system on the site. By entering the coupon code in the appropriate price field, the price of the goods will be reduced. A block with the total price order and delivery information appears beneath the list of goods.

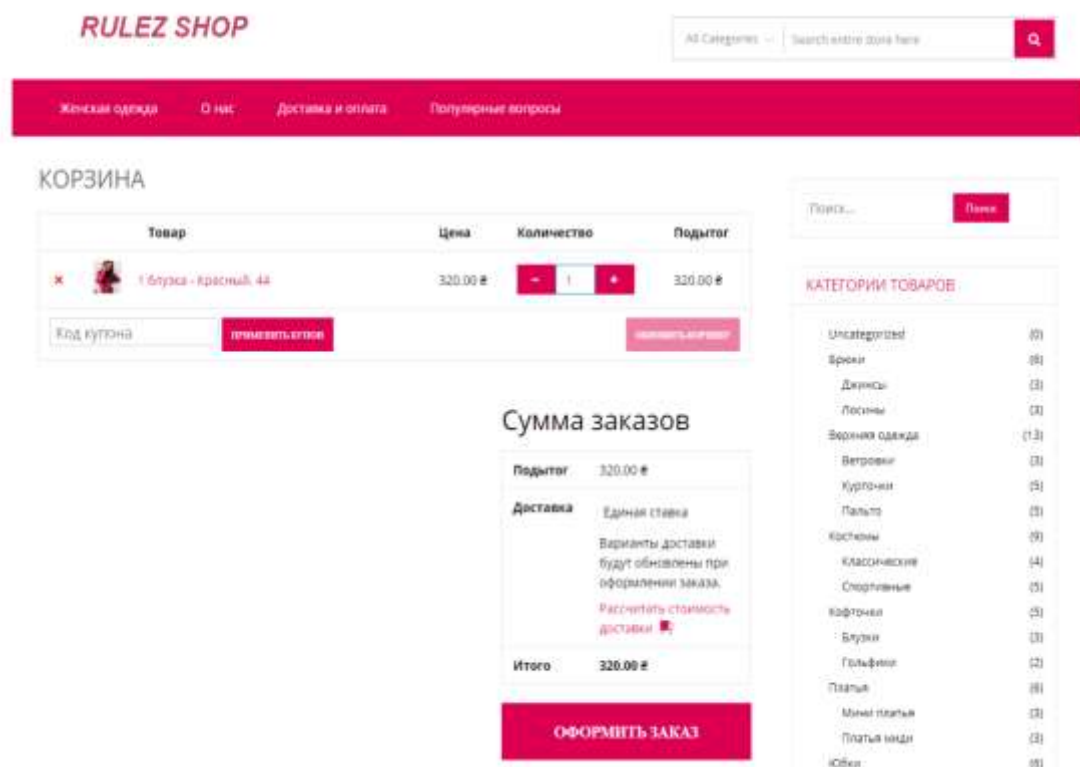


Figure 3.12- Basket page

The ordering page consists of a form where the customer's contact information, payment method, and the ability to add a comment on request can be filled out. There is also the order total and the number of favorites goods. After filling out all of the required fields, click the "Place an order" button, which will display a message about a successful order as well as detailed order information.

**RULEZ SHOP**

Женская одежда | О нас | Доставка и оплата | Популярные вопросы

### Order Confirmed

Спасибо, Ваш заказ был принят.

номер заказа: **622** | дата: **30.05.2020** | всего: **320.00 €** | метод оплаты: **Прямой банковский перевод**

### Order Information

Товар	Итого
1 Блузка - красный, 44 - 1	320.00 €
<b>Подытог:</b>	<b>320.00 €</b>
<b>Доставка:</b>	<b>Единая ставка</b>
<b>Метод оплаты:</b>	<b>Прямой банковский перевод</b>
<b>Всего:</b>	<b>320.00 €</b>

КАТЕГОРИИ ТОВАРОВ

- Uncategorized (0)
- Брюки (0)
- Джинсы (0)
- Лосины (0)
- Верхняя одежда (13)
- Ветровки (0)
- Куртки (0)
- Пальто (0)
- Костюмы (0)
- Классические (0)
- Спортивные (0)

Figure 3.14 - Confirmed order page

The "About Us" page provides a detailed description of the online store as well as its competitive advantages.

**RULEZ SHOP**

Женская одежда | О нас | Доставка и оплата | Популярные вопросы

## О НАС

### Лучший магазин женской одежды – Shop modno

Shop modno — это современный интернет магазин, с помощью которого можно приобрести женскую одежду на любой вкус. Магазин осуществляет продажу в розницу и оптом. Для оптовых покупателей разработана очень выгодная система скидок. После вступления в наш клуб Вы получите все преимущества и возможности приобретения модной и качественной одежды по низким ценам. У нас Вы с легкостью можете подобрать шикарную женскую одежду на любой случай, любой вкус, а главное по низким ценам и не выходя из дома.

### ДЛЯ ПРИОБРЕТЕНИЯ ТОВАРА ДОСТАТОЧНО СДЕЛАТЬ ВСЕГО НЕСКОЛЬКО КЛИКОВ НА САЙТЕ:

- зарегистрироваться
- полюбившийся Вам товар добавить в корзину
- указать адрес доставки
- выбрать способ оплаты

### НАШ МАГАЗИН ВЫБИРАЮТ ПОТОМУ ЧТО:

Мы постоянно следим за тенденциями модной одежды, регулярно пополняем свой ассортимент сезонными новинками. Наш товар удовлетворит вкус самой изысканной модницы. Интернет магазин женской одежды предлагает вашему вниманию только качественные и оригинальные модели платьев, костюмов, кофточек, верней и спортивной одежды и много другое от лучших производителей Украины, Европы, Китая. Соотношение цена и качества каждого изделия — это одно из неоспоримых преимуществ нашего магазина. Товар нашего магазина из качественных материалов в сочетании неординарными, смелыми, дизайнерскими решениями.

КАТЕГОРИИ ТОВАРОВ

- Uncategorized (0)
- Брюки (0)
- Джинсы (0)
- Лосины (0)
- Верхняя одежда (13)
- Ветровки (0)
- Куртки (0)
- Пальто (0)
- Костюмы (0)
- Классические (0)
- Спортивные (0)
- Кофточки (0)
- Блузки (0)
- Тельфунки (0)
- Платья (0)
- Мини платья (0)
- Платья midi (0)
- Юбки (0)

Figure 3.15 – About us

The "Delivery and payment" page contains information about the delivery and payment conditions for the ordered goods.

**RULEZ SHOP**

Женская одежда | О нас | Доставка и оплата | Популярные вопросы

## ДОСТАВКА И ОПЛАТА

### САМЫЕ ВАЖНЫЕ ВОПРОСЫ И ОТВЕТЫ

**Какой срок отправки товара?**

Мы всегда стараемся отправить все товары как можно быстрее. В среднем отправка заказа после оплаты длится от 1 до 4 дней. Обратите внимание что есть товары которые идут «под заказ» в таких случаях отправка будет дольше.

**Какие виды оплаты у Вас есть?**

**Полная оплата товара:**

- От 3 единиц товара при полной оплате **ДОСТАВКА БЕСПЛАТНАЯ**;
- Оплата товара наличными но с предоплатой;
- 100 грн для осен вещей;
- 200 грн для длинных пальтов и верхней одежды (куртки, пальто)

Остальную сумму Вы оплачиваете на почте при получении.

(При заказе наличными платежом доставку **ОПЛАЧИВАЕТ клиент!** + услуги наличного платежа 20грн=2% от суммы)

**Можу я полностью оплатить товар на почте?**

К сожалению нет! Предоплату Вы оплачиваете в качестве страховки, но случай если вы не заберете товар с почты. Ваша предоплата не уйдет нам в карман! Она идет за услуги новой почты. (Доставка в 2 стороны)

**Оплата по Украине:**

Оплата через сервис **LiPay** — оплатить можно дома

Через терминалы «ПриватБанк»

Перевод на карту ПриватБанка

**Способы оплаты:**

Оплата через сервис **LiPay** — Возможность оплаты товаров и услуг через интернет, перевод денег с любой карточки. Приват24 — это быстрый и удобный способ, оплатить ваш товар, не выходя из дома.

Оплата наличными в Терминале Приват Банка Меню — Пополнить карту с наличными или по номеру — Ввод номера получателя карты (далее следует инструкция банкомата)

Оплата наличными в кассе ближайшего, либо удобного для вас отделения Приват Банка. Для этого вам потребуются: реквизиты нашей карты, которые вы получите после оформления заказа.

**Быстрая и бесплатная доставка по Украине:**

Бесплатная доставка от 3 единиц товара. Вы можете воспользоваться услугами «Новой Почты», они доставят Ваш товар в любое отделение своей сети.

Обработка и отправка заказа занимает от 1 до 4 рабочих дней. В отдельных случаях срок обработки и отправки заказов может быть увеличен на один-два рабочих дня.

Указанные сроки могут быть соблюдены в том случае, если при оформлении заказа Вы отметили все данные, необходимые для отправки Вашего заказа.

Для доставки «новой почтой» в Вашем населенном пункте должно быть хотя бы одно отделение этой компании. Более подробную информацию Вы можете получить на официальном сайте компании «Новая Почта»

Поиск... Поиск

### КАТЕГОРИИ ТОВАРОВ

Одежда	(11)
Брюки	(11)
Джинсы	(11)
Юбки	(11)
Верхняя одежда	(11)
Ветровки	(11)
Куртки	(11)
Пальто	(11)
Костюмы	(11)
Кожаные	(11)
Спортивные	(11)
Кафтан	(11)
Вуаши	(11)
Гольфики	(11)
Платья	(11)
Мини-платье	(11)
Платье-мама	(11)
Юбки	(11)
Мини-юбки	(11)
Юбки-мама	(11)

### ТОВАРЫ ПО РЕЙТИНГУ

	5 пальто	620.00 €
	1 голуб	330.00 €
	2 куртки	510.00 €

Поиск по товарам... Поиск

Figure 3.16 – “Delivery and payment” page

In the event that site users had questions, they were given the opportunity to ask site administrators. The page "Popular questions" was created specifically for this purpose.

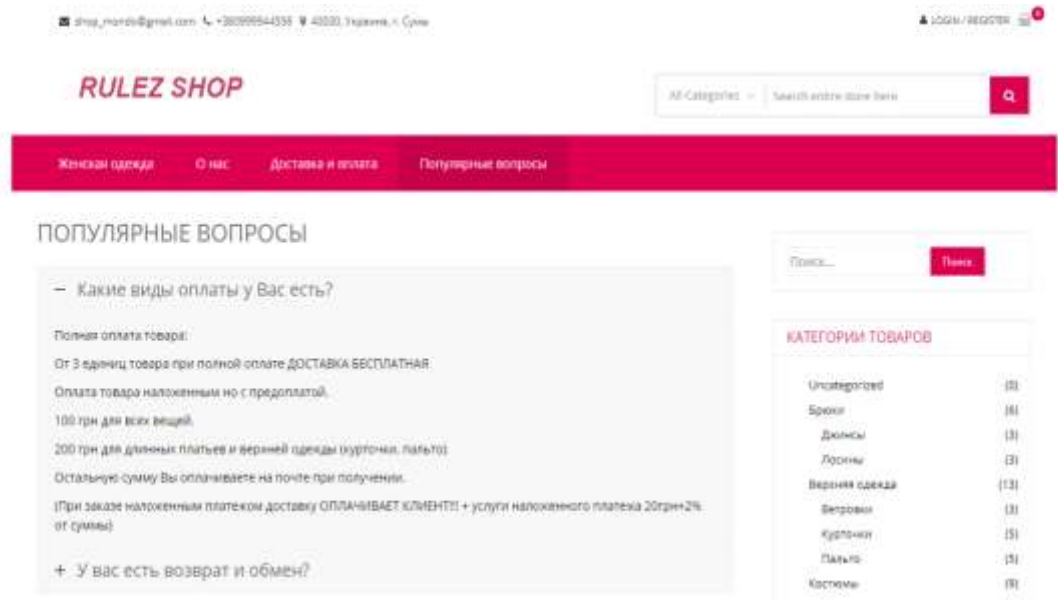


Figure 3.17 – Popular Questions Page

### Administrative Panel

The site has an administrative panel that allows you to manage the site, add goods, and process orders. To access it, you must first log in. Login or email, user password, and special code generated in the Google Authenticator smartphone app are required for authorization. Scanning with this app will generate a special QR code and a temporary code that must be entered into the appropriate field (Fig.3.18).



Figure 3.18- Authorization form in the administrative panel

After logging in as an administrator, the user is taken to the administrative panel's main page. Which widgets have the most recent comments, order statistics, and additional information on the selfCMS? (Fig. 3.19)

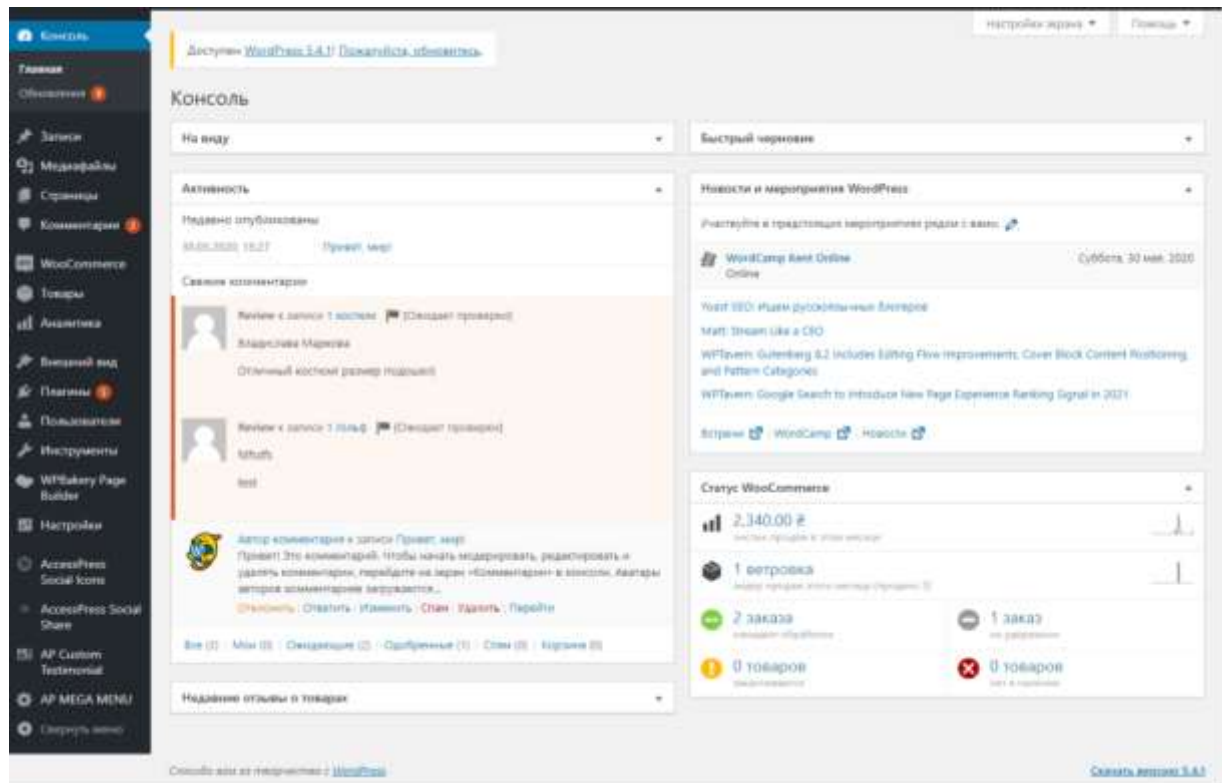


Figure 3.19 – The main page of the administration panel

Before you can add items, you must first add categories. Then you can add products. The structure of categories is hierarchical. Normally, the depth of the categories is unlimited, but this is not the case; limiting the depth of the categories is determined by the system's requirements. There are no special requirements for creating categories; only categories based on the logic and convenience of developers in grouping products exist. It should be noted that there are other methods of grouping, such as articles, but the categories are clearer and smarter to me.

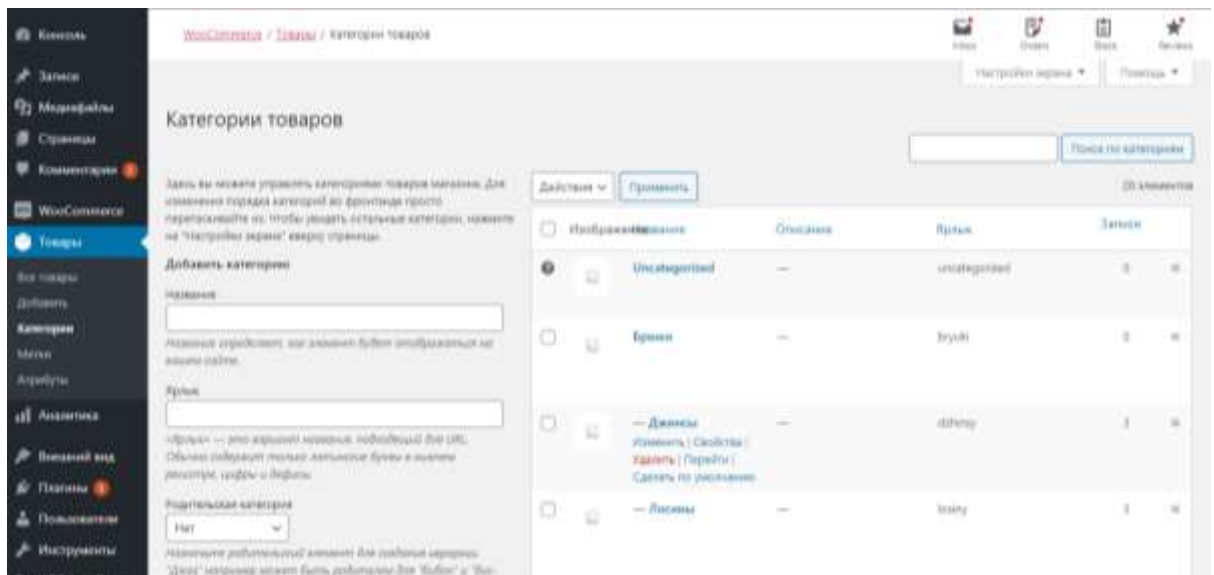


Figure 3.20- Category Page

Adding a new product is done in the same way that adding a new record in WP is done. You can provide a brief and detailed description of the product, upload an image to the gallery, and select the category affiliation. Each product has its own special block - product data - for detailed settings. Write down the price, article, size, and color, as well as any related products and attributes, if applicable.

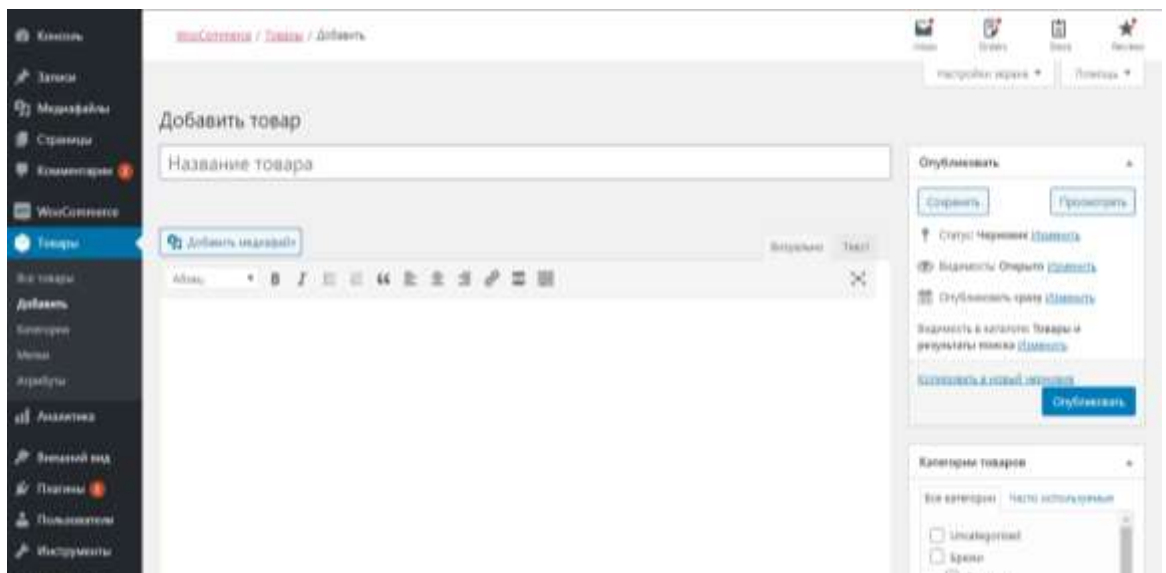


Figure 3.21 – Product delivery page

After adding products, you can view and change them by going to the page "Goods" (Fig. 3.22)

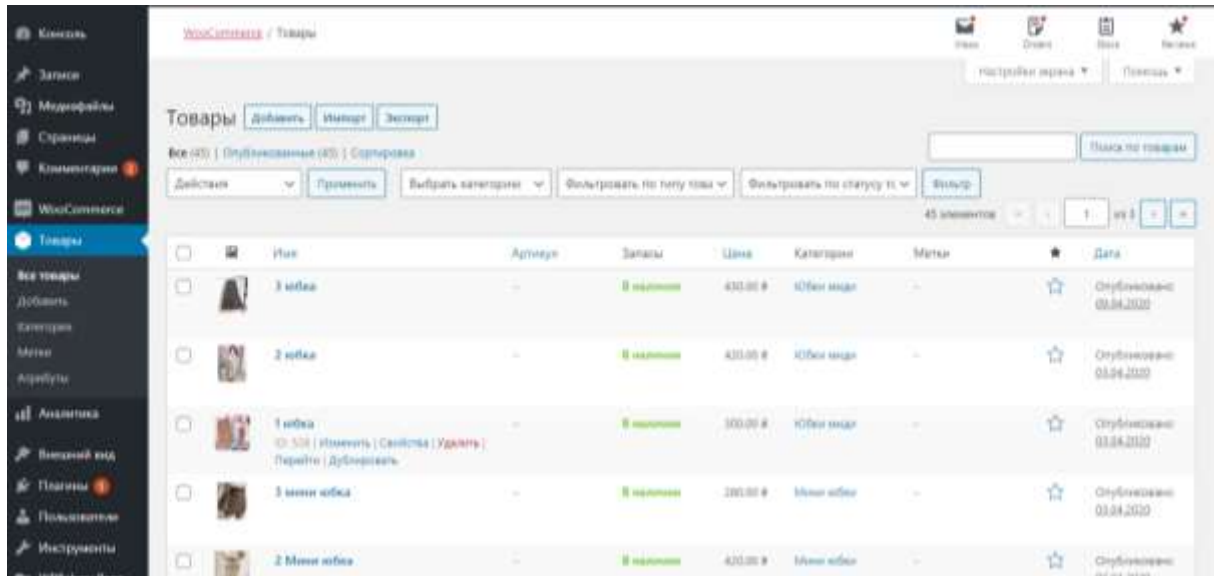


Figure 3.22 – Product Page

The page "Orders" contains a list of orders placed by site visitors for the delivery of goods (Fig. 3.23). Each order can be deleted and the execution status changed as needed.

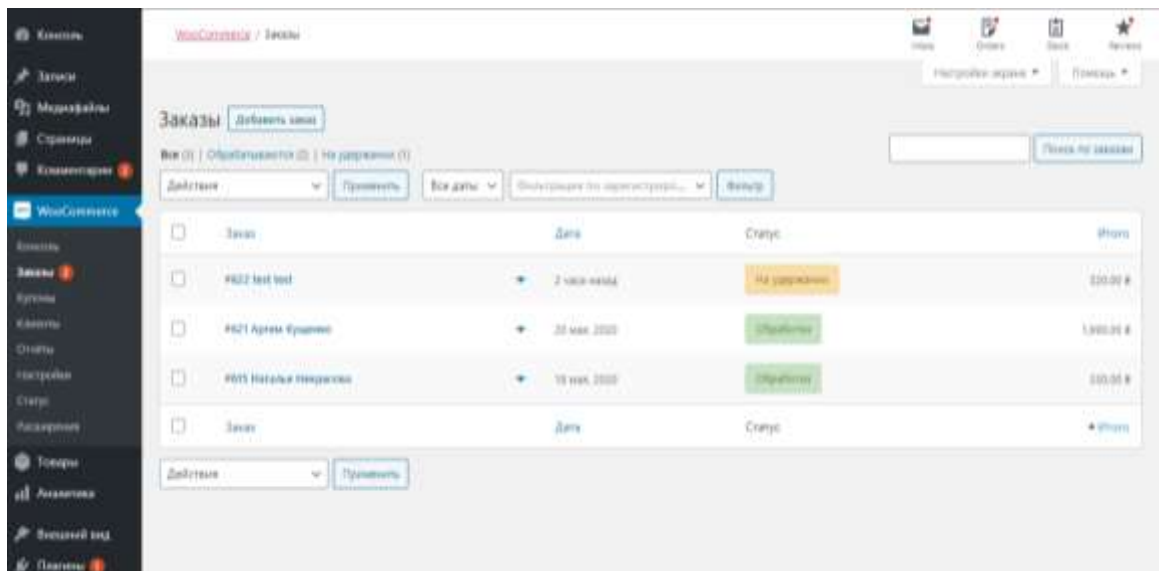


Figure 3.23 – Order page

The site also allows users to leave comments on individual products. To view all comments in the admin panel, go to the "Comments" page, which contains a table with all the reviews, including author information and the name of the product on which the comment was left (Fig.3.24)

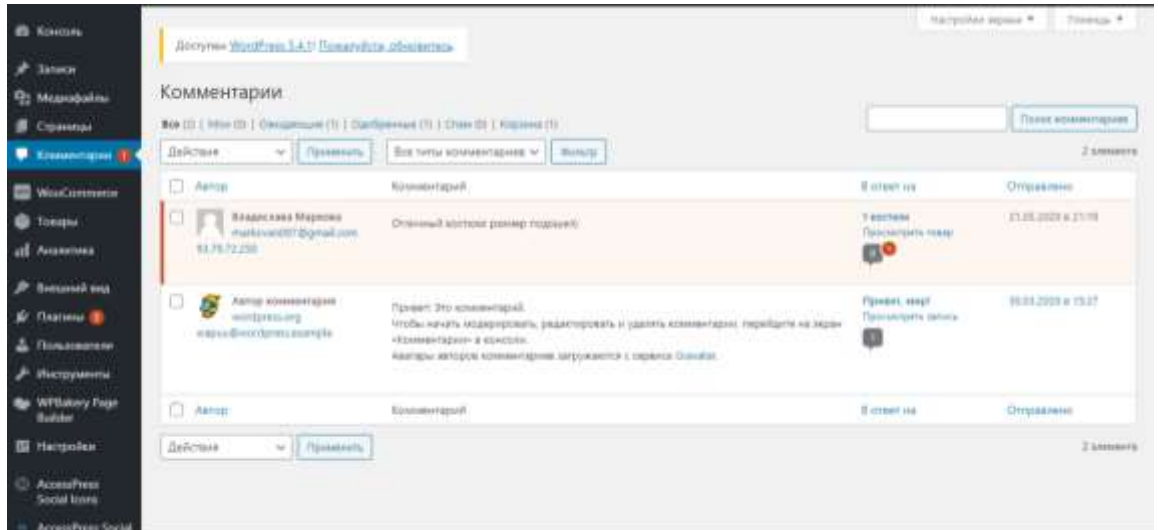


Figure 3.24 – Comments page

On the Analytics page, you can find detailed sales statistics for the products on the site (Fig. 3.25)

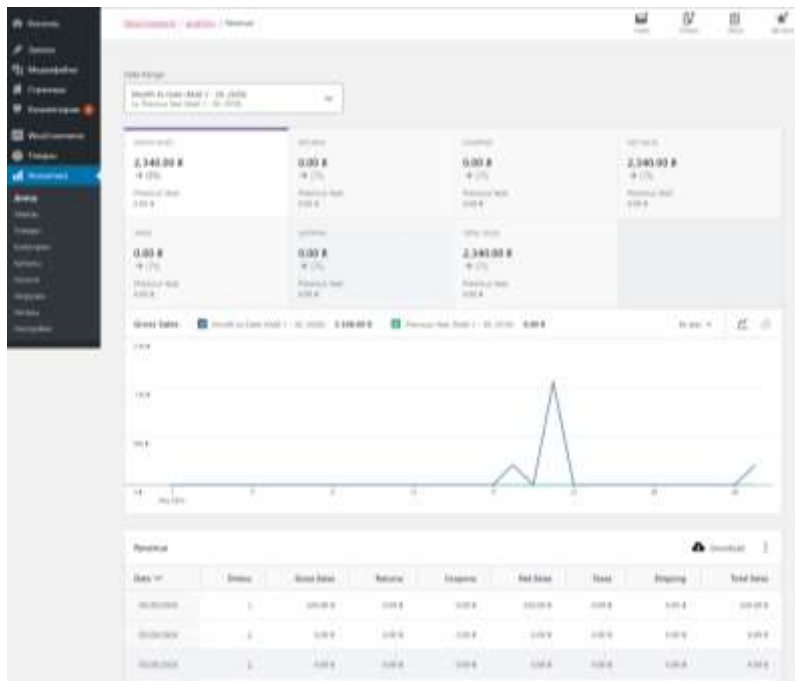


Figure 3.25 – Analytics page



The web application's operation was optimized to improve the site's performance. The use of additional developed plugins increased the site's efficiency and security.

## **4 . OCCUPATIONAL HEALTH AND EMERGENCY SAFETY**

### **4.1 Effects of Computer/Laptop Screen Radiation on Human Beings**

The average time which most of the people giving from the Static fields, when a charge is accumulated or present in the surface of material produces its electric field but when there is a physical movement of the charge it also produces a magnetic field. The external electromagnetic field may force the charge to do motion and when this charge moves it creates some potential difference. And that potential difference is so less (<2000 volts) that the human body

cannot feel. Generally, frequencies of these types of fields are almost 0 HZ. SOURCES- Industrial electrolysis, video displays, MRI and other scientific instrumentation, welding devices, etc. Extremely Low Frequency (ELF)-

Extremely low frequency describes the frequency of less than 300HZ. This type of field is almost useful to humans.

In this range, electric power is also supplying throughout the world (50 Hz-60Hz)

In a cross-sectional case control study directed to contemplate hereditary harm in people living in region of portable base stations, it was discovered that power thickness in the region inside 300 m from the base station surpassed as far as possible and was altogether higher contrasted with the region from where control tests were gathered. Hereditary harm parameters of DNA movement length, harm recurrence (DF) and harm file were fundamentally raised in the example bunch contrasted with particular qualities in sound controls. Normal and longhaul utilization of microwave gadgets (cell phone, microwave) at residential level can have negative effect upon natural framework particularly on mind.

Health Effects- The positive part of technologic advancement makes the existence simpler, it might likewise include segments that disable the personal satisfaction using its specific adverse impacts. Electromagnetic waves can be created by numerous methods by humans also. Coming about because of the mechanical

developments, the utilization of electromagnetic fields step by step increments, and in this way, individuals are presented to these EM waves at higher extent. Especially, drastically expanding the cell phone client's numbers raises critical worries because of its latent capacity harm on individuals uncovered by RF waves. The general feeling is that there is no immediate proof of risky consequences for humans when brought near to low radiofrequency waves. A few examinations uncovered that various element of EM fields did not demonstrate the deoxyribonucleic acid harm on various cells

## **4.2 What I can Do to help my self**

### **Getting comfortable**

- Adjust your chair and VDU to find the most comfortable position for your work. As a broad guide, your forearms should be approximately horizontal and your eyes the same height as the top of the VDU;
- Make sure you have enough desk space for documents and other equipment;
- Try different arrangements of keyboard, screen, mouse and documents to find the best arrangement for you. A document holder may help you avoid awkward neck and eye movements;
- Arrange your desk and VDU to avoid glare, or bright reflections on screen. This will be easiest if neither you nor the screen is directly facing windows or bright lights. Adjust curtains and blinds to prevent unwanted light;
- Make sure there is space under your desk to move your legs freely. Move any obstacles such as boxes or equipment;
- Avoid excess pressure from the edge of your seat on the backs of your legs and knees.

### **Keying in**

- Adjust your keyboard to get a good keying position. A space in front of the keyboard is sometimes helpful for resting the hands and wrists when not keying;
- Try to keep your wrists straight when keying. Keep a soft touch on the keys and don't overstretch you fingers. Good keyboard technique is important.

### **Using a mouse**

- Position the mouse within easy reach, so it can be used with the wrist straight. Sit upright and close to the desk, so you don't have to work with your mouse arm stretched. Move the keyboard out of the way if it is not being used;
- Support your forearm on the desk, and don't grip the mouse too tightly; Rest your fingers lightly on the buttons and do not press them hard.

### **Reading the screen**

- Adjust the brightness and contrast controls on the screen to suit the lighting conditions in the room;
  - Make sure the screen surface is clean;
  - In setting up software, choose options giving text that is large enough to read easily on your screen, when you are sitting in a normal, comfortable working position. Select colours that are easy on the eye (avoid red text on a blue background, or vice-versa);
  - Individual characters on the screen should be sharply focused and should not flicker or move. If they do, the VDU may need servicing or adjustment.

### **Posture and breaks**

- Do not sit in the same position for long periods. Make sure you change your posture as often as practicable. Some movement is desirable, but avoid repeated stretching to reach things you need;
- Frequent short breaks are better than fewer long ones.

### 4.3 Conclusions

Fortunately, regulations, better development techniques, and cautious usage of computers have prevented many accidents from occurring in recent years. There are still difficulties in this field. Consumers desire systems that are safe and easy to use; and developers want systems that are easier to design, create, and repair. It can be difficult to find a happy medium, and the produced systems often are poorly matched to the user's needs. In many situations the systems being used are complicated and difficult to use for anyone who does not understand how the technology works. The people who depend on these systems to work correctly have many other things to worry about, and a complex machine can add more strife to these situations. Today, many work to create more effective and efficient safety-critical systems. Not only are lives depending on doctors and pilots, they are depending on engineers and programmers as well.

It is concluded that people should keep away the monitor screen of TV, Computer and laptop during working on it. If working on computer screen become more, the radiation of the screen may penetrate inside the body and may affect the natural functioning of tissues and cells. The abnormal functioning of cells may responsible for many types of diseases. It is a natural process that when the cells become die, the new cells are generated. But due to the exposure of radiation of screen, the new cells are generated without die of old cell. It may be responsible for generation of tumour in the body. Similar types of abnormal activities are

possible inside the body due to long exposure of radiation of computer/laptop screen.

## CONCLUSIONS

The main task of the project is to complete all of the project's goals and objectives, namely the creation of an online clothing store. At the moment, the project allows you to sell clothes online.

An examination of the subject matter was carried out while carrying out this work. The work's relevance is determined using literature sources. Analogues were analyzed to determine the disadvantages and advantages of competitors. The subject is investigated during the course of work.

Optimized the website's interface and navigation to make it more user-friendly. navigate through cyberspace.

The technical task for the diploma work that describes the purpose of the site, the purpose of creation, and the target audience using. Prepared documentation for work planning.

The project is built with the PHP programming language and the WP content management system. This work will allow everyone to order clothes without leaving their homes.

Furthermore, by utilizing additional plugins, the system is made more secure. As a result, the project will provide full functionality for the sale of clothing via an internet network. Based on all of the information and knowledge, a web application was created to assist the work of a clothing store. All of the goals and objectives were met and completed.

## REFERENCES

- 1 Internet trade [Electronic resource] - Mode of access to resource:  
<https://retail-loyalty.org/knowledgebase/glossary/internet-torgovlya/>.  
 (application date: 20.04.2020).
- 2 Prospects for the development of Internet trade [Electronic resource] -  
 Resource access mode: <https://www.fundamental-research.ru/ru/article/view?id=36472>. (application date: 21.04.2020).
- 3 How To Become A Web Developer - Everything You Need To Know  
 [Electronic resource] - Resource access mode:  
<https://careerfoundry.com/en/blog/web-development/what-does-it-take-to-become-a-web-developer-everything-you-need-to-know-before-getting-started/>. (date: 22.04.2020).
- 4 4. The best programming languages of 2020 that are worth learning  
 [Electronic resource] - Resource access mode:  
<https://merehead.com/ru/blog/popular-programming-languages-2020/>.  
 (date: 22.04.2020).
- 6 Crackford Douglas. JavaScript. Strengths, 2016. - 176 p.
- 7 Haverbeke Marein. Expressive JavaScript. 2nd edition, 2015. - 745 p.
- 8 What is CSS [Electronic resource] - Mode of access to the resource:  
<http://phpist.com.ua/css/5-whatcss/>. (application date: 22.04.2020).
- 9 What is PHP? [Electronic resource] - Resource access mode:  
<https://www.php.net/manual/en/intro-what-is.php>. (application date: 22.04.2020).
- 10 The best CMS platform to launch a website in 2020 [Electronic resource] -  
 Resource access mode:  
<https://www.hostinger.com.ua/rukovodstva/luchshie-cms-platformy-2019/>. (date: 23.04.2020).



- 11 What is a CMS? [Electronic resource] - Resource access mode: <https://wiki.rookee.ru/cms/>. (application date: 22.04.2020).
- 12 The 2020 Roadmap To Fullstack Web Development [Electronic resource] - Resource access mode: <https://codingthesmartway.com/the-2020-roadmap-to-fullstack-web-development/>. (application date: 24.04.2020).
- 13 Nixon R. Create dynamic websites using PHP, MySQL, JavaScript, CSS and HTML5, 2016. - 510 p.
- 14 What is WP? [Electronic resource] - Mode of access to resource: <https://www.seonews.ru/glossary/WP>. (date of application: 24.04.2020).
- 15 Daryl Bartlett. WP for beginners, 2017. - 320p.
- 16 Tris Hassi. WP for professionals, 2014 - 330p.
- 17 B. Williams, D. Demstra, H. Stern. WP for professionals. Website development and design, 2015 - 412p.
- 18 Site management system CMS Joomla [Electronic resource] - Resource access mode: <https://www.cyberprog.ru/xarakteristiki-joomla.html>. (application date: 26.04.2020).
- 19 C-Bitrix [Electronic resource] - Resource access mode: <https://cmsmagazine.ru/instrument/bitrix/>. (application date: 27.04.2020).
- 20 Alexey S. Creating sites based on WP. Educational manual 2017. 128p.
- 21 UML [Electronic resource] charts - Resource access mode: <https://planerka.info/item/diagrammy-kommunikacij-uml/>. (date of application: 01.05.2020).
- 22 Theory and practice of UML [Electronic resource] - Access mode to the resource: [http://www.it-gost.ru/articles/view\\_articles/94](http://www.it-gost.ru/articles/view_articles/94). (date of application: 02.05.2020).

- 23 Senetskaya KP Web-application to support the work of a clothing store / Senetska Kateryna Petrovna // IMA-2020 / Senetska Kateryna Petrovna. - Sumy, 2020. - (Sumy State University).

# APPENDIX

```
<?php
?><!DOCTYPE html>
<html <?php language_attributes(); ?> <?php storevilla_html_tag_schema(); ?> >
<head>
<meta charset="<?php bloginfo( 'charset' ); ?>">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="profile" href="http://gmpg.org/xfn/11">
<link rel="pingback" href="<?php bloginfo( 'pingback_url' ); ?>">

<?php wp_head(); ?>
</head>

<body <?php body_class(); ?>>

<?php if ( function_exists( 'wp_body_open' ) ) {
```

```

    wp_body_open();
} ?>

```

```

<div id="page" class="hfeed site">

```

```

<?php do_action( 'storevilla_before_header' ); ?>

```

```

<header id="masthead" class="site-header" <?php if ( get_header_image() != "" ) {
echo 'style="background-image: url(' . esc_url( get_header_image() ) . '); background-
size:cover;"; } ?>>

```

```

<?php

```

```

/**

```

```

* @see storevilla_skip_links() - 0

```

```

* @see storevilla_top_header() - 10

```

```

** @see storevilla_top_nav (filter for top header
navigation)

```

```

* @see storevilla_button_header() - 20

```

```

* @see storevilla_primary_navigation() - 30

```

```

*/

```

```

do_action( 'storevilla_header' );

```

```

?>

```

```

</header><!-- #masthead -->

```

```

<?php do_action( 'storevilla_after_header' ); ?>

```

```

<div id="content" class="site-content">

```

```

<?php if( !( is_home() || is_front_page() ) ) { ?>

```

```
<div class="store-container clearfix">
<div class="store-container-inner clearfix">
<?php }
```

## 2. Code to search the site.

```
<article id="post-<?php the_ID(); ?>" <?php post_class('storevilla-blog'); ?>>
```

```
<?php
if( has_post_thumbnail() ){
$image = get_the_post_thumbnail_url( get_the_ID(), 'storevilla-blog-
image');
?>
<figure>
"
<div class="sv-img-hover">
<div class="holder">
</div>
</div>
</figure>
<?php } ?>
```

```
<div class="sv-post-content">
```

```
<div class="post-meta category-name">
```

```
<span><?php the_category( ' ' ); ?></span>
</div>
```

```

<h3><a href="<?php the_permalink(); ?>"><?php the_title(); ?></a></h3>
<div class="post-meta">
<span class="date"><?php the_date(); ?></span>
</div>

```

```

<div class="description"><?php the_excerpt(); ?></div>
<a href="<?php the_permalink(); ?>" class="sv-btn-countinuereading"><?php
esc_html_e('continue reading','storevilla'); ?></a>

```

```

<div class="sv-post-foot">
<?php the_tags(""); ?>
<div class="post-meta pull-right">
<span class="sv-post-author">
<?php esc_html_e('Post By :','storevilla'); ?>
<a href="<?php echo esc_url( get_author_posts_url(
get_the_author_meta( 'ID' ) ) ); ?>">
<?php the_author(); ?>
</a>
</span>
</div>
</div>
</div>

```

```

</article><!-- #post-## -->

```

3. Code to display product information.

```

<?php get_header(); ?>
<div id="primary" class="content-area">
<main id="main" class="site-main" role="main">
<?php
while ( have_posts() ) : the_post();

get_template_part( 'template-parts/content', 'page' );

// If comments are open or we have at least one comment,
load up the comment template.
if ( comments_open() || get_comments_number() ) :
comments_template();
endif;
endwhile; // End of the loop.
?>
</main><!-- #main -->
</div><!-- #primary -->
<?php get_sidebar();
get_footer();

```

#### 4. Code to display the most popular products.

```

<?php
if ( ! defined( 'ABSPATH' ) ) {
exit;
}
if ( !function_exists('get_plugin_data') ){
require_once( ABSPATH . 'wp-admin/includes/plugin.php' );
}
if ( !function_exists( 'woobsp_version' ) ) {

```

```
function woobsp_version() {
    $woobsp_plugin_data = get_plugin_data( __FILE__ );
    $woobsp_plugin_version = $woobsp_plugin_data['Version'];
    return $woobsp_plugin_version;
}

if ( !function_exists( 'woobsp_widget_scripts' ) ) {
    function woobsp_widget_scripts() {
        wp_register_style( 'woobsp_widget_css', plugins_url( '/assets/woobsp-styles.css',
__FILE__ ), false, woobsp_version(), 'all' );

        wp_enqueue_style( 'woobsp_widget_css' );
    }
    add_action( 'wp_enqueue_scripts', 'woobsp_widget_scripts' );
}

//widget
require_once('widget/woobsp-widget.php');

//shortcode
require_once('widget/woobsp-shortcode.php');
?>
```