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**SCHOOL OF SCIENCE, ENGINEERING AND HEALTH
DEPARTMENT OF COMPUTER SCIENCE**

STUDENT'S ATTACHMENT LOG BOOK

(Bachelor of Science in Applied Computer Science)

DURATION: 17 WEEKS

INTRODUCTION

This book is to assist the student to keep record of the training. It will show the departments and sections in which the student has worked and the periods of time spent in each.

INSTRUCTION TO THE STUDENT

The attachment program is considered as two examinable units that the students are supposed to undertake and be examined. The whole exercise is marked out of 100 marks.

NOTICE OF RESUMPTION OF ATTACHMENT

The student is supposed to notify the Attachment coordinator by filling a form provided regarding the details where he/she is attached. This should be communicated to the above within the first week of getting the attachment.

DAILY REPORT

The daily work carried out during the period of training is to be recorded clearly with sketches and diagrams where applicable on the logbook.

WEEKLY SUMMARY REPORT

This is summary of the work done in a week and should cover a report of work covered. Students are required to present the logbook weekly to the industry-based supervisor for assessment of content and progress. The supervisor can use any page for his/her comments where necessary.

CHANGE OF ATTACHMENT

A student is expected to start and finish his/her attachment in one establishment. If it becomes absolutely necessary that he/she must change his/her place of attachment, the student should first secure permission in writing from the university.

His/her application for change of place of attachment should indicate the name and address (not just post office box) of the company or industry to which he/she wishes to transfer. Any attachment not properly authorized will be cancelled.

ATTACHMENT LOGBOOK

The logbook will be filled by the student at the end of every working day and should comprehensively indicate the tasks done and the skilled learnt in that particular day. The logbook should be kept at the work place and **MUST NOT** be carried home.

UNIVERSITY SUPERVISOR'S VISIT

The university supervisor will check the logbook when he/she visits the students to ensure that proper training is being received, and record his/her comment on the paper provided for that purpose, toward the end of the book.

INDUSTRY BASED SUPERVISOR

The industry-based supervisor(s) will make comments on a weekly basis on the sheet of paper provided. This is to ensure that if the student is to rotate to several departments and units each unit supervisor will comment on the student performance.

INDUSTRY BASED SUPERVISOR'S EVALUATION

Towards the end of the attachment, program the industry-based supervisor will undertake an overall assessment as per the form that shall be provided. These should be filled in confidence and sent to the university in a sealed envelope

REPORT WRITING

In addition to the daily and weekly record, the student should submit a report of the work done during the attachment. e.g full coverage of the attachment, problems encountered e.t.c. Suggest improvements to make the program worthwhile. A comprehensive guide on report writing is provided by the coordinator.

REPORT SUBMISSION

The logbook and report must be submitted to the attachment coordinator at the end of the attachment.

Attach the letter from the employment that granted you the attachment vacancy indicating when the attachment started and when it will end.

The Log-Book should be well bound.

STUDENT'S PERSONAL INFORMATION

Name of student

(Surname first)

Registration No. of the student

Faculty

Course of Study

Stage/year of study

Name and address of company/establishment attached

NCBA BANK
Masaba Road

Name of Industry based supervisor

Designation

Telephone contact

Mobile

Duration

From

To

MWANIKI RYAN WARUI

20-0911

School of Science

APPLIED COMPUTER SCIENCE

4th YEAR

Jackson Mlutu

Retail Internet Banking

0720844418

0720844418

nd

2 May 2023

st

31 August 2023

STUDENT'S WEEKLY PROGRESS CHART
WEEK ONE

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon.		
Tue. 2/5/2023	Reporting to NCBA House Meeting Industrial Supervisor	Onboarding
Wed. 3/5/2023	Onboarding and access to the company premises	Onboarding
Thur. 4/5/2023	Issuance of Laptop and setting up of credentials	Onboarding
Fri. 5/5/2023	Settling and allocation to designated department	Onboarding

(Please produce a summary for each week of attachment)

- On the first day, i was set up by the company HR for the internship. I was onboarded into the company and issued with a laptop.
- I met the Industrial supervisor (Edgar Otiya) Senior Manager Core Banking Development.
- I was settled and allocated a sitting desk to operate on as I start my attachment.

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General comments on the students' progress

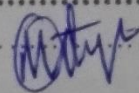
Onboarding process took longer than expected.
Eventually settled down.

NAME OF THE SUPERVISOR..... Edgar Otiya

DEPARTMENT/UNIT..... SYSTEMS DEVELOPMENT

DATE..... 05/05/2023

SIGNATURE.....



WEEK TWO

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 8/5/2023	Software installation for Android development i.e - Android studio - Java - Flutter - Visual studio code	Software Installation
Tue. 9/5/2023	Network Operations center configuration and issuance of network access via proxy	Networking and LAN connection
Wed. 10/5/2023	Grant to NCBA GROUP Pamoja Omni Channel repository	Azure Cloud Services
Thur. 11/5/2023	Git cloning Of Snap company flutter codebase	Git cloning and pull requests
Fri. 12/5/2023	Reconfiguring of repository and establishing a local repository as a copy to start working on the flutter codebase	Git cloning and pull requests.

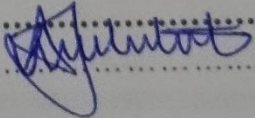
(Please produce a summary for each week of attachment)

- I was granted access to NCBA GROUP Azure company repository to access Snap Company flutter codebase left behind.
- I was tasked on setting up necessary dependencies required to jump start to NCBA Pamoja App.
- I was reassigned to Jackson Mulumu, the technical lead on the Pamoja Application development.

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General comments on the students' progress

Ryan was able to connect to Bank's Reporting and retrieve the Flutter Code for Pamoja Project.

NAME OF THE SUPERVISOR..... MULUMU JACKSON
DEPARTMENT/UNIT..... IT
DATE..... 12/5/2023..... SIGNATURE..... 

WEEK THREE

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 15/5/2023	Overview of Snap codebase and having a review on the MVC (Model view controller) logic	Flutter overview
Tue. 16/5/2023	Keycloak security configuration implemented for access into the application.	Keycloak security configuration.
Wed. 17/5/2023	Frontdoor Azure access as a CDN (content delivery network) that provides faster access to content across the globe.	Azure Frontdoor service.
Thur. 18/5/2023	Keycloak config endpoint and client id and client Secret configuration	Keycloak configuration
Fri. 19/5/2023	Keycloak services as an identity provider	Keycloak Sign in options and services

(Please produce a summary for each week of attachment)

- Having cloned the snap company codebase, I was tasked with getting the application up and running.
- At first, to access any service, keycloak was used as and IDP (Identity provider) as a gateway service to the application.
- During the week I studied how to implement and work with keycloak services. Which turned out quite successful.

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General comments on the students' progress

Ryan was able to review and learn the various components and architecture of the project to enable him to start work.

NAME OF THE SUPERVISOR.....MULUTU JACKSON

DEPARTMENT/UNIT.....IT

DATE.....19/5/2023

SIGNATURE.....

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WEEK FOUR

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 22/5/2023	Splash screen emulation Success	Riv file and splash screen play
Tue. 23/5/2023	Welcome screen emulation Success	Page emulation
Wed. 24/5/2023	Pin login Page emulation Success	Page emulation
Thur. 25/5/2023	Application localization emulation Success	flutter-pin-code fields pub.get package.
Fri. 26/5/2023	Application Provider Scope Success	State management package provider

(Please produce a summary for each week of attachment)

- This week i was able to get all the screens up and running for a successful login into the application provided by snap.
- The snap codebase was not functional but i got commented out all the API calls to the application and worked on the view part and user interface of the application.
- I worked on the below screen:
 - > Splash Screen
 - > Welcome Screen
 - > Pin login Page
 - > Pin autofill functionality.

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General comments on the students' progress

Ryan was able to recreate a few screens from the codebase left behind by the vendor.

NAME OF THE SUPERVISOR MULUTU JACKSON
DEPARTMENT/UNIT IT
DATE 26/05/2023 SIGNATURE [Signature]

WEEK FIVE

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 29/5/2023	Studying API's (Application Programmable Interface) testing and deployment into Azure APIM management.	Azure APIM
Tue. 30/5/2023	POST functionality and calls : Headers parameters Bearer tokens	POST calls
Wed. 31/5/2023	GET functionality and calls : Headers parameters Bearer tokens	GET calls
Thur. 1/6/2023	PUT functionality and calls : Headers parameters Bearer tokens	PUT calls
Fri. 2/6/2023	DELETE functionality and calls : Headers parameters Bearer tokens	DELETE calls

(Please produce a summary for each week of attachment)

- For API's 2.1 ~~studied~~ studied the various functional calls to the T24 Banking system including

> POST request

> GET request

> PUT request

> DELETE request

- The API calls are quite significant in querying the core banking system database.

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General comments on the students' progress

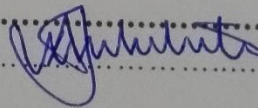
Ryan started work on API integration's used in the project.

NAME OF THE SUPERVISOR... MULUTU JACKSON

DEPARTMENT/UNIT... IT

DATE... 2/6/2023

SIGNATURE...



WEEK SIX

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 5/6/2023	Borrow Screen emulation success	Page emulation
Tue. 6/6/2023	More Screen Page emulation success	Page emulation
Wed. 7/6/2023	Payments page emulation success	Page emulation
Thur. 8/6/2023	Home Screen Mobile layout emulation success	Page emulation
Fri. 9/6/2023	Home Screen Web layout emulation success	Page emulation

(Please produce a summary for each week of attachment)

- This week was quite significant, as I coded through most of the pages having done successful page emulation of various screens in the Pomaja Application

- The screens are below:

- > Borrow Screen
- > More Screen Page emulation
- > Payments page
- > Home Screen Mobile layout
- > Home Screen Web layout

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General comments on the students' progress

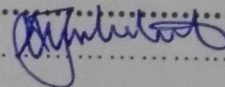
Ryan was able to do more screen emulations using Flutter.

NAME OF THE SUPERVISOR... MULUTU JACKSON

DEPARTMENT/UNIT... IT

DATE... 9/6/2023

SIGNATURE...



WEEK SEVEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 12/6/2023	Debit card widgets and 724 Banking system requests and calls.	724 Banking system
Tue. 13/6/2023	Credit card widgets for users and corporate users and 724 Banking system requests and calls.	724 Banking system
Wed. 14/6/2023	Hub store screen emulation success.	Screen and page emulation
Thur. 15/6/2023	Users screen emulation success	Screen and page emulation
Fri. 16/6/2023	Billers screen emulation success	Screen and page emulation

(Please produce a summary for each week of attachment)

- The NCBA Pamaja application interaction to the T24 Banking system page had a slight hiccup in terms of the User Interface.

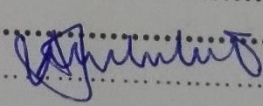
- After a whole week of debugging, it was successful and the various pages done include:

- > Hub store
- > User screen
- > Billers screen

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General comments on the students' progress

Ryan added more functionality to the Pamaja App and especially interaction with the core banking.

NAME OF THE SUPERVISOR..... M U L U T U J A E K R O N
DEPARTMENT/UNIT..... I T
DATE..... 16/06/2023..... SIGNATURE..... 

WEEK EIGHT

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 19/6/2023	HIB Approve Application Documentation review on the HIB docs Identity provider	HIB Approve
Tue. 20/6/2023	OpenId provider Issuer Discovery Endpoint	UAT URL and PROD URL
Wed. 21/6/2023	Client login to HIB and Creating User under HIB	HIB client login and User creation
Thur. 22/6/2023	Creating a device and end user endpoint and parameters to fill in using the payload	Device creation in HIB idp
Fri. 23/6/2023	Linking and delinking a device to a user in HIB using payload.	Linking and delinking device to a user in HIB

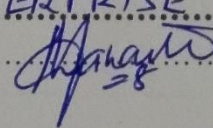
(Please produce a summary for each week of attachment)

- HLB approve application is an identity provider security application.
- I was assigned to Moses Nyonji the (Enterprise Architect) to assist him in doing the documentation review on HLB which is and IBP used by the Pamoja Application and CIB (Corporate Internet Banking).
- We did quite significant breakthrough especially in configuration of the application and use of the application subsidiary application in OTP generation.

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General comments on the students' progress

Ryan assisted in testing and documenting the HIB REST API for Identity management. This was useful in integrating both retail and Corporate Internet banking applications

NAME OF THE SUPERVISOR..... MOSES, NYONJI
DEPARTMENT/UNIT..... ~~EA~~ IT/ENTERPRISE ARCHITECTURE
DATE 23/06/2023..... SIGNATURE..... 

WEEK NINE

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 26/6/2023	Password creation and password authentication in HLB configuring the headers and the payload.	Password creation and authentication
Tue. 27/6/2023	Pin creation and Pin authentication in HLB configuring the headers and the payload	Pin creation and authentication
Wed. 28/6/2023	Setting up of Bluestacks for OTP generation and subsidiary applications for interaction.	OTP generation.
Thur. 29/6/2023	OTP creation and OTP authentication. HLB approve application to create and authenticate the generated OTP's	OTP generation.
Fri. 30/6/2023	Security question creation and authentication. HLB approve application to set up the security questions payload and authentication.	Security question creation and authentication.

(Please produce a summary for each week of attachment)

- Having continuously worked with the enterprise architect, we solved the following:

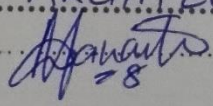
- > Password creation
- > Password authentication
- > Pin creation
- > Pin authentication
- > OTP creation
- > OTP authentication
- > SQ creation
- > SQ authentication

- The documentation has to be done to give to the Ronford team vendors to use in the development of the New NCBA Pamoja Application.

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General comments on the students' progress

Ryan assisted in testing password, pin, otp and security questions authentication APIs of HID, a critical dependency for the retail Internet banking application

NAME OF THE SUPERVISOR..... MOSES NYONJI
DEPARTMENT/UNIT..... IT - ENTERPRISE ARCHITECTURE
DATE..... 30/6/2023..... SIGNATURE..... 

WEEK TEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 3/7/2023	Documentation Review on Azure Notification Hub	Azure Notification Hub
Tue. 4/7/2023	Connecting Android Application to Firebase	Firebase SDK plugin.
Wed. 5/7/2023	Firebase documentation review on connection and plugins	Firebase SDK plugins
Thur. 6/7/2023	Firebase Application Registration	Firebase SDK plugins and application Registrations.
Fri. 7/7/2023	Using Firebase Features	Firebase SDK plugins

(Please produce a summary for each week of attachment)

- This week I was tackling Azure Notification Hub and Firebase Application Registration.
- Having worked with the Enterprise Architect, we were resolving an Azure notification dependency on messaging services.
- Documentation Review and testing was what I was doing to do the patching of Azure services and Firebase to a dummy application.

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General comments on the students' progress

Ryan assisted in testing and documenting integration to Azure Notification Hub for the bank's mobile apps. He developed a dummy test app for integration testing.

NAME OF THE SUPERVISOR..... MOSES NYONJI
DEPARTMENT/UNIT..... IT - ENTERPRISE ARCHITECTURE
DATE..... 7/7/2023..... SIGNATURE..... *Moses*

WEEK ELEVEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 10/7/2023	Learning on the module security of x17	x17 module
Tue. 11/7/2023	Documentation Read on x17	x17 module.
Wed. 12/7/2023	x17 doc review and H15 security	x17 and H15 security.
Thur. 13/7/2023	Comparison between x17 and H15	x17 and H15
Fri. 14/7/2023	Documentation of x17 and H15	x17 and H15

(Please produce a summary for each week of attachment)

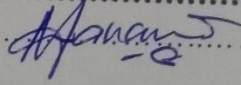
- This week I was reading about XIT and HIB which are third party software used in authentication of their applications.

- I did a documentation review and comparison between XIT and HIB.

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General comments on the students' progress

Ryan assisted in technical comparison of the two solutions that the bank is considering for ~~their~~ external user authentication viz HIB and X-Infotech. He documented the analysis to assist with decisioning.

NAME OF THE SUPERVISOR..... MOSES NYONJI
DEPARTMENT/UNIT..... IT- ENTERPRISE ARCHITECTURE
DATE..... 14/7/2023..... SIGNATURE..... 

WEEK TWELVE

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 17/7/2023	HIB assistance to the project.	HIB assistance.
Tue. 18/7/2023	HIB assistance to the vendor	HIB assistance
Wed. 19/7/2023	HIB assistance to the vendor	HIB assistance.
Thur. 20/7/2023	HIB assistance to APIM manager.	HIB assistance.
Fri. 21/7/2023	HIB SDK configs.	HIB assistance.

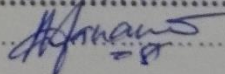
(Please produce a summary for each week of attachment)

- This week the major highlight was assistance of usage of HIB to API testers.
- The team needed assistance in consumption of the SOAP API for security question validation.
- We converted the SOAP API to a restful API.
- I still learnt about Swagger Application for application API management.

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General comments on the students' progress

Ryan assisted the APIOPS team in usage and testing of the SOAP API for Security Question validation of the HIB system. They were able to convert soap api to restful API using Azure APIM policies.

NAME OF THE SUPERVISOR..... MOSES NYONJI
DEPARTMENT/UNIT..... IT - ENTERPRISE ARCHITECTURE
DATE..... 21/7/2023..... SIGNATURE..... 

WEEK THIRTEEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 24/7/2023	Hib documentation of Out of Band	Hib docs and OOB
Tue. 25/7/2023	Out of Band demo on application.	OOB application
Wed. 26/7/2023	SMTP and SMPP configuration of OOB	SMTP and SMPP configs
Thur. 27/7/2023	SMPP messaging service configuration.	SMPP configs
Fri. 28/7/2023	SMTP emailing service for messaging service.	SMTP configs

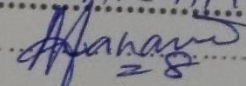
(Please produce a summary for each week of attachment)

- This week we were tackling Out of Band configurations with SMTP (small mail transfer protocol) and SMPP (Short Message Peer to Peer protocol) for the application messaging parsing.
- Use of Melrose Labs for the messaging protocol.
- Updating the HIB documentation about OOB and user to client upgrade.

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General comments on the students' progress

Ryan assisted with testing and configuring Out of Band (OOB), that is SMS & Email OTP (One Time Password) generation and authentication using HIB System.

NAME OF THE SUPERVISOR..... MOSES NYONJI
DEPARTMENT/UNIT..... IT- ENTERPRISE ARCHITECTURE
DATE..... 28/7/2023..... SIGNATURE.....  28

WEEK FOURTEEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 31/7/2023	Mtech vendor support with HIB on client creation with	Mtech support
Tue. 1/8/2023	Mtech support with HIB on user policies	Mtech support
Wed. 2/8/2023	Mtech support with HIB OTP configuration.	Mtech support
Thur. 3/8/2023	Mtech support with HIB Security Question configuration.	Mtech support
Fri. 4/8/2023	Introduction to kafka as a middleware solution for messaging banking solution for 724.	Kafka Introduction.

(Please produce a summary for each week of attachment)

- This week, I was supporting Mtech (a vendor) on the HIB configurations and OTP generation.
- Moses (the Solutions Architect), was dealing with the projects, so I aided him in supporting Mtech the vendor.
- Sang (the developer), we did configurations and url configurations.

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General comments on the students' progress

RYAN SUPPORTED IN THE SETUP, AND TESTING OF THE NEW APP CLIENT ID IN HID TEST APPLIANCE. HE WAS RESOURCEFUL IN ENGAGING WITH THE VENDOR DEVELOPER AND ASSISTING THEM WITH THE INTEGRATION.

NAME OF THE SUPERVISOR..... MOSES MWANGI NYONJI

DEPARTMENT/UNIT..... IT

DATE..... 4/8/2023

SIGNATURE.....

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WEEK FIFTEEN		
DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 7/8/2023	Kafka security read and configuration	Kafka configuration.
Tue. 8/8/2023	Sha1 and Sha256 security on android firebase configuration.	Sha1 and Sha256 firebase configuration.
Wed. 9/8/2023	MTech support on the callback url.	MTech support on the callback url.
Thur. 10/8/2023	Kafka configuration as a middleware to the T24 messaging. Assisting the solutions architect.	Kafka configuration
Fri. 11/8/2023	Running Kafka on virtual machines to listen in on messages.	Kafka configuration.

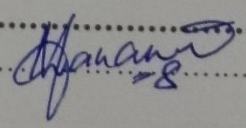
(Please produce a summary for each week of attachment)

- This week, I aided the solutions architect in kafka as a middleware configuration to T24.
- Essentially kafka uses topics to talk to other applications offsetting the messaging protocol of T24.
- The solution architect was doing its configuration and testing on virtual machines. I learnt alot on its configuration, processing and security.

FOR THE USE BY THE INDUSTRIAL SUPERVISOR ONLY

General comments on the students' progress

RYAN ASSISTED WITH CONFIG OF KAFKA MESSAGE BROKER. THIS MIDDLEWARE IS MEANT TO BE USED FOR ASYNC MESSAGING BETWEEN BANKING APPLICATIONS AND CORE BANKING

NAME OF THE SUPERVISOR..... MOSES MWANGI NYONJI
DEPARTMENT/UNIT..... IT
DATE..... 11/8/2023..... SIGNATURE..... 

WEEK SIXTEEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 14/8/2023	Induction training - Learning & development - Performance appraisal - Investment Banking	Induction
Tue. 15/8/2023	Induction training - Retail Banking - Bancassurance - Customer Experience - Asset finance.	Induction
Wed. 16/8/2023	Induction training - Global Business - Credit operations - Risk management - IT security	Induction
Thur. 17/8/2023	Induction training - Loop & S - Risk & compliance - Sustainability drive	Induction
Fri. 18/8/2023	Induction training - Wrap up and training evaluation	Induction

(Please produce a summary for each week of attachment)

- This week was quite interesting since the bank organized for an induction training into the bank.

- Various things or topics are learnt were:

✓ Learning and development.

✓ Investment Banking

✓ HR services

✓ Retail banking

✓ Bancassurance

✓ Customer Experience

✓ Corporate banking

✓ Asset finance.

✓ Global Business

✓ Credit operations

✓ Credit Risk

✓ IT security.

✓ Internal controls

✓ Audit overview

✓ Risk and compliance

✓ Loop BFS.

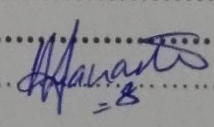
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General comments on the students' progress

RYAN WAS OUT OF OFFICE THIS WEEK ATTENDING
OF INDUCTION PROGRAM ORGANISED BY HR

NAME OF THE SUPERVISOR..... MOSES MWANGI NYONJI

DEPARTMENT/UNIT..... IT

DATE..... 18/8/2023..... SIGNATURE..... 

WEEK SEVENTEEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 21/8/2023	CRM architecture review ETL API to be mapped to CRM cloud architecture	CRM and ETL API's review.
Tue. 22/8/2023	Devops study session on cloud deployments. → Mtech endpoint configuration	Devops and Mtech support.
Wed. 23/8/2023	Mtech support configuration.	Mtech support
Thur. 24/8/2023	Mtech support configurations.	Mtech support
Fri. 25/8/2023	Mtech support and H1B configurations.	Mtech support.

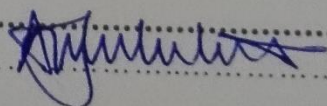
(Please produce a summary for each week of attachment)

- This week, I was supporting Mtech in HIB related security endpoint configurations.
- With the help of the solutions architect, most issues were dealt with with IP configurations and emailing SMTP services.

FOR THE USE BY THE INDUSTRIAL SUPERVISOR ONLY

General comments on the students' progress

Helped with configuration of SMTP on our SMS gateway to support authentication OTPs.

NAME OF THE SUPERVISOR... JACKSON MULUTU
DEPARTMENT/UNIT... ICT
DATE... 25/8/2023... SIGNATURE... 

WEEK EIGHTEEN

DAY	DESCRIPTION OF WORK DONE	NEW SKILLS LEARNT
Mon. 28/8/2023	API management documentation on all API's on Azure.	APIM
Tue. 29/8/2023	Documentation review on APIM. HID	APIM
Wed. 30/8/2023	Documentation on all API's on APIM. Remote	APIM
Thur. 31/8/2023	Architectural review on Retail Internet Banking - CRM Corporate Internet Banking	Architecture.
Fri.		

(Please produce a summary for each week of attachment)

- This week, I was getting to do documentation on all API's mapped on APIM for the technical Go-Live for CIB (Corporate Internet banking) project.
- I was supporting Paul in the configurations and testing and documenting the API's.

FOR THE USE BY THE INDUSTRIAL SUPERVISOR ONLY

General comments on the students' progress

Rwan was instrumental in developing documentation for the open Banking platform by cataloging API req / response from client application to all the core-banking system.

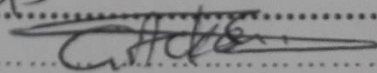
NAME OF THE SUPERVISOR.....

DEPARTMENT/UNIT.....

DATE 31/8/2023

Paul Giske Khachi
DevOps & API OPS

SIGNATURE.....



FOR THE USE BY THE VISITING UNIVERSITY SUPERVISOR ONLY
(General comments on the students' progress)

Ryan is an astute student and worker. He took his assignments and took very seriously and helped us achieve great milestones in the Omnichannel projects.

Ryan helped us setup the authentication and verification modules, did documentation and research and also helped other contract and interns to settle in their roles in the bank.

He is a great resource that is the bank needs and we hope he will be coming back to work for us.

Name of supervisor..... JAKSON MULUTU

Nature of Supervision..... IT

Date..... 31/08/2023