MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
TERNOPIL IVAN PULUJ NATIONAL TECHNICAL UNIVERSITY
FOREIGN STUDENTS DEPARTMENT
COMPUTER SCIENCE DEPARTMENT

AJAKPA KINGSLEY OFUNAMI

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INFORMATION SYSTEM FOR LOCATION DATA AND ANALYSIS

122 «Computer science and information technology »

Abstract of a Master's Thesis

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The thesis has been carried out at the Computer Science Department of Ternopil Ivan Puluj National Technical University, Ministry of Education and Science of Ukraine

Supervisor: Ph.D., Lecturer of Computer Science Department
Nazarevych O.B,
Ternopil Ivan Puluj National Technical University

Reviewer: Ph.D., Associate Professor of Automation of Technological Processes and Enterprises Department
Ihor Konovalenko,
Ternopil Ivan Puluj National Technical University

Defence of a thesis will be held at the Meeting of the State Examination Board №32 on February 24, 2018 at $10^{.00}$ in Ternopil Ivan Puluj National Technical University (46001, Ternopil, Ruska st. 56, building №1, room 702)

GENERAL CHARACTERISTIC OF THE THESIS

Actuality of the thesis. The Android System Architecture Framework demonstrates how the different components of the Android system interact with one another. There are four different layers to the Android architecture: the Applications, Application Framework, Libraries, and Linux Kernel Each section relies on another to carry out an operation on the Android device. Android applications, shown in the first layer, are written in Java and run within a Dalvik virtual machine on the mobile device. The application frameworks are skeletons for Android developers to utilize. Through these frameworks, a developer

The aim of the thesis: The main goal of Droid Spotter is to allow forensic scientists the ability to narrow down the number of possible locations of location data from unanalyzed applications on an image of an Android partition copied from its original hard drive

Thesis tasks:

1. To Enrich a Mobile Telephone call
2. To Designing a Proof-of-Concept Prototype Application
3. To implement the driod spotter of android data location

The object of the research: Creating sample location data.

Novelty of the results: Google has made the Android source code publically available for developers to use and modify for their own purposes.

The practical significance: The main point of this research was to create DroidSpotter and have it be able to successfully identify new data for forensic investigators.

Thesis approbation. The results have been reported at the V International scientific and technical conference of young researchers and students «Current issues in modern technologies», Ternopil, November 16-17, 2017.

The structure of the thesis. The thesis consists of explanatory notes and graphical presentation. The explanatory notes consists of introduction, 7 sections, conclusions,

references, and appendices. The thesis size: explanatory notes – 111 pages of the A4 format, graphical presentation – 7 sheets of the A1 format.

MAIN CONTENT OF THE THESIS

In introduction the importance and actuality of the subject of the thesis have been represented.

In the first section analytical review of research method has been carried out. The fundamental data of location data system and analysis has been proved to be a topic of research and imlementation

In the second section the main characteristics of the have been considered, because the software has been used to to carry out the actual aim of the thesis and tested to be working

In the third section estimation of costs involved in designing the architectural structure of information system Location data and analysis has been calculated and implemented

Forth section is devoted to the problems of health and safety regulations. That is, the problems of electrical safety in the laboratory, static electricity and spark hazards etc. are considered.

Fifth section deals with ecological examination law of Ukraine, environmental protection and ecological development.

Conclusions

1 Enriching a mobile phone call cooperative mobile web applications can be implemented on a mobile device to enrich the communication of a phone call

2 Designing a Proof-of-Concept Prototype Application The cooperative web applications be bundled with the circuit switched telephone call of a mobile device

3 Implement the droid spotter of Andriod location Data the requirements on the terminal and on the network in order for the collaborative applications to work smoothly

LIST OF PAPERS PUBLISHED BY THE AUTHOR OF THESIS

1. Ajakpa Kingsley Ofunami. Information system for location Data and analysis / Book of abstract of the V International scientific and technical conference of young researchers and students «Current issues in modern technologies», Ternopil, November 16-17, 2017, vol.2. – Ternopil, TNTU Press. – 120 p.

ANNOTATION

Master's thesis is devoted to the development of information system for location data and analysis. In the thesis presented a structure of this information system, that includes different blocks, main of them: structure of location and information data analysis and also description of the main program and explanation of uses and also it shows the importance of using forensic tools to improve location services for andriod devices which help to make an accurate description of the main subject of the thesis

Keywords: Andriod, Location Data, Forensic tools , Collection And Analysis, Online project Management, Andriod app developement