# Software Engineering Project Charter CS 307

Team 13

September 12, 2014

Members: Nathan Chang

Xiaojing Ji Zilun Mai Saranyu Phusit Yao Xiao

Instructor: Professor Buster Dunsmore

### 1 Problem Statement

Purdue has a large amount of new students coming in every year. They are not familiar with the campus and are in deep need of navigation. Even though apps are available, they still have problems in finding indoor rooms, nearby restrooms, water fountains, etc. Asking from other students is one way to get the path, but we want to make it more convenient for them. Using GPS navigation is another way. But since GPS accuracy is not entirely reliable in small spaces, students have failed in many cases.

## 2 Project Objective

This project aims at providing indoor navigation, thus the following objectives will be implemented

- To provide an indoor navigation to public facilities and classrooms for the user
- To minimize the travelling time looking for the destination (possibly by calculating the shortest path or the path with fewer people)
- To show the user who on the friends list visit the building recently(optional)

#### 3 Stakeholders

- The team of developers
- The students who will use this program, mainly new students on campus or new to a building.
- State Farm if they get ownership.
- The TA that will be our project coordinator

#### 4 Deliverables

- The QR codes for the sample test building, which will be put on important corners for the indoor navigation.
- A mobile application for indoor navigation with the following features:
  - Easy to follow navigation to the classrooms and public facilities. The app will update the location based on the QR code scanned then tell the user how to go to their destinations, as well as show images of some places and maps of each floor.
  - A user friendly graphic user interface which minimizes the number of taps needed to navigate.
  - A map showing the users friends that have used our app in the building recently (optional)

#### 5 Miscellaneous

Yes, we would like a State Farm Project Owner