Movin Maps System Requirements Document

Project Title: MBTA Transit App for Movin Maps

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Preface

Version	Date	Description
1	2/28/2023	Starting template.
2	3/15/2023	Initial version.

Introduction

The MBTA offers various transportation methods to the Massachusetts area through services such as the subway system, commuter rail, bus, and ferry routes. These transportation methods can be difficult to navigate. The MBTA Live Map offers users real-time locations of transport through a GUI to make it easier to follow and plan routes. Users will be able to store their favorite routes on their account, filter the GUI to show specific routes or methods of transportation, and be recommended routes relative to their location. The status will display arrivals and alerts will update with delays.

Glossary

Term	Definition
Card	provides a flexible and extensible content container with multiple variants and options.
GPS	Global Positioning System. U.S.-owned utility that provides users with positioning, navigation, and timing (PNT) services.
Landing Page	standalone page designed to display information to the user
Drop Down Menu	toggleable, contextual overlays for displaying lists of links
Route(s)	a way or course taken in getting from a starting point to a destination.
drop-up	toggleable, contextual overlays for displaying lists of links
Pop-up Menu	Graphical User Interface of menu that opens on top of a background
Nav Bar	Box with input buttons to access other features and navigate to other pages
Transit	Process of moving to another location through a system.

User Requirements

Give the link to your user requirements document.
https://docs.google.com/document/d/1xCegMIfzEpj_b01I4p38JF_idYgcF39AfMweS4llfp4/edit?usp=sharing

System Requirements

Following a numbering scheme very similar (possibly the same) as your User Requirements document, expand the requirements to be much more specific.

1.1. Upon opening the application, a card will be prompted asking the user to enter their current address or location.

1.2 Users will enter information into fields address, city, and zip and confirm input by pressing the submit button.

1.3 To update location a pop-up menu will be accessible by selecting the settings icon in the bottom right

1.4. Text boxes for fields address, city, and zip with submit button will be displayed.

2.1. The home landing page will display a map showing the user's location with a blue circle. There is a nav bar located at the bottom below the map with buttons to navigate the different features of the page.

2.2. The map will display all stops along the route.

2.3. Stops are searchable in the search bar and are represented by an icon when viewing the map.

2.4. There will be + and - icons that allow the user to zoom in and out of the map.

3.1. The user will be prompted to select transit via a pop-up menu after entering the current location.

3.2. Unique icons and names will represent transits.

3.3. There will be a train, subway, bus, and ferry icon.

3.4. Selecting an icon will display its routes.

3.5. Transit can be updated by selecting the icon in the bottom left of the nav bar. A pop-up menu will be displayed showing buttons for each transit.

4.1 After selecting transit, nearby routes will be highlighted and displayed on the GUI

4.2. Routes will be differentiated by name and color.

4.3. The location of the transit will update and be displayed with a 1ms response time.

4.4. Current location of transit is represented by a unique icon.

5.1 To select a specified route for the transit there is a pop-up menu that is accessible in the center of the nav bar.

5.2. By default all routes are displayed

5.3. Registered Users can favorite routes.

5.4. Favorited routes will be displayed at the top of the route menu.

6.1. Alerts for delays of selected transit will temporarily display in the top left corner for 10 seconds.

6.2. In the nav bar there will be a bell icon that when selected will display a pop-up menu for delays. It will show the history of delay alerts in case the user missed the temporary notification.

7.1. Setting is accessed by the gear button located in the bottom right of the navbar to open up a pop-up menu

7.2. Users will be redirected and prompted to log in or sign up for an account

7.3. Registered users will be given access to the settings pop-up menu.

7.4. The pop-up menu will display favorite/saved routes, and the sign-out button.

7.5. User can customize their location on the map by selecting a preferred icon in the settings menu.

8.1. Users will be redirected to the login/Signup page when accessing settings with an unregistered user.

- **8.2. Register user page**
  - A card will be displayed and the user will be asked for the following fields
    - Enter email address
      - The email address is required for account verification.
      - No email address can have more than one account associated to it
    - Enter first and last name
      - Cannot contain special characters !@#$ ect.
      - Cannot contain numbers
    - Create password
      - Password must be between 8-12 characters.
      - Must be one uppercase character
      - Must be one special character
      - Password cannot contain user name
- **8.3. Login page**
  - Account must first have a verified Email address.
  - A card will be displayed in the center of the screen asking for the following:
    - The user will be asked to enter an email address.
    - The user will be asked to enter a password.
      - Password must match to password associated with the verified email address
      - Password must be between 8-12 characters.
      - Must be one uppercase character
      - Must be one special character
      - Password cannot contain user name
    - Include an optional checkbox to save login information.
      - If checkbook has been marked the users email address will be remembered and auto-filled for the user
    - Include forgot password
      - User will be redirected to a Create new password page
        - The user will be asked to enter their email address where a link will be sent to reset users password.
    - Include Create account feature

- ● User will be redirected to the register user page
  - ■ Include Login button
    - ● Verified valid email address
    - ● Varifies password