Report Expectations (80%)

◦ (5%) A detailed description of the software you are building
◦ (5%) A list of user groups for your software
◦ (20%) A complete set of usage scenarios for each user group documented as use case diagrams following the UML syntax
◦ (20%) A system architecture diagram documented as ER diagram, data flow diagrams and dynamic models
◦ (10%) The following (depending on the technical specifications of your project):
◦ All the UI mockups needed and any feedback you've gotten from the client to modify your design
◦ All the detailed technical specification of what will be used to build the software (e.g., programming language, database, etc.)
◦ (20%) A detailed test plan explaining the type of testing you will be doing for each feature/component, as well as when those activities will take place. For each type of tests you identify, you must provide one specific example. Note that each diagram must be explained clearly. Do not assume that the reader understands the intentions of your designs

Project Description:

The purpose of the project is to provide a reliable solution to the users for tracking their desired busses without internet using an android application. The project has two parts: Hardware and Software. COSC team is responsible for anything related to the server, development and deployment of the android application and its connection to the beacons (software side). The offline first android app (proof of concept) will show the user live location and arrival time of the bus (real-time bus schedule) in nearby bus stops. The user will get a push notification of the remaining arrival time of the subscribed bus number when he/she is in a certain range of the beacon at the bus stops. The beacons will be installed and configured on a bus/car and at bus stops by the engineering team, which create a mesh network. The application will receive the bus/car information through Bluetooth Low Energy (BLE) provided by the mesh network. If the user clicks on the push notification, it will take him/her to the app and show the live location of the bus on the map. The users will not need an account to use the application. Personal information of the users will not be asked or stored. However, their travel time and distance will be stored anonymously on device and uploaded to the cloud upon internet connection.

User Groups:

- University Students
- Retirees
- UBC Staff
- Commuters
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