

User Story: As a user, I would like to see the suggestions while inputting the destination		
Tasks	Estimate time	Owner
Application shows the possible destination as an autocomplete list for the textbox	2 hours	Nathan
User Stories: As a user, I would like to see the shortest path to my destination highlighted on the map		
Tasks	Estimate time	Owner
Specify the navigation nodes and configure the database to make these nodes be able to correspond to any destination	6 hours	Yao
Create the database for the edges between all the navigation nodes	4 hours	Zilun
Apply the shortest path algorithm to find the route to the destination	4 hours	Yao
Show the path on the map screen	4 hours	Gott
User Story: As a user, I would like to have a step-by-step instructions to guide me to the destination		
Tasks	Estimate time	Owner
Automatically generate the instruction from the path between any two navigation nodes in the route	8 hours each	Yao Zilun
Automatically generate the instruction from the navigation node to the real destination	8 hours each	Zilun Nathan
Design a UI for showing the instruction on the screen	4 hours	Gott
Implement the UI and interactions for this screen	10 hours each	Gott Xiaojing
Provide the way for the user to respond whether he/she has completed each step of the instruction or not	4 hours	Zilun
User Story: As a user, I would like be able to re-input my location if I am away from the directions.		
Tasks	Estimate time	Owner
Design a screen to help user to re-figure out where	4 hours	Gott

they are		
Implement this helper screen and connect it to the existing QR-code scanner and the manual location input	8 hours	Xiaojing
Re-calculate the shortest path and restart the navigation	4 hours	Yao
User Story: As a user, I would like to have easy-to-find qr code on the wall at every corner,crossroad and entrance		
Tasks	Estimate Time	Owner
Print the qr codes out and put it on the corners and entrances of the test building	30 minutes	Nathan
User Story: As a user, I would like to be able to manipulate the map to view where I am better		
Tasks	Estimate Time	Owner
Implement scrolling the map vertically and horizontally	4 hours	Nathan
Implement zooming the map in and out.	6 hours	Nathan
User Story: As a user, I would like to have a good user experience using an app		
Tasks	Estimate time	Owner
Implement the mobile-app-like transitions between pages	8 hours each	Gott, Nathan
Design and Implement the navigation menu	3 hours each	Gott, Xiaojing
User Story: As a user, I would like to be able to communicate with people who are currently inside the building.		
Tasks	Estimate time	Owner
Design and implement the messaging screen	8 hours	Xiaojing
Show the available users inside the building	6 hours	Zilun
Allow the user to request help from the person inside the building	6 hours	Yao
Allow the user to set the status offline	2 hours	Yao

The remaining user story:

Theme, As a _____	I would like to	Need to add “if time follows”
Administrator (Building Owner)18	have an API to add destination and new map data	Yes