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Bhopal BRTS

Description

We love MY BUS the local Transport facility for beautiful Bhopal . It helps to reduces traffic as well as pollution but only problem is that we do not have any public information system at Bus Stops to know which Bus we need to ride for our destination . To solve just that problem we have created this application which helps you in finding the bus no for your destination as well as various information related to the operation of My Bus .

Intended User

This app is local to My beautiful city Bhopal . The travelers of MY BUS transport system are the intended user for this app .

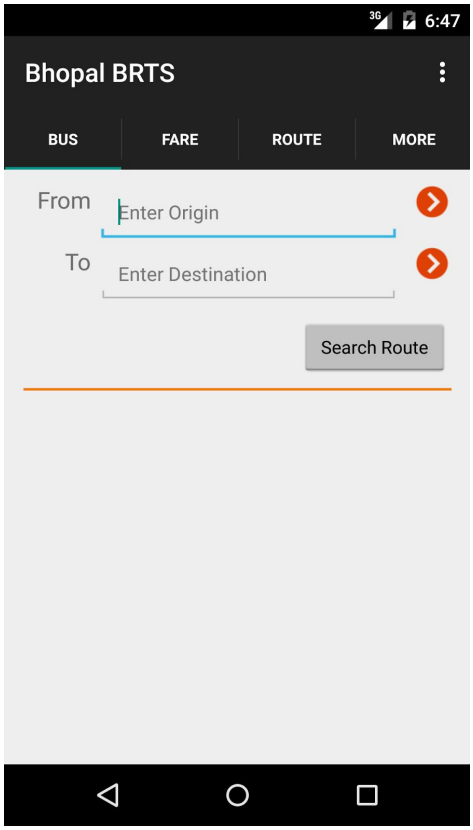
Features

- Find the route of Buses
- Calculate the fare for journey
- Get a Map of your journey
- Emergency nos just in case

User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 1 Home Screen



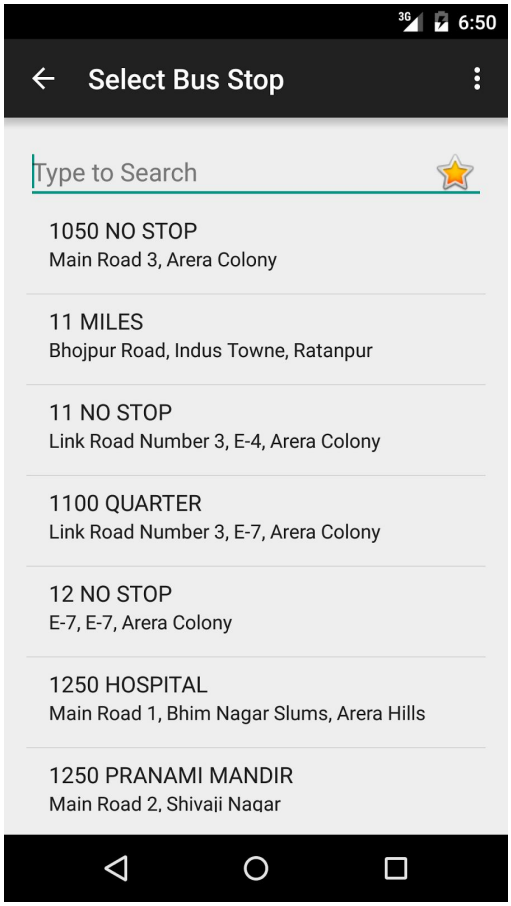
This will be the home screen where user has options to perform main functionality of the app at the front and also have ease to switch to another function with just a swipe . I have divided my functionality to be developed as different Fragment and will implement them with Tab navigation .

In This user will provide the origin and destination of the journey and then app will show option like the screen 4 is showing .

Screen 2 Route Screen

In this screen I will list all the bus route that is offered by the MyBus service . On click of any of the route listed here will bring a another activity with in detail route and a Google Maps view of the route .

Screen 3 Select Bus Stop



This screen will be used to provide a way to user to select a bus stop from the list if he did not know the name or for any other reason . There will also be a button which will auto detect the user location and will give input of the nearest station from there .

Screen 4 List optins

This is Bus fragment which will list out all the possible bus no that a user can ride to go to the destination he provided .

Screen 5 Route Detail

After selecting any one of the option from above screen the app will show this route detail screen where user will get detail information about the route . In this activity user will also have option to see the Map of the route .

Key Considerations

How will your app handle data persistence?

My app will have a sqlite based database . This database will be queried using Content Provider.

Describe any corner cases in the UX.

If User hit back button or press Home key the app will save the current state of app in Shared Preference and when user will come back we will provide user the state in which it left the app .

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

The app in its current form will not require any external libraries .

Describe how you will implement Google Play Services.

I will use Google Map and Location services to fetch the current location of the user . The app will also show the route map and hence it require the Google Maps .

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

- Configure libraries
- Collect the data from MyBus office
- Make a sqlite database show that later we can use it in application .
- Get api key for required Google services
- Get the assets require in the application

If it helps, imagine you are describing these tasks to a friend who wants to follow along and build this app with you.

Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

- Build UI for MainActivity
- Build UI for Bus fragment
- Build UI for Fare fragment
- Build Ui for Route fragment
- Build Ui for Route Detail Activity
- Build Ui for About us

Task 3: Logic to search the route

Make an algorithm to search the optimise route for the user between two bus stations . optimisation should be based on fare , direct / indirect buses and nearest stops.

- Logic to calculate the Fare
- Logic to find route if no direct bus is possible between two stops .

Task 4: Implement Route Detail Activity

Show the detail of the route user has selected . Pass the detail from Main Activity to Detail Activity and use this to provide detail information about the route user has selected .

Describe the next task. List the subtasks. For example:

- Create layout

- Implement the logic to show stops in between and there distances.
- Also create a fragment to implement Google Map of the Route .

Task 5: Implement the Route Activity

Implement the Route Activity where user will get a list of route available to user . User should be able to select a route and see a detail about the route.

Describe the next task. List the subtasks. For example:

- Create layout
- List the route with their starting and ending points
- Implement Google Map

Task 5: Implement Content Provider

Implement a content provider which will be able to provide the data whenever app query about it . Content Provider should use the built in sqlite dictionary as their data source .

Task 6: Debug the app

Test the application whenever you complete a step or function . If any error arises debug the app to make it function smooth .