

**Electronic Class Rep**

Mannschaft

Computer Engineering

Software Engineering

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# 1.Introduction

## 1.1 Aims:

* Broadcast messages from lecturers, T. As, lab technician, department office in affairs relating to academics.
* Provide a live timetable for both lecturers and students.
* Provide the ability to reschedule classes and or change location of class.
* Provide the list of available classes at a particular time.
* Provide lecturers to send course material or links to these course material.

## 1.2 Platforms:

* Android
* Web

# 2. Details of the Project

## 2.1 Social Media Integration:

The app will not have social media integrated into it but will incorporate the school account i.e. using reference number, username and password.

## 2.2 Landscape Mode:

The app will can be used in landscape mode

## 2.3 Offline Mode:

The app cannot be used offline since it requires internet access to make the live timetables and free venues.

## 2.4 Server Collaboration:

The app will get the timetable, venues and user info from a server.

## 2.5 Printing features:

The app will not enable any printing features.

## 2.6 In- app purchases:

The app will not have any in-app purchases.

## 2.7 Geo- location services:

The app will not enable geo- location services

## 2.8 Push notifications:

The app will allow push notifications to enhance user interaction. Users will be notified when there is a new post on a change of class or venue and a suggestion of a new class.

# 3. Market Information

## 3.1 Target group:

This app is aimed at students and lecturers of a university (initially Kwame Nkrumah University of Science and Technology).

## 3.2 Competitors:

There are currently no known competitors.

# 4. Various Issues

## Team Mannschaft :

Five people will work on the electronic class rep app. And these five people are as follow :

* Kwaku Manu Sarpong
* Hassan Maazu
* Cyril Yamoah
* Sarah Aboagye Mensah
* Issah Jamal

5.1 Roles :

=> Kwaku Manu Sarpong is working on the backend using languages like python and the rest.

=> Hassan is also working on the front end of the project with some android and java with Sarah doing a part of it.

=> The web app version of this project is being handled by Cyril and Jamal where languages like react and the others are being used.

=> The User Interface(UI) of the entire project is in the care of Jamal.

=> Lastly, Sarah handles the database and other documentations of the project.

5.2 Project Progress:

Back end:

SQL database 🡪 Relational database keeps updated information relating to users and attributes like course of study (or course being taught by lecturer) etc.

Express.js API 🡪 Queries are made by back-end application on behalf of front end requests.

Front End:

User authentication and privilege designation.

Features and viewable bulletin boards are designated according to user attributes (i.e lecture or student, year group, courses etc.)

Android and web app (react).

Web and UI:

Lecturers’ timetables have been created. Added posts, change venue and time and the list of courses.

Database:

As at now, all needed tables for the project have been captured in the database with appropriate variables and their datatypes. Modifications will be made as new variables and tables are to be created.

1. Testing Methods:
   1. Unit testing:

* API 🡪 Various API endpoints, Token creation function
  1. Integration testing:
* Android App 🡪 modules and packages
* API 🡪 API-Database communication
* Web app 🡪 modules, packages and smoke testing

1. Software Models:
   1. Agile Scrum process model
   2. Front-end:

* Android development used Incremental model as sub-process model
* Web development used Big Bang as sub-process model
  1. Back-end:
* API design used Big Bang as sub-process model

References:

These are the various sites we visited for our project:

* [www.researchgate.net](http://www.researchgate.net/)
* [www.square.github.io/retrofit/.com](http://www.square.github.io/retrofit/.com)
* www.tutorialspoint.com
* www.MySQLdocumentation.com
* www.npmdocumentation.com