# ACKNOWLEDGEMENT

Industrial attachment played a very important in my life as an ICT student as I got a chance to get exposed to new standards and technologies. I would therefore like to acknowledge the Ministry of Health for affording me the opportunity to do my attachment in their ICT department. I also appreciate my supervisor Mr. Apollo Muchilwa and my fellow attachés as they played a vital role in my learning process at the Ministry. I would also like to thank Jomo Kenyatta University of Agriculture and Technology for allowing us a period to go on attachment.

I would also like to appreciate the staff at the Ministry with whom I interacted during my attachment period, and most importantly my family for all the support they provided me with during my attachment period.

# DELARATION

I, Claud Kamau Watari declare that this report is my original project and that all the information provided herein is true to the best of my knowledge.

Date…………………………………… Signature……………………………..

Contents

[ACKNOWLEDGEMENT 1](#_Toc504317141)

[DELARATION 2](#_Toc504317150)

[Preface 3](#_Toc504317151)

[Benefits to students. 4](#_Toc504317152)

[CHAPTER ONE 4](#_Toc504317153)

[General description of the organization and departments where attached. 5](#_Toc504317154)

*[1.1](#_Toc504317155)* [General activities undertaken in the organization. 5](#_Toc504317155)

[Networking 5](#_Toc504317156)

[Web development 5](#_Toc504317157)

[Computer security techniques. 5](#_Toc504317158)

[Specific activities undertaken during attachment: 6](#_Toc504317159)

[Server and router configuration. 6](#_Toc504317160)

[Assisting clients with their IFMIS accounts. 6](#_Toc504317161)

[Web administration and maintenance 6](#_Toc504317162)

Training

Electrical Devices Setup and Maintenance

[Skills and competencies gained 6](#_Toc504317163)

[Activities applied for the benefit of the organization. 7](#_Toc504317164)

[Web development. 7](#_Toc504317165)

[Networking 7](#_Toc504317166)

[Strategy for the utilization of contacts established during attachment. 7](#_Toc504317168)

[CHAPTER TWO 8](#_Toc504317169)

[Analysis, observation and critique 8](#_Toc504317170)

[CHAPTER THREE 9](#_Toc504317171)

[Summary and conclusion 9](#_Toc504317172)

# Preface

Industrial attachment is a program adopted by Jomo Kenyatta University of Agriculture and Technology as part of the requirements for the award of a diploma in most of its programmes. The program requires that the students go on a minimum 3 months of industrial attahment at an organization of the students choice.

This report is therefore submitted to the Jomo Kenyatta University of Agriculture and Technology IT department, following a field attachment that started from October 2016 to January 2017. The attachment was undertaken at the Ministry of Health (Kenya), in the ICT department.

## Benefits to students.

1. Exposes the student to the complications of a real-time working environnment
2. Exposes the student to new standards and technologies
3. Equips the student with a workplace activities and skillset.
4. Enables the student to apply the knowledge learnt in class to the respective industry.

## **CHAPTER ONE**

## General description of the organization and departments where attached.

I undertook my attachment at the ICT department, which ensures and manages the development and maintenance of the ICT sector at the Ministry of Health. Here, the activities involved;

1. Ensuring that the computer system at the Ministry are running smoothly,

2. The network devices are functional, and in good condition.

3. Ensuring that users’ IFMIS accounts are secure and yet easily accessible to them.

4. Maintain an inventory of all the computing devices at the Ministry.

The department was headed by Mr. Apollo Muchilwa at the time of my attachment, but is currently headed by Mr. Ouma.

### General activities undertaken in the organization.

**Testing and Troubleshooting new computers and other devices**

Whenever the Ministry’s procurement department purchases new computers, it is the ICT department’s duty to test them before taking them to various offices. It was therefore in my jurisdiction of work to avail myself for such tasks.

### **Networking**

The ministry offered me an opportunity to learn a lot of skills in networking; from router and server configuration, LAN installation, LAN cable termination to the types of servers and their best areas of application. On a smaller level, there were also tasks that involved hard drive formatting, cleaning CPUs, maintaining power banks, telephony, peripheral and shared devices like printers and scanners.

### **Web development**

I was privileged to learn a lot on web development. It is here that I first had a real-time, practical experience with HTML, CSS and bootstrap creating a webpage for an event that the Ministry had. This experience kick-started my passion for coding and web development, which I have nurtured since.

### **Computer security techniques.**

The ministry of Health has digitized most of its operations, and with imminent threats on their systems, they have put up security measures to prevent any possible compromise on their systems. These include setting a firewall, creating a cloud back up of most of their systems and virtualizing their servers.

## **Specific activities undertaken during attachment:**

### **Server and router configuration.**

I was often tasked with router configuration at the Minsitry’s data-center. Oftentimes, personnel from Telkom Kenya would come to work on the servers and their cabling, and I would help them, and would later configure them according to the new updates.

### **Assisting clients with their IFMIS accounts.**

The ICT department at the Ministry of Health is tasked with issuing users with their passwords for the IFMIS system, an online financing system by the Kenyan government for its senior officials. As such, I often found myself required to assist a user with form validation, sign-up or login processes, especially after password updates.

### **Web administration and maintenance**

This involved making regular changes, updating content, optimizing web pages and graphics for speed and performance, bug fixing and normal routine maintenance.

# **Training**

During my time as an attache at the Ministry of Health, I was priviledged to attend a few training sessions and ICT staff meetings together with people from other government offices, including the ICT Authority, JICA Kenya etc, for workshop seminars and training.

# **Electrical Devices Setup and Maintenance**

Whenever a person moves into a new office, or a new employee is posted to a certain office, it was my duty to transfer the devices in said office, including computers, printers, television screens and decoders etc.

### **Skills and competencies gained**

During my attachment at the Ministry of Health, I was able to acquire a lot of skills, both general and specific. The department offered a conducive working environment hence allowing me to adapt quickly. I learnt the code of conduct of a real-time working environment. This included; the right channel of communication skills, dress code and employee relationships, creating contacts.

More so, the attachment experience gave me an opportunity to gain specific skills on the ICT field, it equipped me with the required skillset to handle an assignment of kind within the ICT industry, the skills included:

1. Web development.

2. Web administration and maintenance.

3. Web design.

4. Digital marketing.

5. Business intelligence.

6. Networking skills

7. Public relations.

## Activities applied for the benefit of the organization.

### **Web development.**

I assisted the technicians at the ICT department in mostly updating content and bug fixing of the Ministry’s website. I also assisted in web design to make the Ministry’s website user friendly.

### **Networking**

## I applied my networking skills in router configuration, cable laying, trunking and cable termination within the Ministry.

## **Strategy for the utilization of contacts established during attachment.**

Industrial attachment gave me an opportunity to make contacts with people who have great experience and network in the ICT industry, not just at the Ministry, but outside as well. I therefore plan to maintain those relations for future networking. My supervisor saw a smart student in me and I therefore plan to use that to my advantage.

The people I associated with, including fellow attaches and ministry employees are also instrumental in creating a network. On completing school, I intend to approach them for information on job opportunities. We could also partner with some of them in business ventures and much more.

The contacts are therefore a vital part in the making of my future, especially after completing school. I therefore intend to maintain these relations as they could come in handy at some point in life.

# CHAPTER TWO

## **Analysis, observation and critique**

Industrial attachment at the Ministry of Health was a great learning experience; it gave me the opportunity to learn new technologies and standards away from the classroom knowledge. I acquired general skills relating to the ICT industry and most of which matter. Those skills were so useful and applicable in the industry, they equipped me with a working knowledge.

Apart from the specific knowledge gained, the experience also enabled to learn from people, make contacts with them and learn on the job also. It taught me to cope with the pressure of a working environment and how to handle people. It was fulfilling to learning the hands-on skills required to develop a working knowledge. It was so fulfilling attending workshops and conferences with other officials. Today, I can comfortably attend an ICT job interview of any kind, because of the working knowledge I have right now.

However, there were a few drawbacks here and there, but which did not prevent the department from discharging its duties. There is a persisting issue at the Ministry, which involves procurement of computers, since most of them are old, and have been in use for several years. The ministry should look into said issue and find solutions, to avoid situations where other offices are inconvenienced or look at the ICT personnel as incompetent.

# CHAPTER THREE

## Summary and conclusion

Being an attaché at the Ministry of Health became one of the most important parts of my life, from the people, the environment and the workplace itself, I really learnt a lot. I gained substantial knowledge which has really boosted my skill set. Today, I can comfortably adapt to any working environment within the ICT industry and be useful at any capacity.

The program itself is also a good thought by the Jomo Kenyatta University of Agriculture and Technology of equipping their students with working knowledge applicable in the ICT industry. It prepares the students for the working environment on completing school.