KENYATTA UNIVERSITY

SCHOOL: ENGINEERING AND TECHNOLOGY.

DEPARTMENT: COMMUNICATION AND INFORMATION TECHNOLOGY

BACHELOR OF COMPUTER SCIENCE

INDUSTRIAL ATTACHMENT

AT

ROBISEARCH LIMITED

PERIOD: 3RD May 2019 to 31ST July 2019.

THIS REPORT HAS BEEN COMPILED BY:

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**ACKNOWLEDGEMENT**

My attachment at Robisearch Limited was a success and I will remain grateful to them for all the things I have learnt from the company and from the people I had the opportunity to work with.

My most sincere gratitude to Mr. Robert Manyala who is the director to the company and who decided to take the risk by investing his time and money on me, at the company he was my role model and I looked and learnt a lot from his leadership skills and how he ensured the day to day running of the company.

A big thank you to Mr. Reagan Otieno who was my supervisor and who also invested in me to endure that the company ran smooth. Mr. Reagan was a daily inspiration with the way he was always willing to teach whenever we were stuck writing code. I learnt a lot from him and certainly my coding skills have improved in comparison to before I joined the company.

Thank you to my fellow attaches with whom we challenged each other and learnt how to do things in a new way on a daily basis.

Above all thanks be to God for seeing me through the entire experience.

**DEDICATION**

I dedicate this attachment to my parents Paul and Julia Wafukho who have been with me all the way through this journey. It has been tough and educating, I have gained a lot and I am a better programmer now, or so I believe.

**EXECUTIVE SUMMARY.**

This report is a confirmation that I have undertaken Industrial Attachment at Robisearch Limited which is a software company Located in Juja as a fulfillment of my SCO 312 (Industrial Attachment) Unit.

During this period, I was required to acquire more expertise in my field of study which I did. During my stay at the company I have been part of a bigger team that has been actively developing web applications for various clients all over the country.

I have seen the impact of technology on businesses and how we as the System developers play a bigger role in making sure that the world keeps running and everyone is satisfied from a business perspective.

**ABBREVIATIONS**

Mr. Mister

RS. Robisearch

LTD. Limited

IT. Information Technology

Dept. Department

POS. Point of Sale System

PR. Public Relations

PMS Property Management System

Dept. Department

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**CHAPTER ONE: INTRODUCTION**

* 1. **GEOGRAPHICAL LOCATION.**

Robisearch Limited is an IT company located in Juja, in the Juja Professional Building 4th Floor Opposite Barclays Bank.

* 1. **COMPANY BACKGROUND**

Robisearch Limited is a company founded on the 14th April 2015 by the Director Mr. Robert Manyala who was a student at the Jomo Kenyatta University of Agriculture and Technology. The company first started as a company that developed Property Management Systems, with a small office of three employees.

The company grew slowly and progressively from three to seven employees the following year, and at around this rime the company started developing the point of sales system which would change the company for good.

The breakthrough came in the year 2017 when the company realized that the Point of Sale System was in high demand and focused solely on making the point of sale system better than the previous release for businesses and also started including the Biometrics time attendance systems for schools and businesses too

Now the company has grown and has more than 20 employees and is still growing, the company also has diversified some more in what they offer now including the Developing of Websites for clients and hosting them.

**1.3 MISSION, VISION AND CORE VALUES OF ROBISEARCH LTD**

**1.3.1 MISSION**

To transform the world through innovation

**1.3.2. VISION**

Robisearch Ltd aims at helping businesses maximize their potential through the use of our different software. We strive to offer business solutions both at an individual and group level.

**1.3.3. CORE VALUES**

Innovation, Integrity, hard work, commitment, honesty, equality, justice, fairness, love.

**1.4 ORGANIZATIONAL STRUCTURE**

DIRECTOR

OPERATIONS MANAGER

FINANCE DEPARTMENT

RESEARCH AND DEVELOP MENT

INFORMATION TECHNOLOGY

SALES AND MARKETING

TECHNICIANS

DIGITAL MARKETING

POINT OF SALE

ASSET TRACKING AND INVENTORY SYSTEM

WEB DESIGN

PHYSICAL MARKETING

BIOMETRIC AND BULK SMS

SCHOOL MANAGEMENT SYSTEM

**1.5 DEPARTMENT DETAILS**

The Information Technology Department was where I was posted, this department was headed by Mr. Reagan who oversaw all systems after we developed them and assigned new systems to those free at the time

In this department, we had IT specialists that went to the field a lot and those that stayed back and did the online supports, designing and developing new software

In this department too, every IT member had some days when they went to the field and days when they stayed back inside to focus on systems development. We had targets too that we were supposed to meet in order to get paid at the end of the month.

**1.6 FUCTIONS OF THE IT DEPARTMENT**

* Provision of software to clients i.e. POS, Bulk SMS
* Provision of hardware to clients ie Biometrics Gadgets
* Development of web based application and websites for clients
* Client support
* Installation of routers and networking gadgets
* Training of fellow employees of the company system
* Improving the current POS that rhe company sells
* Maintaining the company server

**1.7 ACHIEVEMENTS OF THE IT DEPARTMENT**

* Improved student accountability by installation of biometric gadgets in schools
* Design and development of websites for schools and businesses iin general
* Comprehensive training of employees on the company system
* Development of ERP software
* Maintenance of hardware both for the company ad clients
* Numerous installation of the POS system to several businesses.
* Numerous client supports to ensure consumer satisfaction.

**1.8 OBJECTIVES OF THE ATTACHMENT**

* Advance skills as a software developer
* Get in touch with the real world
* Meet people in the software development world
* Develop business ethics
* To instill good qualities of responsibility, integrity and self-confidence

**CHAPTER TWO: ATTACHMENT EXPERIENCE**

**2.1 DUTIES PERFOMED DURING THE ATTACHMENT PERIOD**

* Installation and configuration of the point of sales system to clients
* Designing and developing web applications and websites for upcoming and already existing businesses.
* System testing.
* Installation of CCTV cameras to businesses, homes and schools.
* Installation of Biometrics Time attendance System to Businesses and mostly schools.
* Fixing computer hardware problems and diagnosis
* Networking.
* Client support
* Training of new attaches in the company on the POS and Biometrics Systems

**2.2 APPLIED KNOWLEDGE AND SKILLS**

During my training at Robisearch Ltd. I had to apply knowledge and skills that I had learnt from school in order to perform some of the tasks that had been assigned to me to completion.

* Graphical User Interface design. At the company clients came and wanted software to be developed based on their specifications, this required a lot of creativity and keenly listening and noting down what the client wanted for their system
* Knowledge on how computers work. This knowledge is crtial because sometimes clients called and reported their computers having problems and as part of the IT we had to help them on the go.
* Critical thinking was required because clients always called with different problems that required different solutions to them all the time. One had to be a critical thinking in order to understand the problem keenly and provide a helpful and permanent solution
* Patience. Some of the clients that bought the systems did not have a basic understanding of how a computer works and it took longer when training them, so this required patience since frustration was easy.
* Hard work. Installations of systems such as the biometrics had a lot of work when it came to taking all the thumbprints of students in a school for instance. It required hard work to do all this to satisfaction and with the minimum time possible.

**2.3 ACQUIRED KNOWLEDGE AND SKILLS**

* Team work. During all the phases of developing systems we had to work together and try different ways of implementing consumer specifications to come up with systems that satisfied their needs completely with the least amount of errors possible. The most experienced employees did not make us feel inexperienced instead they were open to show us how things should be done and corrected us whenever we ade mistakes.
* I gained more knowledge on how computer hardware work and how to know what the problem is based on computer behavior. Like when a compute beeps constantly and does not boot, it could be a problem to do with the RAM.
* I gained more knowledge on MySQL database Management since we used this database management system when we developed our systems. I learnt how to write SQL commands to manipulate certain data within the dabases that we had

I also had a training on SQL injections and were training some of] the websites to see whether the security is tough.

* I learnt how to use Laravel framework for my PHP projects and why most companies insist on employees using frameworks instead of Native PHP coding.
* Debugging code. For the entire period at Robisearch I have developed a sense of studying code keenly and trying to debug it. Also when a colleague has written code but is experiencing errors or difficulty in the code not running as it is supposed to, we brought in our heads together and tried to find what the problem is.
* Increased ability to perform comprehensive research on the how things are being done globally and implementing them in our systems. This is important since the digital world is constantly evolving and so are the interfaces, languages, database systems, frameworks and libraries necessary in development of these systems.

**2.4 CHALLENGES DURING THE TRAINING**

During my attachment period at Robisearch Limited I experienced a number of challenges but this did not derail my hunger learn more, do more and advance in terms of knowledge and skills.

Some of the challenges include:

* Lack of provision of transportation. This was eating too much into my pocket since the company was not providing fare to and from the workplace.
* Delayed allocation of funds when in the field. Sometimes when out on an installation, the finance would delay to send funds and this would bring about some delay
* Sometimes when training it was hard for me to see the projected Info considering the fact that I am short sighted.

**2.5 HOW TO SOLVE THE CHALLENGES FACED**

* The company should at least provide transport to the attaches so that they don’ t put that strain on the parents as much.
* Improved allocation of funds to those heading out to the field so that all work can be done fast without any hesitations. And also to make the company appear more professionally organized before the client.
* The company should also cater for the short sighted and in case there is a projection, they should consider making them larger or using software like AnyDesk so that everyone can see at the comfort of their computers.

**CHAPTER THREE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

**3.1 SUMMARY**

The attachment was an eye-opening experience to what is really done out there in the field, meeting new people and seeing how they write their own code was interesting and educative too.

The supervisor was helpful and helped out in all ways possible and always checked to make sure we were doing fine

**3.2 CONCLUSION**

Industrial attachment was an opportunity for me personally and I believe I am speaking for everyone by saying that the knowledge we learnt from the field directly was more than what we could ever get from class.

Aside from the skills acquired, attachment has opened our eyes to see our strengths and weaknesses, this will be helpful in specialization which will in turn lead to production of students who are competent enough for the job market.

**3.3. RECOMMENDATION**

The industrial attachment was a good and helpful learning process; it came with its own challenges but the reward was too good.

* I would personally recommend the university to help students find places that are in the course description to make sure they attain the necessary profession skills