RING ME!

Group Name: THE VALUQO
Group Members:

- Chenchu Sai Krishna Kolli
- Venkata Vikas Chirumamilla
- Revanth Reddy Malreddy
- Siri Gogineni
- Sai Teja Reddy Malle

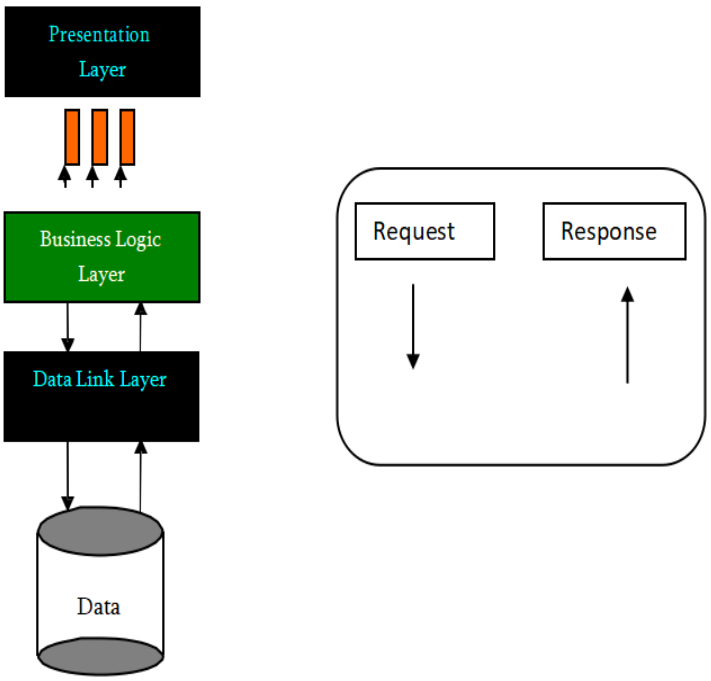
Project Description:

The Mode Changer with SMS is an android platform-based application which runs in the android mobile or in the android emulator at the development time. The purpose of the application is to change the mobile phone profile by sending SMS. The Change Mode with SMS is based on the SMS to change profile as silent to ringing & find the missing mobile phone. This application enables or disables this feature on your choice.

- Programming language: Java, Android SDK, Rest API, XML, JSON
- Development Environment: Android Studio, GitHub

We have integrated the GitHub repository in android studio to ease the process of version control system.

Architecture Design:



Minutes of Meeting details:

MOM 1:

DATE: Thursday, Aug 30, 2018
TIME: 10:45 AM
LOCATION: DP D215

- Meeting to discuss
  - Project to be taken for Group assignment.
  - Discussion on each individual project.
- Attendee Names
  - Vikas, Sai Krishna, Revanth, Siri, Sai Teja, Hynsook do.
- Attendees not present
  - -

MOM Points:

- Discussed various projects suggested by the team.
  - Sai Krishna suggested Mode changer android application, School Bus transportation project.
  - Vikas suggested Ring back tones solution project.
  - Revanth suggested online discussion forum.
  - Siri suggested Student placement chance prediction tool.
  - Sai Teja suggested Calculator tool.
- Reasons discussed on various project ideas are as follows:
  - Mode changer application: Based on Android, team wants to take it up learn android on the go.
  - School Bus transportation project: Expensive and infrastructure needed.
  - Ring back tones solution project: Not much GUI.
  - Online discussion forum: based on PHP (very old).
  - Student placement chance prediction tool: No GUI included, it's an algorithm.
  - Calculator tool: This is basic tool and not much GUI based application.
- Finally, we are going with Mode changer android application.

MOM 2:

DATE: Wednesday, Sep 12, 2018
TIME: 10:00 AM
LOCATION: Willis Library

- Meeting to discuss
  - Preparation and review of Team deliverable1.
  - Preparation and review of Presentation for class on Sep 13.
  - Training on Android by Sai Krishna.
- Attendee Names
  - Vikas, Sai Krishna, Revanth, Siri, Sai Teja.
- Attendees not present
  - -

MOM Points:

- Discussed various points on the deliverable 1 document and have shared the work load.
- Each individual team member has agreed to work on their presentation slides.
- By this MOM, everyone is clear with their roles and Sai Krishna has started small training on Android.
- By this MOM, we are successful in identifying various risk involved in the project and its counter measures.

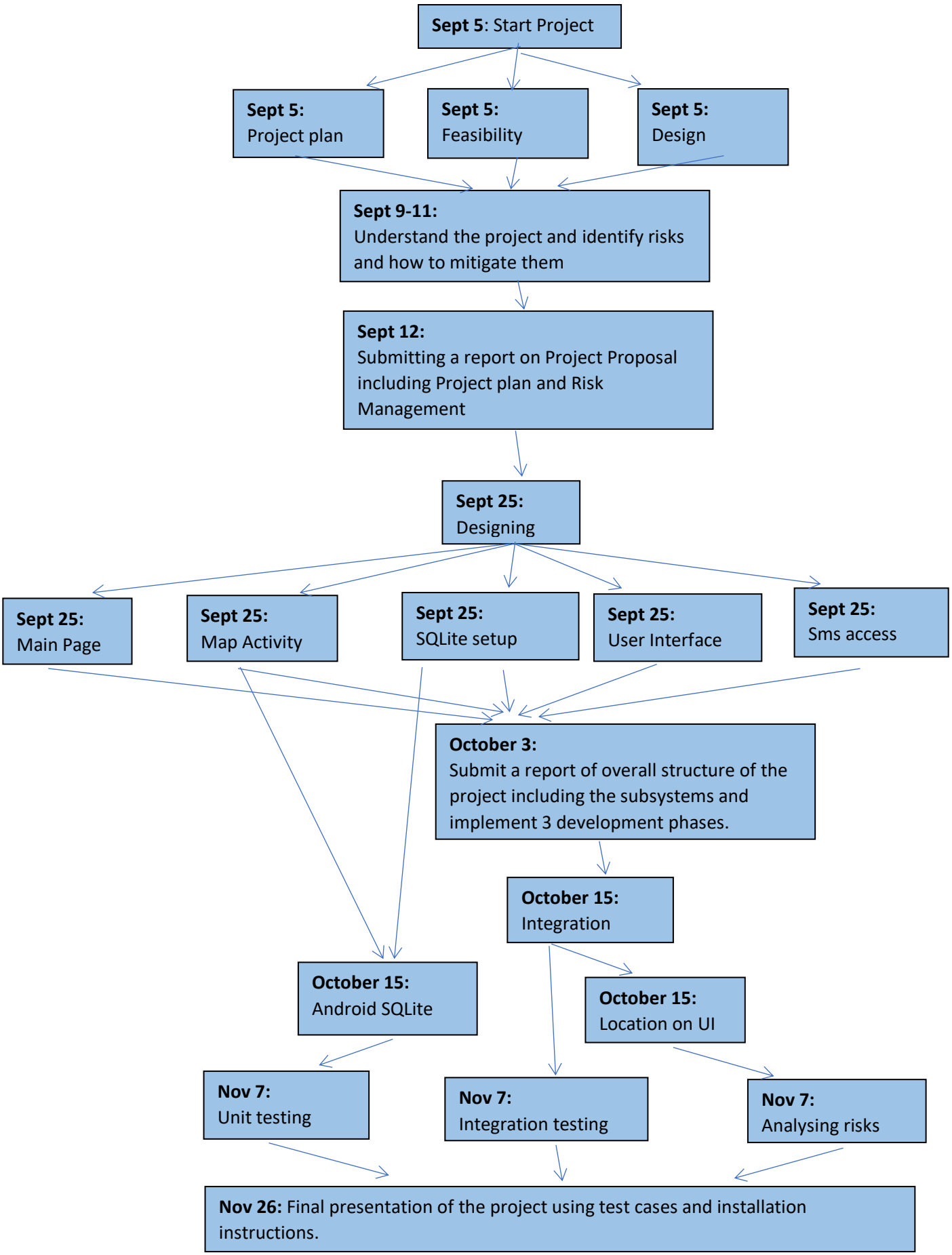
The other minutes of meeting are clearly specified in the GITHUB directory under MOM Reports folder.

PERT CHART:

PERT stands for Project Evaluation and Review Technique.
We used PERT CHART here to represent our plan and implementation of our project. We use this to track progress of development of our project RING ME.
It helps us to track the status of our project. Since this is the initial stage we have provided abstract details about the complete design. Later, if there are delays in any step, it may delay the completion of the project also.

The below PERT CHART shows the entire schedule of our project RING ME

(Contd.)



PERT CHART for RING ME project

Project Architecture Overview

There are 3 main entities involved in this application

- Users' App – acts as the receiver
- SQLite – Database to store the entries.

User's App: It acts as a receiver. It always fetches details from the carrier messages and searches for the keywords which are specified. Once both the keywords are matched, then the alert mode of the phone is changed immediately to whatever specified.

SQLite: It is mainly used to store the keywords and the history of modification of keywords. This is also used to maintain a record of the mode changes that occur.

Risk Management

Generic risks:

1. Lack of expertise:

As with any software development project, there are many risks involved in each area. The primary issue is that most of team members having inexperience with the current programming environment. All the team members may not have Android experience. Additionally, the database system used, SQLite, is new to all the group members. Hence this acts as a huge learning curve in both areas that may create unexpected delays and issues during development. To mitigate this risk, we are planning to assign the bulk of the early work in Android to the group members with more experience working with it, while leaving more general Java programming to the other developers. As SQLite is new to the entire development team, two members of the team will be involved in the initial setup and will assist the other three group members after they have a better understanding of this.

2. Delay of project:

This risk is common with all software development projects. There is always a risk that the project will not be finished within the desired timeframe. To accomplish all the phases like initial planning, development, testing, and bug resolution, we have to keep track of the timeframe. The focus from the start will be on creating a basic core functionality in addition to security of the application. As time permits, optional features will be included with the application, where the necessity of each feature will be decided early on in the project's development.

Project specific risks:

1. Keyword security:

The keywords which we specified to change the Mode must be confidential. To overcome this risk, we are allowing the user to configure it manually whenever he feels to do. Also, it is necessary that he doesn't share the keyword with anyone.

2. Integration of database:

The keywords should be properly stored into the database and the updated values (i.e., Keywords) must be stored properly.

3. Permissions:

The user must allow permissions for accessing the default messaging application. Only then our application can be able to record the keywords and changer the alert mode of the phone.

Team Members Roles and Responsibilities:

1. **CHENCHU SAI KRISHNA KOLLI (SYSTEM ARCHITECT):** Represent technical team to program managers and executive leadership. Communicate technical needs, opportunities and constraints to program managers and executive leadership.

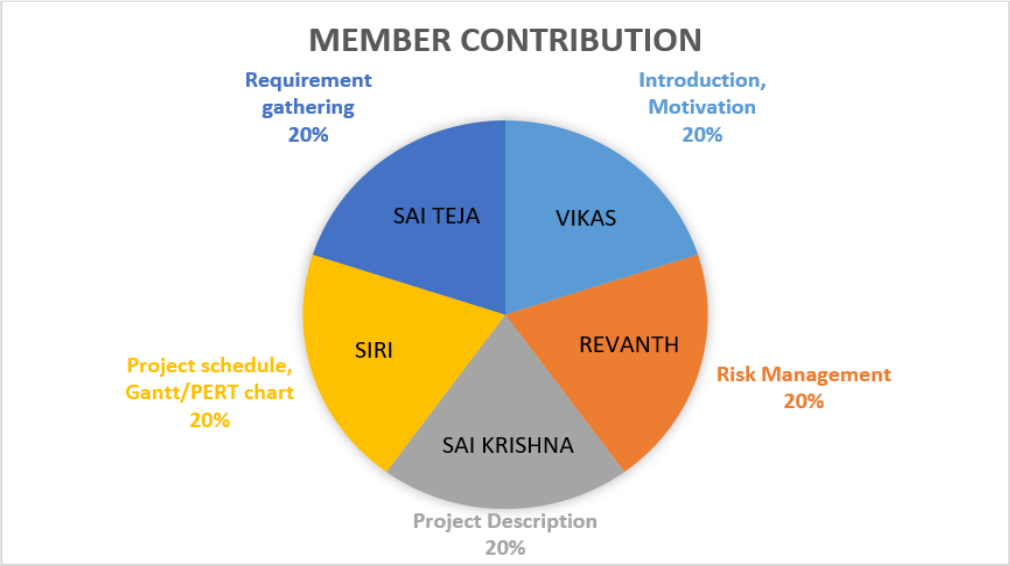
2. **VENKATA VIKAS CHIRUMAMILLA (TEAM LEAD):** Developing a project plan. Managing deliverables according to the plan. Lead and manage the project team. Determine the methodology used on the project. Establish a project schedule and determine each phase. Assign tasks to project team members. Regular meetings to discuss the progress of the project.

3. **REVANTH REDDY MALREDDY (DEVELOPMENT LEAD):** Help the team in development towards successful project delivery. Maintaining good coding practices and high standards of software quality. Analyse and resolve technical and application problems. Adhering to high quality development principles while delivering solutions on time.

4. **SIRI GOGINENI (QUALITY AND ASSURANCE LEAD):** Will make sure that all the aspects of the project are covered regarding integrity, security, accessibility and quality assurance. Responsible for filing all the work that is done and seeing that the project is done on time as scheduled. Making reports and conclusions in a timely manner. Update the documentation when it is revised. Check if the project document deliverables are correct or not and will update the team if any changes need to be made. Follow the project in a precise process to the conclusion and submit it in a document form.

5. **SAI TEJA MALLE (TESTING LEAD):** Building up the Testing strategies to the success of project. Defining the scope of testing within the context of each release / delivery. Applying the appropriate test measurements and metrics in the product. Planning, deploying and managing the testing effort for any given engagement.

Team Members Contribution:



Project Repository Checkout and Update Policy:

For checking out the project code, we clone the repository into our local and make the necessary changes for the respective files. After making the changes, we need to commit and push the code to the master branch and make sure that we have the latest code from the master branch in our local repository so that we don't have any conflicts. We keep track of all the updates that are made to the files through the Microsoft Teams and whatsapp messenger so that everyone is on the same line.

When we are trying to change any code or update any documentation, we first notify it in Microsoft teams, so that everyone will be updated with the modifications. This helps to avoid any conflicts of work between the team members. We also discuss the timings on when to meet and Willis library is our common meeting point.

References:

- http://developer.android.com/guide/basics/what-is- android.html
- An Engineering Approach to Computer Networks-S. Keshav, 2nd edition, Pearson education.