Milestone 1 Project Evaluation

Team Members:
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Faculty Advisor from CSE:
Dr. Phillip Chan –pkc@cs.fit.edu

Client Name:
Dr. Phillip Chan –pkc@cs.fit.edu

Affiliation: Florida Tech

Meeting Dates:

1/15/2024 at 2pm
2/2/2024 at 3pm
2/16/2024 at 3pm
Scheduled: Fridays Bi-Weekly at 3pm

Progress Milestone 1

Task	Completion	Austin	Jason	Jacqueline	Hunter	To do:
Compare and select technical tools for database, web application(front end and back end)	100%	25%	25%	25%	25%	N/A
Compare and select technical tools for code version control and testing	100%	25%	25%	25%	25%	N/A

Resolve technical challenge of how to access Florida Tech tracks account API, Google Maps/routing API, and a calendar API	75%	55%	15%	15%	15%	Implement Florida Tech email account verification
Create Requirement Document	90%	15%	55%	15%	15%	Implement Advisor Feedback
Create Design Document	90%	15%	15%	55%	15%	Implement Advisor Feedback
Create Test Plan	95%	15%	15%	15%	55%	Update for any new requirements

Discussion (at least a few sentences, ie a paragraph) of each accomplished task (and obstacles) for the current Milestone:

Task 1 (Technical Tools): The first task of the project was determining the technical tools we would use to develop the application and database for storing user information. We decided to use the Blazor framework to develop the web application and the SQLite database engine to implement the databases.

Task 2 (Code Version Control and Testing): Testing and code revision will be performed through GitHub and Visual Studio. Unit testing will be performed through bUnit, a testing library for the Blazor framework.

Task 3 (API Technical Challenges): The three main technical challenges we worked on during Milestone 1 were learning how to access Florida Tech tracks account API, Google Maps/routing API, and a calendar API. The Google Maps API and calendar API were both able to be accessed and implemented into the application at a surface level. During Milestone 1, we determined that verifying a user registers with a Florida Tech email address would be more efficient than using the Florida Tech Tracks API.

Task 4 (Requirement Document): The Requirement Document details the specific features and behaviors we plan to implement in the carpooling application. It provides an overview of the application and the functional, interface, and security requirements. The document also provides sample input and output of expected behavior for the application's features.
Task 5 (Design Document): The Design Document focuses on how users will view the application and the database design we will use to implement the requirements. Mock-ups of the application's key pages illustrate how the user may interact with the system's functionalities, such as creating their user profile or viewing their carpool group recommendations.
Task 6 (Test Plan): The Test Plan document expands upon the Requirements Document and details how each system requirement will need to be tested. The document splits these testing scenarios into functional tests and user tests. The functional tests are intended to ensure correct behavior of the application's functional requirements. User tests are used to verify that the application's user experience is working as intended.

Discussion (at least a few sentences, ie a paragraph) of contribution of each team member to the current Milestone:
Austin Phillips: My contribution to completing milestone 1 started with designing the user interface for all the user facing pages. Creating a hello world demo for both using a calendar api and Google maps api. I registered and created an account to receive a Google maps api key. For the three key documents of this section I primarily worked on the design document with a focus on the database and user interface sections.
Jason Smith: For Milestone 1, I focused on the Requirements Document, detailing the requirements we determined as a group and creating sample valid and invalid input/output scenarios for each section. I also worked on the Design Document's system architecture and Rider/Driver mock-up layouts.
Jacqueline Torres: My contribution to milestone 1 was working within the three documents. I worked with my colleagues in the development of all documents, edited, and made sure they were in the correct format for submission.
Hunter Smith: For Milestone 1 I wrote the Testing Plan document, outlining how we will test our app to not only make sure every functional requirement is met, but also make sure that users are able to use the app as effectively as possible. I also helped review other documents to ensure our project has the proper planning to develop quickly.

Task Matrix for Milestone 2

Task	Austin	Jason	Jacqueline	Hunter
Develop and test user interface for first half of user profile setup (input schedule, location, other preferences)	25%	25%	25%	25%
Develop and test second half of user profile (friendlist, privacy, user statistics…)	25%	25%	25%	25%
Develop and test database integration into the web application	25%	25%	25%	25%
Develop and test routing/map integration using assumed groups	25%	25%	25%	25%

Discussion of each planned task for the next Milestone:

Task 1: We will begin developing and testing the first half of the user interface for user profile setup. The user profile is crucial to our application because our matching algorithm will take into account the users preferences, schedule, and location.

Task 2: We will continue developing and testing the user profile with the second half of information and preferences set by the user. This second half focuses on implementing the friendlist, privacy settings regarding users' address and phone number, and user carpooling statistics.

Task 3: We will develop and integrate the database needed to store the information provided by the user during profile setup. This is a necessary step before we can start developing the recommendation algorithm, as it is based on the user's information.

Task 4: Along with developing the user's profile setup and database, we will begin developing the route creation and map integration for Drivers on the application. Drivers will need to receive a link with their created trip route and Riders must be able to view the Driver's location on a map integrated in the application.

Date(s) of meeting(s) with Client during the current milestone:

- 1/15/2024
- 2/2/2024
- 2/16/2024

Client feedback on the current milestone

- See Faculty Advisor Feedback below

Date(s) of meeting(s) with Faculty Advisor during the current milestone:

- 1/15/2024
- 2/2/2024
- 2/16/2024

Faculty Advisor feedback on each task for the current Milestone

Requirement Document:

3.1. Profile

* add: friend list (view, request to add (accept/deny), delete)
* rating: add reviews
* Provide Carpooling Preferences-- use a bullet to highlight: default is no preference
* add a section on Privacy:
    a. phone
    b. Address

    visible to:
    friends (yes/no; default is yes),
    driver of a trip (yes/no; default is yes),
    fellow riders of a trip (yes/no; default is no)

- Sensitive information (address, phone number, …)
- Select who it is visible to (Driver, friends only, other group members…)
- Split up for each specific info (Ex: may provide phone number, but not address)
- Set defaults

3.2 Determining the Driver of a Trip
    appointed -> recommended

3.3 Form a group manually
    add: View friend list

Before/During/After the "Ride" -> "Trip" (from the driver's perspective, it's not a ride)

Design Document:

2. System Architecture

* "SignalR" ?

Main Modules: (refer to req doc)

- Profile (accessed by user)
- Group Formation
- Before/During/After Trips
- Recommendations (accessed by system)

Phone	Server		API Servers
	Profile		Map API
User	Group Formation	Group Recommendations	Calendar API
	Before/During/After Trips		Database API

- User arrow to all three to the right
- Profile arrow to group recommendations
- Group recommendations arrow to group formation
- Group formation arrow to before/During/After Trips

3. User interface

2.6.1. Driver Page: show a route on a map from driver's location to multiple pick-up locations and finally FIT (you can do that on google map, and copy and paste to show what it might look like)

3.6.2. Rider Page: show car location and pickup location (should be two locations)

- add a screen for confirming getting into the correct car: car photo/manufacturer/model/color/license, driver name/photo,
  Map Displays: Car icon (Driver) and People Icon (icon for Rider pick-up locations)

4. Add ER (entity-relationship) diagram

Test Document

Before/During/After the "Ride" -> "Trip" (from the driver's perspective, it's not a ride)

Faculty Advisor Signature: _____ Date: _____