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GitHub Username: totallynotcory

MBTA Times

Description

Check out when your next bus/next subway is coming.
Save your commute and check it when you need to.

Intended User

Travellers in the Greater Boston Area.

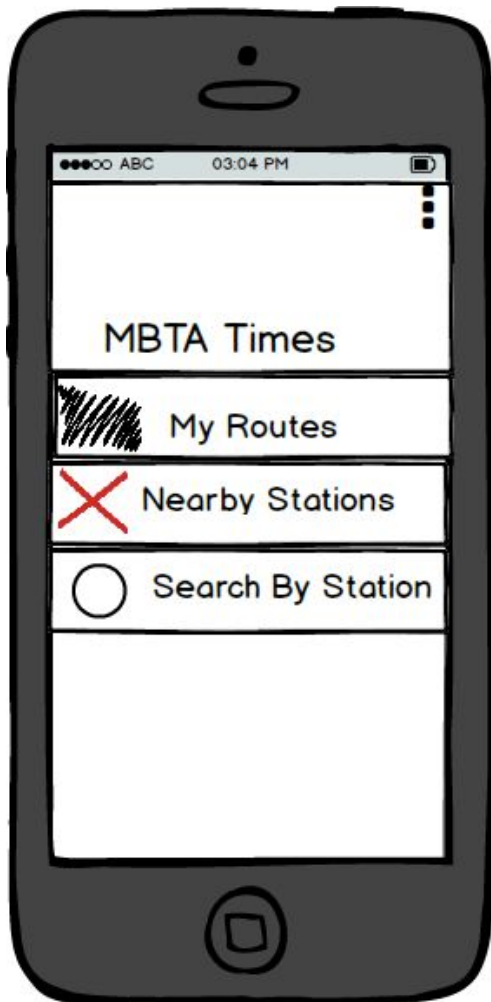
Features

This app will be used to find bus/subway/train times in the Boston area.

- Saves routes
- Looks up bus and subway information
- Checks train schedules

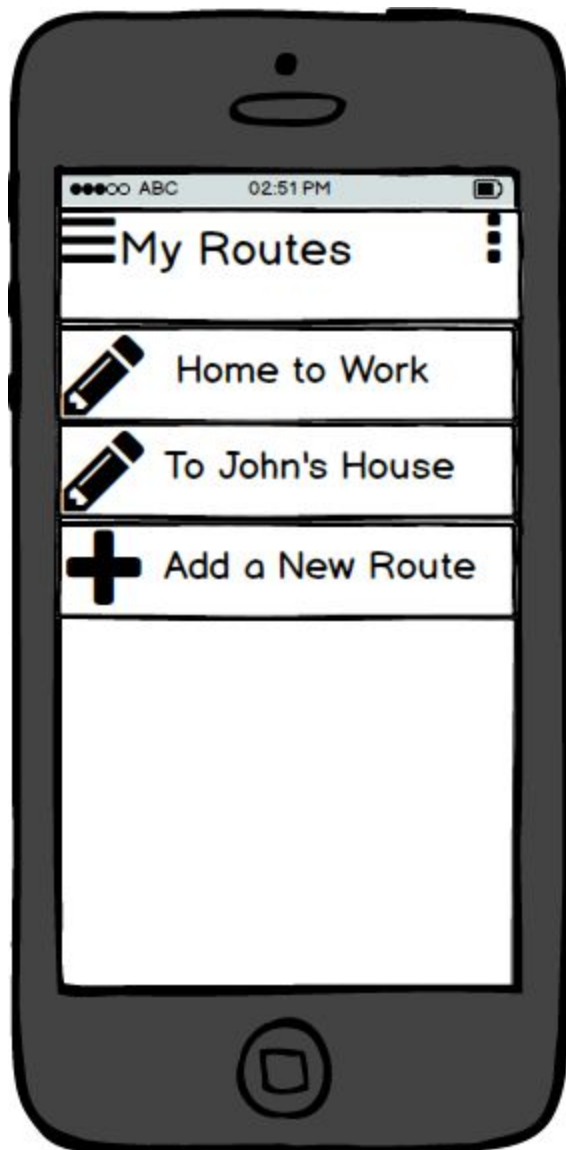
User Interface Mocks

Home Screen



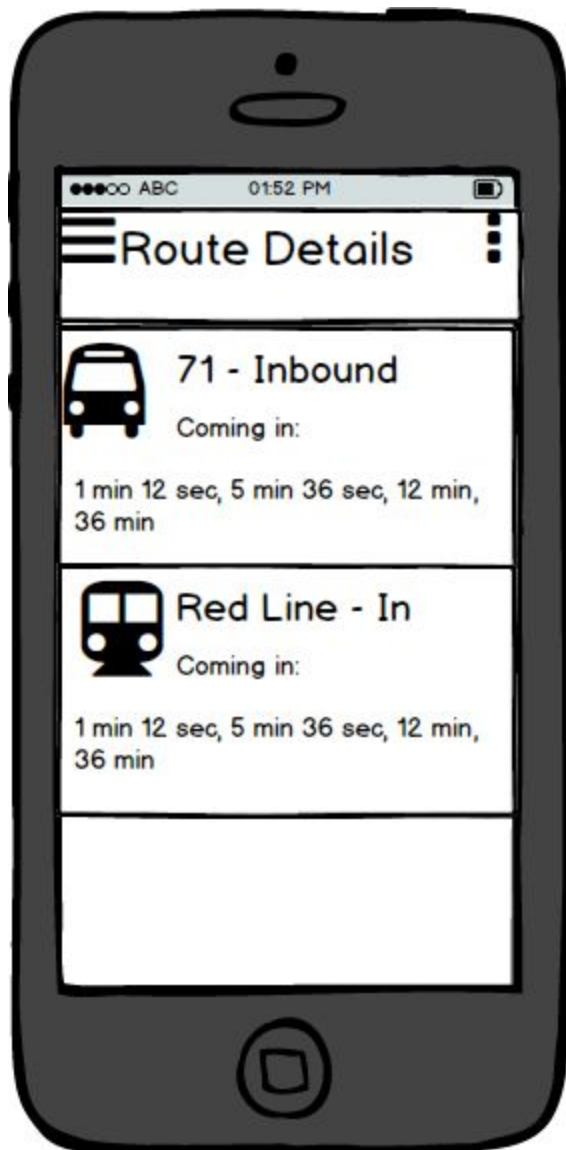
The home screen will be a simple navigation for the users. For the first run of functionality, there will be options to have 'Routes', which contain a user's saved route, to search by location, which will find nearby stations according to a user's current location, and search by station, where a user can look up to a specific station.

My Routes



The My Routes page will be a place to access a user's saved routes or create new ones. A tap on the Pencil icon will allow a user to edit a route through a modified Add Route page. A tap on the title ('Home to Work' and 'To John's House') will bring a user to the Route Details page. Tapping on Add a New Route will take a user to the Add Route page.

Route Details



The Route Details page will contain a list of a user's saved route details, with times of the next coming bus/subway/train.

Add Route

ABC 01:52 PM

Add Route

1. 71 - Outbound

2. Mode ▼

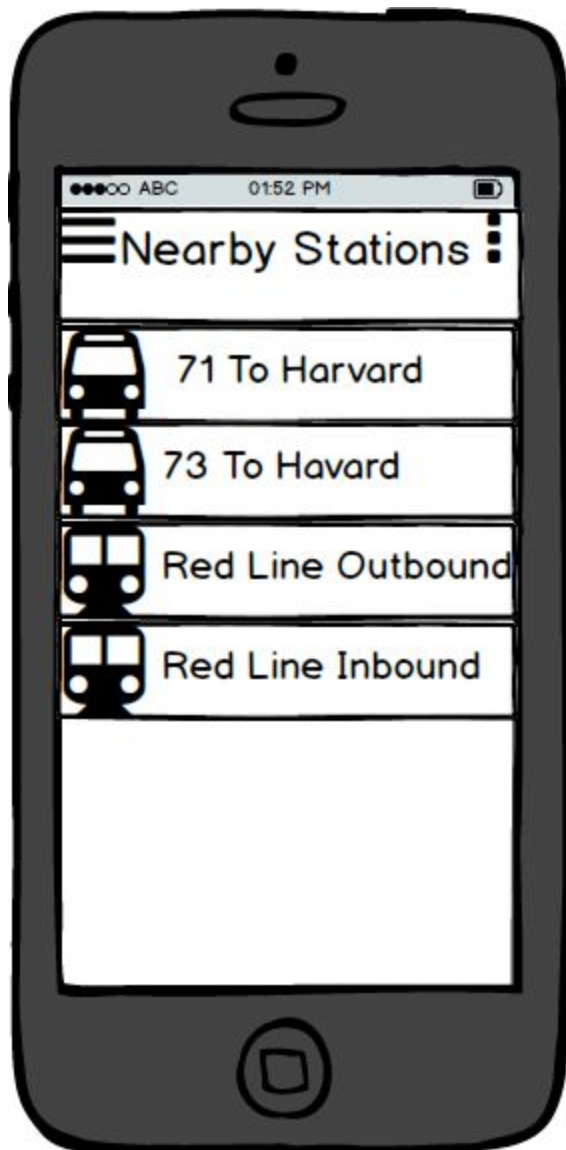
Number / Line ▼

Direction ▼

Add

The Add Route page will allow a user to create a route by search for bus/subway/trains.

Nearby Stations



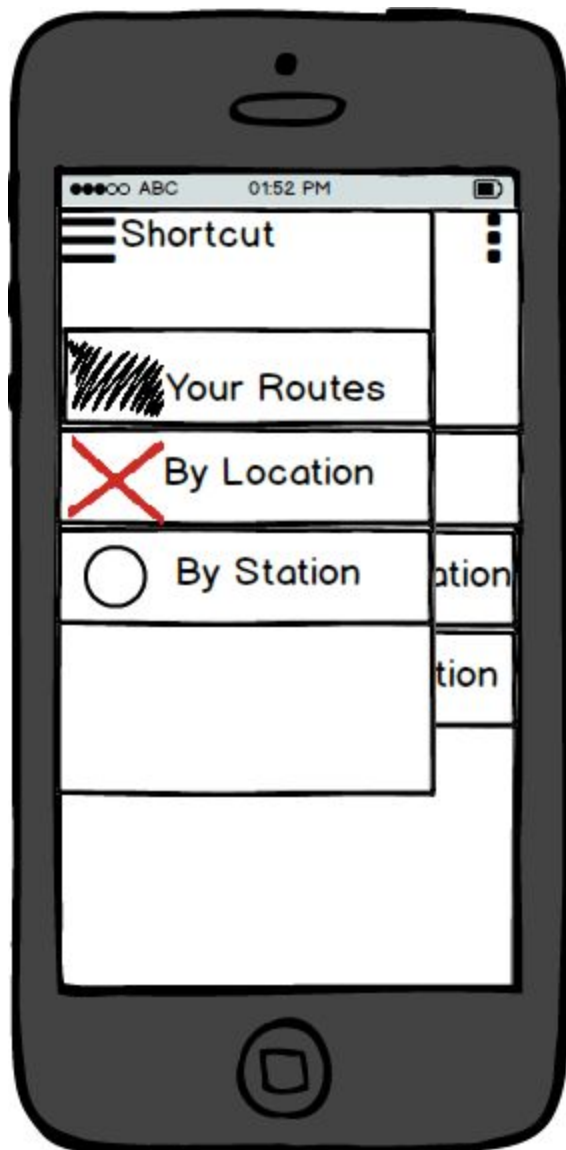
The Nearby Stations page will use a user's location to find stations nearby. Clicking on any of these will bring a user to the Route Details page for that bus/subway/train.

Search Stations



The Search Stations page will allow a user to look up to bus/subways/trains. Clicking search will bring a user to the Route Details page.

Navigation Menu



For all pages except the starting page, a navigation drawer will be available to the user to go to any other page in the app.

Key Considerations

How will your app handle data persistence?

It will be necessary to build a Content Provider to store the Routes a user makes.

Describe any corner cases in the UX.

I don't foresee any corner cases in the UX.

Describe any libraries you'll be using and share your reasoning for including them.

RxJava - For starting several data retrieval tasks at the same time

Picasso - For image caching

Butterknife - For data binding

Next Steps: Required Tasks

Task 1: Project Setup

In the initial setup, first I'll need to start a new project in Android Studio. Then, I will:

- Configure libraries
- Add app color and theme
- Setup git with this project

Task 2: Implement UI for Each Activity and Fragment

- Build UI for MainActivity
- Build UI for My Routes
- Build UI for Route Details
- Build UI for Nearby Station
- Build UI for Search Station (with a Search fragment)
- Build UI for Add Routes (use Search fragment)

Task 3: Implement API Data Retrieval

- Get a key from the MBTA API
- Write tests for data retrieval
- Setup a task to take arguments and retrieve data from the MBTA API
- For each page that will need to retrieve data, setup the call to call the data retrieval task

Task 4: Setup Content Provider for Data Persistence

- Plan out appropriate tables
- Setup tests
- Write out the Content Provider
- Connect the My Routes page to the data

Task 5: Create a Widget

- Create a widget to launch into a saved route for users