

MOBILE APPLICATION DEVELOPMENT

Group 3 Members

Renee Harawa BIT/003/18

Chikondi Tembo BIT/045/18/E

Rehoboth Harawa BIT/016/18

Memory Malola BIT/007/18

Anthony Phiri BIT/037/18/E

Lecturer

Menard Phiri

mephiri@must.ac.mw

MUST PERSONAL DIGITAL ASSISTANT

November 23, 2021

Notation/ Abbreviations

MUST - Malawi University Of Science and Technology

App - Application

List of Contents

1	Introduction	1
2	Problem Description	1
3	Justification on why it is important to solve the problem	1
4	Timeline of our project	2
5	Business and Technology capabilities	3
6	Architectural Design	4
7	Database design and database type we are going to use	5
8	Implementation Business Rules	5
9	Integration	5
10	Technology to be used	5
11	How will System be Secured	6
12	How will Interfaces look like	6
13	Conclusion	6

List of Figures

1	Gantt chart	2
2	Use case	3
3	Mobile app Architectural Design [?]	4
4	Entity relationship diagram	5
5	Interfaces	6

List of Tables

Listings

1 Introduction

Must personal digital assistant is the mobile app we want to develop. The app will help Must Students to check, schedule their School activities. The app will be able to allow users to search and set a notification of any ongoing School activities so that they do not miss it. It will also contain information that will guide Must Students to navigate their way around campus.

2 Problem Description

keeping up to date with the schools activities as a student has been difficult. These school activities are what time your classes are, which class are you having your lectures, when are you going to have your exams, when is the due date of your assignment, when is the closing date of school and also including which room you are located.

Must has a big campus which makes finding the right people to assist us as students with queries become an issue, for instance in the school's administration building. It is difficult for a student to locate which room or office you are looking for help. It becomes tiresome and you easily give up moving floor by floor locating your destination.

3 Justification on why it is important to solve the problem

If the students are kept up to date of the schools activities through the app we want to develop, it will help them plan and schedule their activities such as not being late for classes whether morning or afternoon classes and not waiting for the class president to tell them where the class is.

If the students are able to navigate their way around campus using the app, they will be able to know where to look for help especially when they are looking for a certain office at the administration block. The app will be able to guide them without the need of going at the reception and ask where a certain office is located for example, where is the office of a certain lecturer, department or exam office for query.

4 Timeline of our project

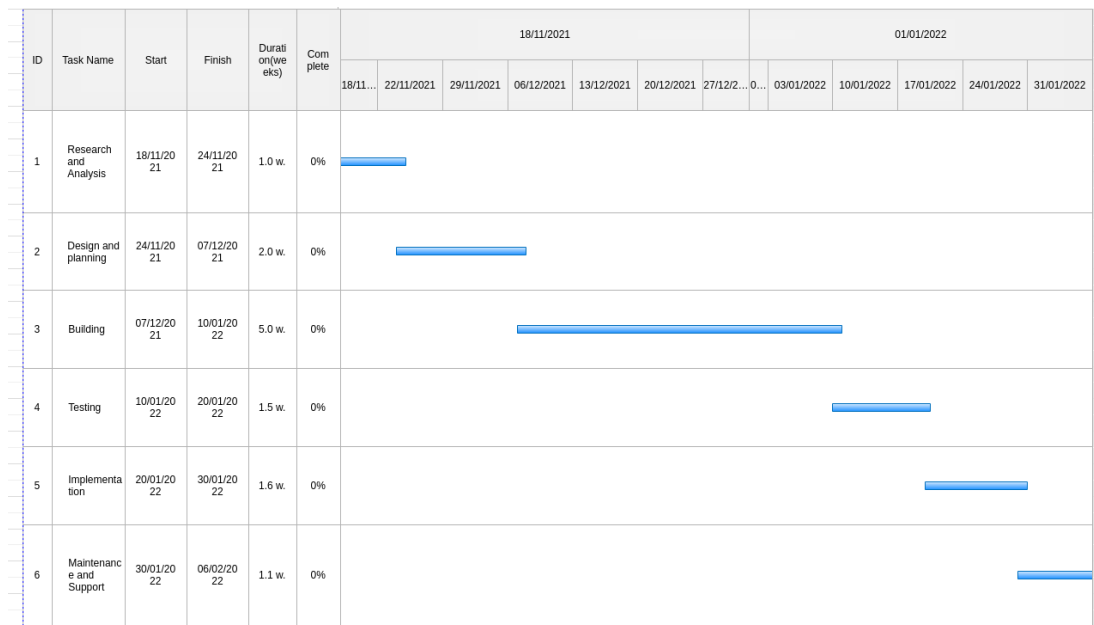


Figure 1: Gantt chart

5 Business and Technology capabilities

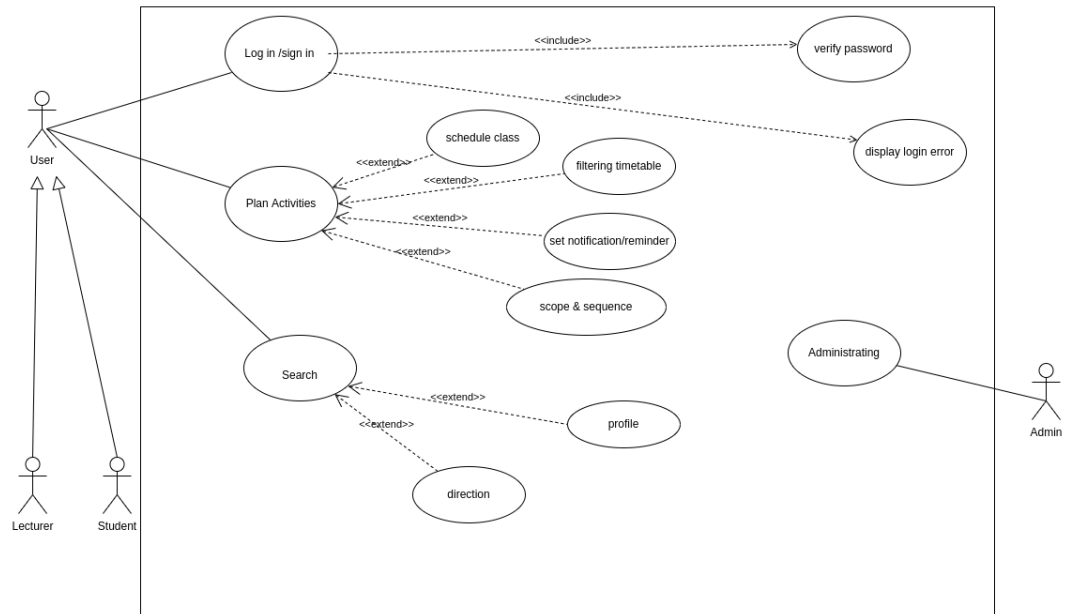


Figure 2: Use case

6 Architectural Design

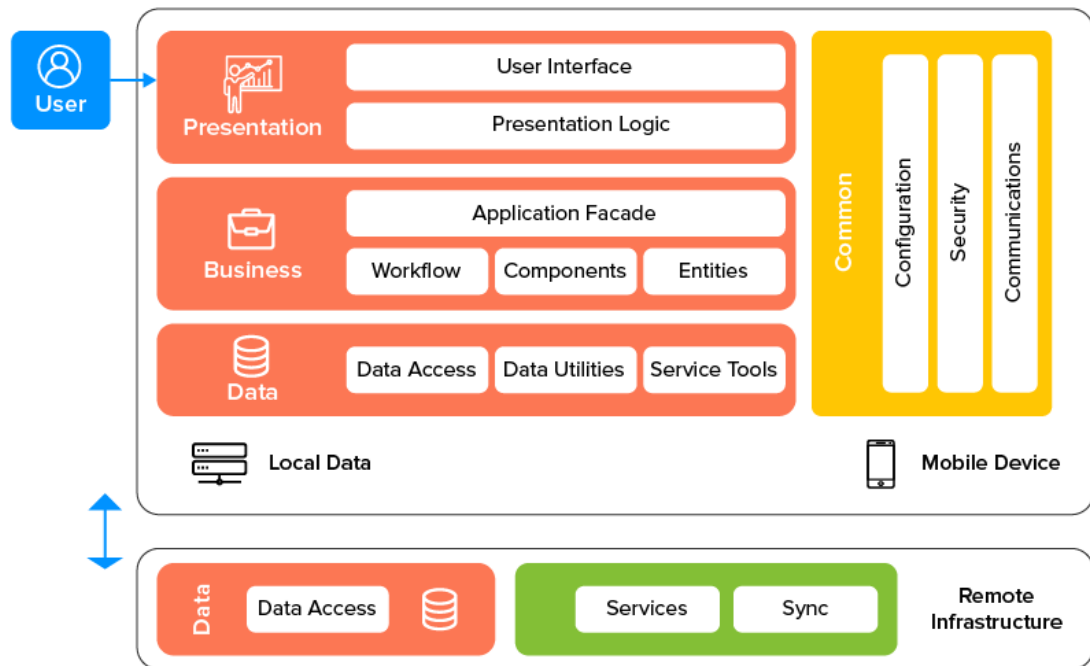


Figure 3: Mobile app Architectural Design [?]

Presentation layer -Provides an interface that allows user to interact with the system

Business layer -This layer looks at how the app will present the business to the end-users.

Data access layer -This layer focus how data will be managed when the user will be interacting with the system.This include data storage and retrieval from the database

7 Database design and database type we are going to use

We are going to use SQLite Database

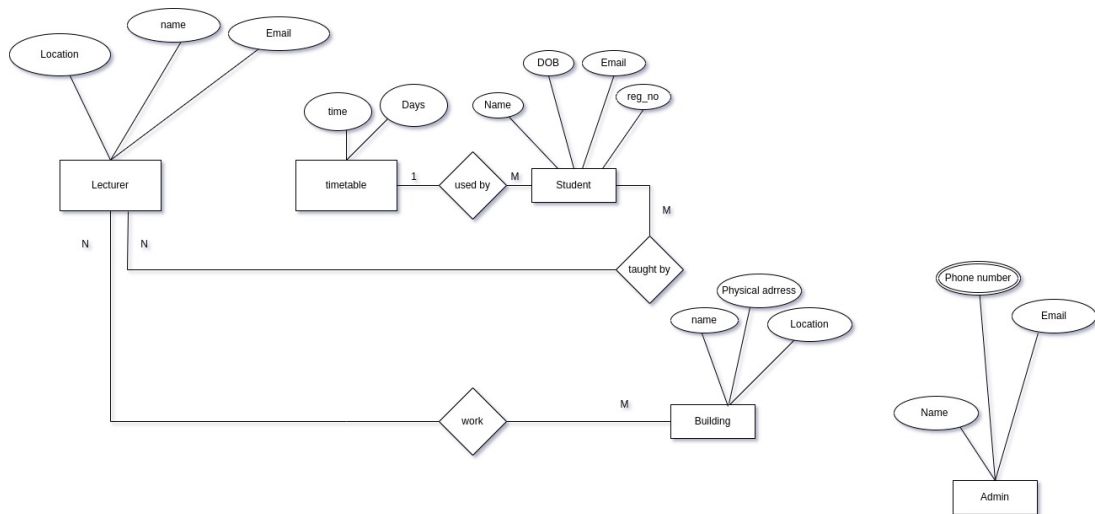


Figure 4: Entity relationship diagram

8 Implementation Business Rules

Admin will have full control of the System

Lecturer will be able to cancel a Class

Lecturer will be able to Schedule for a make up class

Student will be able to Search for Location

Student will be able to Plan School Activities

Student will be able to filter school activities

9 Integration

We are still working on how our system will integrate with other related components

10 Technology to be used

Java Language

Adroid Studio

SQLite Database

Network

Gps(Map)

11 How will System be Secured

password

Two factor Authentication

Firewall

Keeping up to date with technology

12 How will Interfaces look like

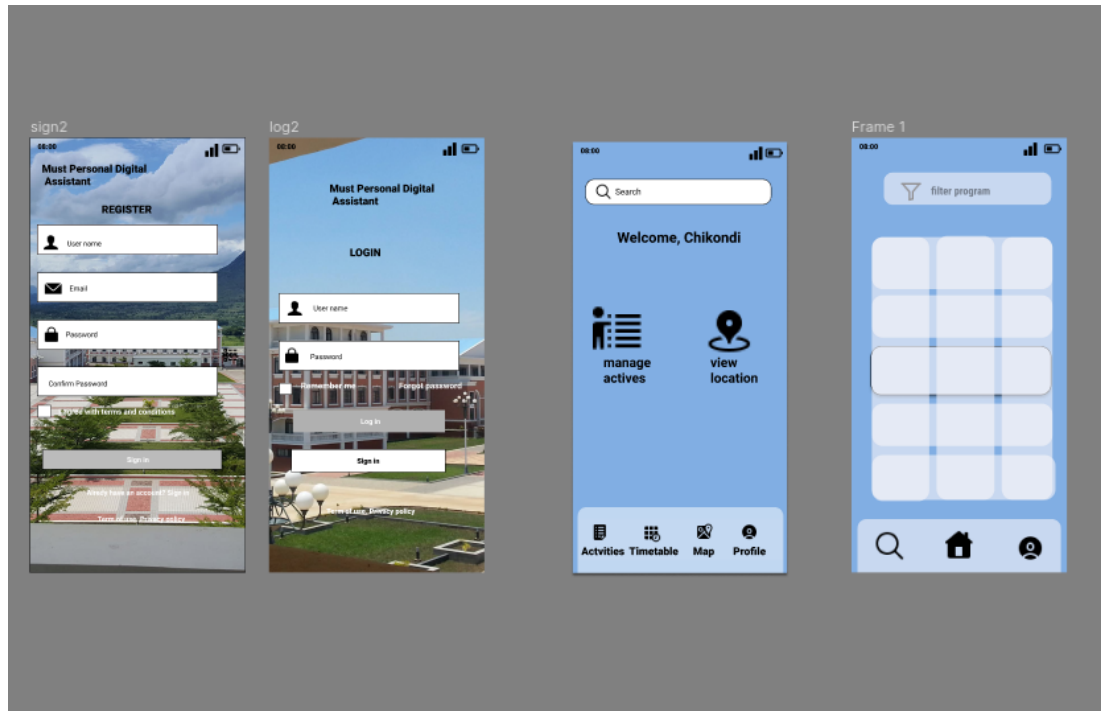


Figure 5: Interfaces

We are still working on the Interface on how our system will look like. For now we only have a home page and login and sign in interface as shown figure 5

13 Conclusion

In conclusion, we would like to design, build and implement a Mobile app that acts as a personal digital assistant to Students at Must. The app should be able to help Students at Must to find it easier to schedule, view and get a notification of an school activities without searching for a timetable in their phones or asking someone on whatsapp group about any school activities. This Mobile app should also be able to help Students navigate their way around campus easier and faster.