

**UNIVERSITY OF KABIANGA**

**SCHOOL OF SCIENCE, TECHNOLOGY**

**DEPARTMENT OF COMPUTING INFORMATION SCIENCE**

**AND KNOWLEDGE MANAGEMENT**

**INDUSTRIAL ATTACHMENT REPORT**

**AT ITEN COUNTY REFERRAL HOSPITAL(ICRH)**

**FOR**

**TEN WEEKS (12TH OCTOBER TO 17TH DECEMBER)**

**COM329: INDUSTRIAL ATTACHMENT**

**BY ERASTUS KIPKORIR KEMBOI**

**REG: COM/M/0039/2018**

**PHONE: 0791425015**

**EMAIL: erastuskorir494@gmail.com**

**SUBMITTED ON …………………...**

# 

# DECLARATION

I do hereby declare without any reasonable doubt that the work presented in this attachment report is my own original and independent work and it has not been presented before to the faculty of science for the award of Bachelor’s Degree in Computer Science University of kabianga (UOK). No part of this report shall therefore be duplicated without my prior consent.

**ERASTUS KIPKORIR KEMBOI**

NAME ……………………………………………………REG NO…………………………

SIGNATURE ……………………………………………… DATE …………………………

# Abstract

Industrial attachment is one of the most crucial and imperative aspect of learning involved in the course of computer science. This section is undertaken after the completion of the third-year program. The whole exercise is expected to mentor the student and prepare them adequately for the full realization of the field requirements. This report is a compilation of the ten weeks’ industrial attachment I had at Iten Country Referral Hospital (ICRH), Elgeiyo Marakwet county. It summarizes the tasks performed, skills and competencies acquired, challenges encountered and includes suggestions and recommendations on how to counter the problems. It contains highlights of specific tasks performed, strong and weak points of the attachment as compared to the curriculum. My assessor was Dr. Rotich.

# DEDICATION

To all those who have supported, inspired, challenged and trained me. And specially to my beloved parents, lecturers and friends for all their guidance and encouragement which has made it possible for me to make it up to this point and as well as the attachment supervisors who bestowed me with the courage, the commitment and the awareness to follow the best possible route by their unmatchable style and by best possible training.

# ACKNOWLEDGEMENT

This attachment would not have been successful without the cooperation and support of a number of people who enabled me to gain much more than what the industrial aspects of the attachment could have offered.

First, I would like to appreciate the Almighty God for the charitable time, good health, strength and aptitude that enabled me to complete my attachment period.

Secondly, my gratitude goes To University of kabianga academic staff that has imparted their vast knowledge that has assisted me during my industrial attachment. Special thanks go to the HOD computing Information science and knowledge management (CISKM) who gave me the opportunity for attachment and Dr. bii for his unwavering guidance in the field of computer science.

Thirdly, many thanks also go to the management and the ICT staff of Iten County Referral Hospital for their unwavering support by giving me a chance to be part of them for period 10 weeks. Worth mentioning is the invaluable support and guidance that I constantly got throughout my industrial attachment from the administration and more so from the ICT department fraternity of that I had more opportunity interacting with and for guiding and supporting me to gain experience in several fields in both Software and Hardware and making the working environment conducive and friendly. Such experience cannot be attained in an ordinary class environment and are largely interplay between the class-based inputs from my lecturers.

Finally, I would like to thank my loving parents for their support throughout the entire period of my attachment.

# Table of content

Table of Contents

[DECLARATION ii](#_Toc95463592)

[Abstract iii](#_Toc95463593)

[DEDICATION iv](#_Toc95463594)

[ACKNOWLEDGEMENT v](#_Toc95463595)

[Table of content vi](#_Toc95463596)

[List of tables vii](#_Toc95463597)

[List of figures viii](#_Toc95463598)

[List of abbreviation ix](#_Toc95463599)

[1.0 ATTACHMENT INSTITUTION INFORMATION 1](#_Toc95463600)

[1.0BACKGROUND 1](#_Toc95463601)

[1.1 LOCATION 1](#_Toc95463602)

[1.2 VISION 1](#_Toc95463603)

[1.3 MISSION STATEMENT 1](#_Toc95463604)

[1.4CORE VALUES 1](#_Toc95463605)

[*1.5* OrganizationalStructure 2](#_Toc95463606)

[2.0 ATTACHMENT EXPERIENCE 4](#_Toc95463607)

[2.1 DESCRIPTION OF TASKS PERFORMED DURING ATTACHMENT PERIOD 4](#_Toc95463608)

[2.2 SKILLS ATTAINED AND COMPETENCIES 4](#_Toc95463609)

[2.3CHALLENGES ENCOUNTERED DURING THE ATTACHMENT 6](#_Toc95463610)

[2.4 CONCLUSION 6](#_Toc95463611)

[2.5 RECOMMENDATIONS 7](#_Toc95463612)

[GANTT CHART 8](#_Toc95463613)

# List of tables

Table 1----------------------------------------------------------------------------------------------------------------8.

# List of figures

# List of abbreviation

**UOK - University of Kabianga**

**HOD - Head of Department**

**CISKM - Computing Information Science and Knowledge Management**

**ICT - Information Communication and Technology**

**ICRH - Iten County Referral Hospital**

**UPS - Uninterrupted Power Supply**

**RAM - Random Access Memory**

**IT - Information Technology**

**PC - Personal Computer**

**OS - Operating System**

**LAN - Local Area Network**

**ERP - Enterprise Resource Planning**

**IP - Internet Protocol**

**NHIF - National Hospital Insurance Fund**

**CHAPTER ONE**

# 1.0 ATTACHMENT INSTITUTION INFORMATION

# 1.0BACKGROUND

Iten County Referral Hospital is a government health facility located in Elgeyo Marakwet county. The facility was formerly known as the Iten District Hospital. It is a county referral hospital. It is a level 4 hospital

# 1.1 LOCATION

Iten County Referral Hospital is located in keiyo north constituency, kamariny division, irong location iten town, elgeiyo Marakwet county 34 Kilometers from Eldoret -kabarnet road, Kenya.

.

# 1.2 VISION

To be the leading Multi-Specialty Hospital for Healthcare, Training and Research in Africa.

# 1.3 MISSION STATEMENT

Iten County Referral Hospital (ICRH) is committed to providing timely, cost effective and compassionate multi-Specialty healthcare services that are responsive to the needs and values of the clients, fostering learning and growth through Training and Research, utilization of new technologies, continuous improvement and participation in National Health Planning.

# 1.4CORE VALUES

To advance and protect the public image of the Hospital at all times.

To be sensitive, discerning and attentive in serving our clients.

To observe and maintain high standards at all times.

To uphold Teamwork at all time.

To respect and up hold the rights and integrity and dignity of our clients.

To adhere and respect the Constitution of Kenya in the provision of specialized health services.

# 

# *1.5* OrganizationalStructure

**BOARD**

**CEO**

**Nursing**

**Officer**

**Medical**

**Superintendent**

**Administrator**

**Financial**

**controller**

**CHD Director**

**D/NOIC**

**Nurses**

**Wards**

**Assistant**

**Director**

**support**

**Legal**

**Officer**

**Head**

**chaplain**

**CO in charge**

**XRAY**

**Lab**

**Chief Cashier**

**IT Department**

**Chief**

**Accountant**

**COs**

**NHIF**

**Registry**

**A/c**

**Receivables**

**A/c**

**payable**

**Payroll**

**Management**

**Nursing school**

**Principal**

**Instructor**

**Tutors**

**1.6 DEPARTMENTS ATTACHED.**

1. **IT Department**

* Checking switch status
* Relocating and reforming a computer system
* Replacement of UPS machines
* Installation of windows OS
* Internet troubleshooting/Network configuration
* Networking
* Installation of printers in machines
* Arranging IT stores.
* Ethernet cable design

1. **Registration Department**

* Register inpatient and outpatient without insurance cover.
* Register outpatients and inpatients with insurance cover such as Britam, AON, NHIF.
* Check the status of smart cards of the patient using smart ling machine.

**CHAPTER TWO**

# 2.0 ATTACHMENT EXPERIENCE

# 2.1 DESCRIPTION OF TASKS PERFORMED DURING ATTACHMENT PERIOD

* Formatting and installing software
* Hardware installation
* Troubleshooting network and Software
* Hardware design
* Networking (LAN set up)

# 2.2 SKILLS ATTAINED AND COMPETENCIES

Advanced knowledge on Servers, Switches and routers and their configuration and use.

Gained knowledge on the use and operation of various hardware devices and application software.

Good rapport and confidence in communication with the staff and the patients.

What step to take in case of an emergency in IT.

Importance of teamwork and cooperation.

1. ***Formatting and installing software***

* Installation of antivirus software (Kaspersky Anti-virus 6.0) and updating it.
* Installation of Operating system (Windows 7,10, 8.1 and XP).
* Installation and Activation of Microsoft Office application program (Office 2010,2013,2016,2019).
* Installation of outlook and its configurations.
* Installing Browsers (Firefox, Google chrome) and configuring it.
* Installing document reader (Foxit reader).
* Installing Clear Canvas software for viewing X-ray images.

1. ***Hardware***

* Upgrading computers for example replacing CMOS battery and adding RAM
* Setting up a computer in a new location
* Replacing faulty peripherals for instance keyboard, mouse, monitors, UPS and their batteries etc
* Blowing of PC’s and Printers and cleaning them.
* Crimping Ethernet cables using RJ45 and CAT 6 twisted cables.
* Configuring Ethernet cables connections using cable tester.
* Replacing toners on various type of printers

1. ***Client Desk***

* Providing support to users who have problems in network connections
* Helping users with problems in receiving emails, downloading and printing email attachment files.
* Helping users with printer connection problems.
* Helping users to troubleshoot slow PC’s.

1. ***Networking***

* Identifying problems in the network for example loose cables.
* Troubleshooting the problems of network cables.
* Resolving user login conflicts and IP address conflict.
* Configuring proxy settings.
* Monitoring the proxy server to ensure every user has access to the network

**Interaction with the staff in the institution.**

I was able to interact with a good number of staff from various departments. Through them I was able to learnt a lot from them through observation and sharing with them. I was also able to learnt how to approach and interact with both outpatients and inpatients of various levels of illness while solving Computer problems in various inpatients wards and registration sections. I did interact with the staff members from various hierarchical positions within the hospital. I had an opportunity to share with some them more about the institution and general life activities. They were loving, caring and trustworthy.

.

# 2.3CHALLENGES ENCOUNTERED DURING THE ATTACHMENT

* Limited access to organizations system; The confidentiality and controlled access of Navision system through administration and access password for login limited the practice of the concept covered during the industrial attachment.
* Limited period for training on the activities done by the Hospital and on the ERP application used.
* I never face much problems could only arise when I am challenged in solving a particular problem outside the ICT office for instance network connection problem in registration section. In this found it a problem as more patients could be waiting for registration and system is unresponsive.

# 2.4 CONCLUSION

The job scope and duties assigned focused primarily on hardware, software and networking. The work was highly relevant to the field of study in Computer Science as it includes all computer aspects.

During the period of attachment, valuable knowledge was gained through active participation and inquisitive learning. Knowledge on how to handle hardware devices for example repair, cleaning and maintenance was acquired.

Use of Kranium Integrated Hospital System application software in Hospital was explored. Knowledge on servers, LAN connection and IP phones was also gained.

Skills learned included build of good rapport with the staff and confidence in communication with senior managers. This industrial attachment proved to have highly supplemented the student’s insight in the computer science world. It was a beneficial and educating experience.

# 2.5 RECOMMENDATIONS

The Institution should consider providing the students on industrial attachment with temporary user names to enable them practice on the ERP application.

The institution should major focus to have more practical’s lessons to enable the students grasp the knowledge of hardware which will greatly apply during their industrial attachment.

The institution should focus to have organized workshop for the students to update them on the current technologies that may be of importance and what they should have to majorly focus in areas of specialization.

The ICT department should consider providing enough training of the activities and application used by the Hospital and also plan to have workshops for hospital workers to know the importance of ICT.

The ICT department should have a schedule to regularly monitor hospital computers and plans to employ more of the current technology to implement their activities.

# GANTT CHART

**GANTT CHART**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Week1** | **Week2** | **Week3** | **Week4** | **Week5** | **Week6** | **Week7** | **Week8** | **Week9** | **Week10** |
| LAN network layout |  |  |  |  |  |  |  |  |  |  |
| Overall survey on hospital switches |  |  |  |  |  |  |  |  |  |  |
| setting up LAN network |  |  |  |  |  |  |  |  |  |  |
| cable crimping |  |  |  |  |  |  |  |  |  |  |
| Data entry in covid-19  vaccination |  |  |  |  |  |  |  |  |  |  |
| backing up of data |  |  |  |  |  |  |  |  |  |  |
| Troubleshooting |  |  |  |  |  |  |  |  |  |  |

**Table 1. Gantt chart**

**REFERENCES**

Rachet, B. (2014). Swot Analysis of Apple Inc. Docs. school Publications.

Susanto, H. (2016). Revealing the Role of ICT for Business Core Redesign. Available at SSRN.

**APPENDICES**

1. Work schedule (logbook).
2. Correspondence (With institution/Industry, university, etc.)
3. University Supervisor’s evaluation.
4. The industry/institution organizational chart.