SAN JOSÉ STATE UNIVERSITY

CMPE277: Smartphone Application Development

KARTISIAN - ANDROID APPLICATION

Submitted By

Mamtha Lakshminarasimhan
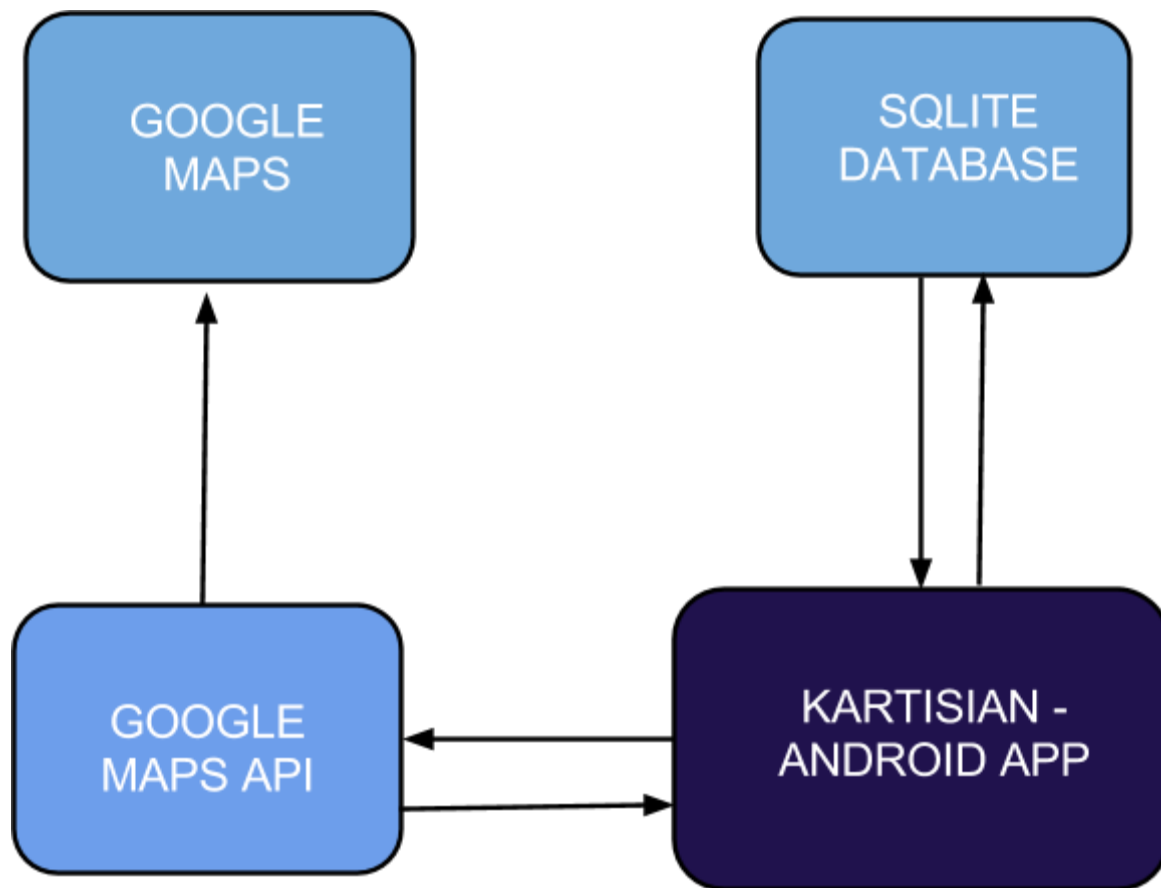
Student ID: 008686093

Submitted To

Prof. Chandrasekhar Vuppalapati

GOAL OF APPLICATION:

This application aims at providing a solution for easy navigation for frequently visited or other places, a user would like to bookmark, so as to ease the process of getting driving directions through Google Maps application. This is useful for people who use GPS navigation very often because they do not have to go through the hassle of typing in a destination address each time they look for directions.

HIGH LEVEL ARCHITECTURE:

```
  ┌──────────────┐                    ┌──────────────┐
  │   GOOGLE     │                    │   SQLITE     │
  │    MAPS      │                    │  DATABASE    │
  └──────────────┘                    └──────────────┘
         ▲                               │     ▲
         │                               ▼     │
  ┌──────────────┐                    ┌──────────────┐
  │   GOOGLE     │ ◄───────────────── │  KARTISIAN - │
  │   MAPS API   │ ─────────────────► │ ANDROID APP  │
  └──────────────┘                    └──────────────┘
```

ANDROID TECHNIQUES

This application provides options to bookmark a user's favorite / frequently used addresses using two methods, namely, by address and by location. When a user saves a location by address, the address of a location is asked to be entered and then saved in a SQLite database where all the address components are merged into one single concatenated address line. When a user chooses to save a location by current location, the Google Maps API uses the GPS coordinates for the current location which is in turn saved in the SQLite database, but by using the using GPS coordinates this time instead of the address. These locations thus saved can be accessed in a spinner. When the user chooses a location and clicks on the Navigate button, an intent is used to open the Google Maps application where the source address is set to current location and the destination address is set to location chosen by the user from the Kartisian App.

TESTING

This application has been tested manually by providing sample input parameters. The screenshots below illustrate the testing sequence.
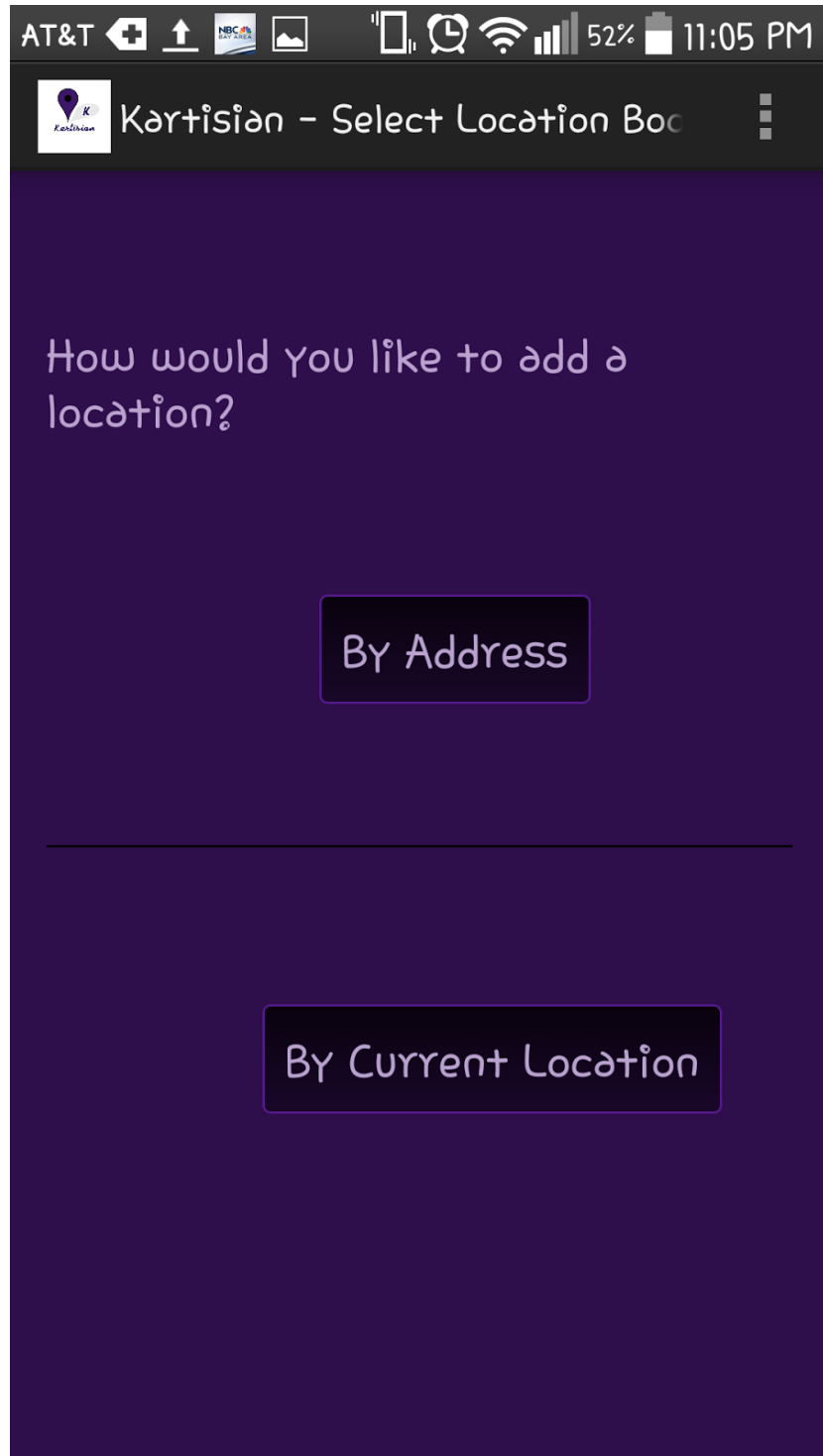
KARTISIAN SPLASH SCREEN

MAIN ACTIVITY

Kartisian

Where are we going today?

Home

Home

Navigate
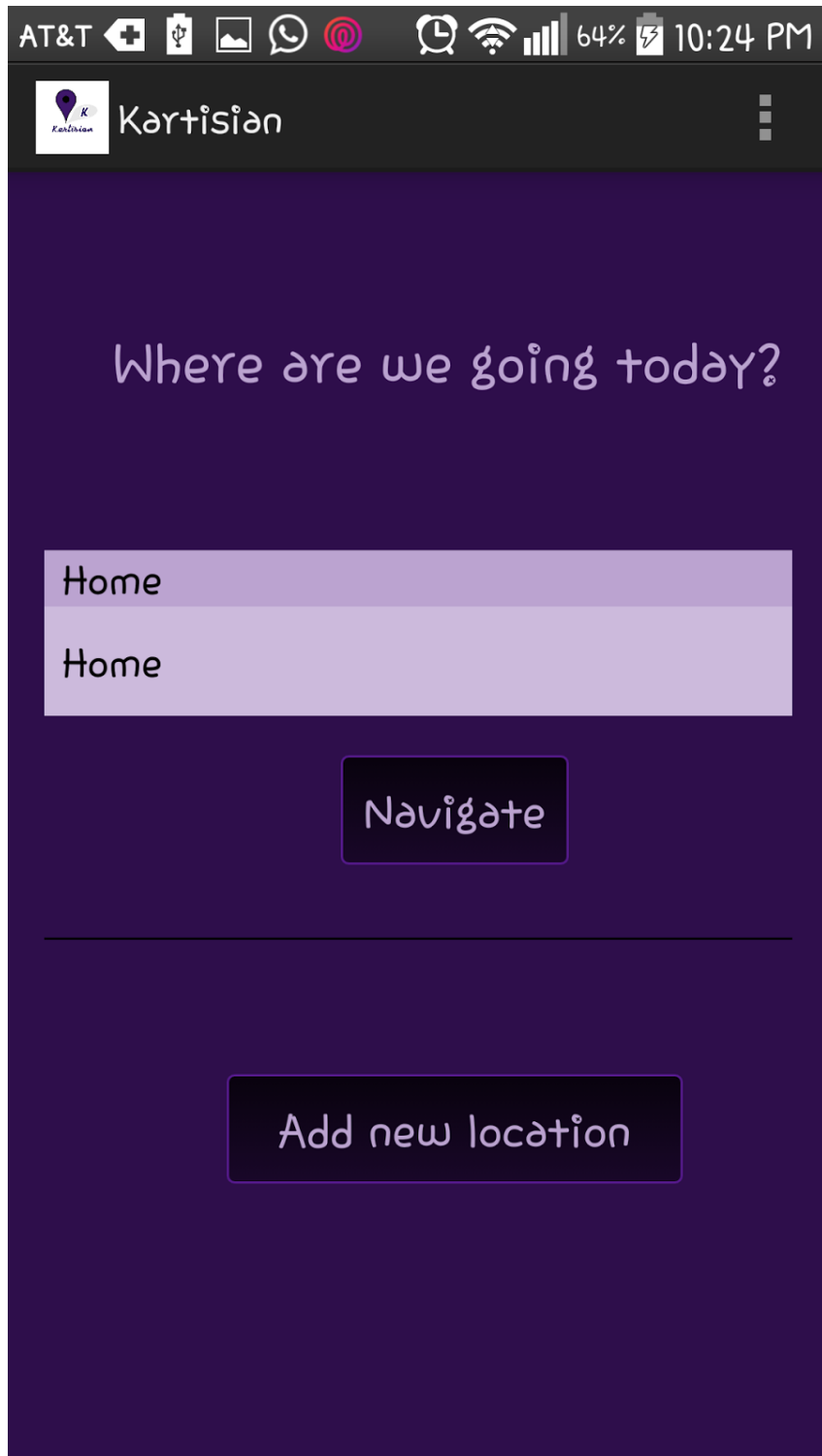
Add new location

ADD NEW LOCATION OPTIONS

Kartisian – Select Location Boc ⋮

How would you like to add a location?

By Address

By Current Location

Bookmarking Location By Address

AT&T 64% 10:24 PM

Kartisian – Bookmark an Addre ⋮

Enter Favorite Location by address

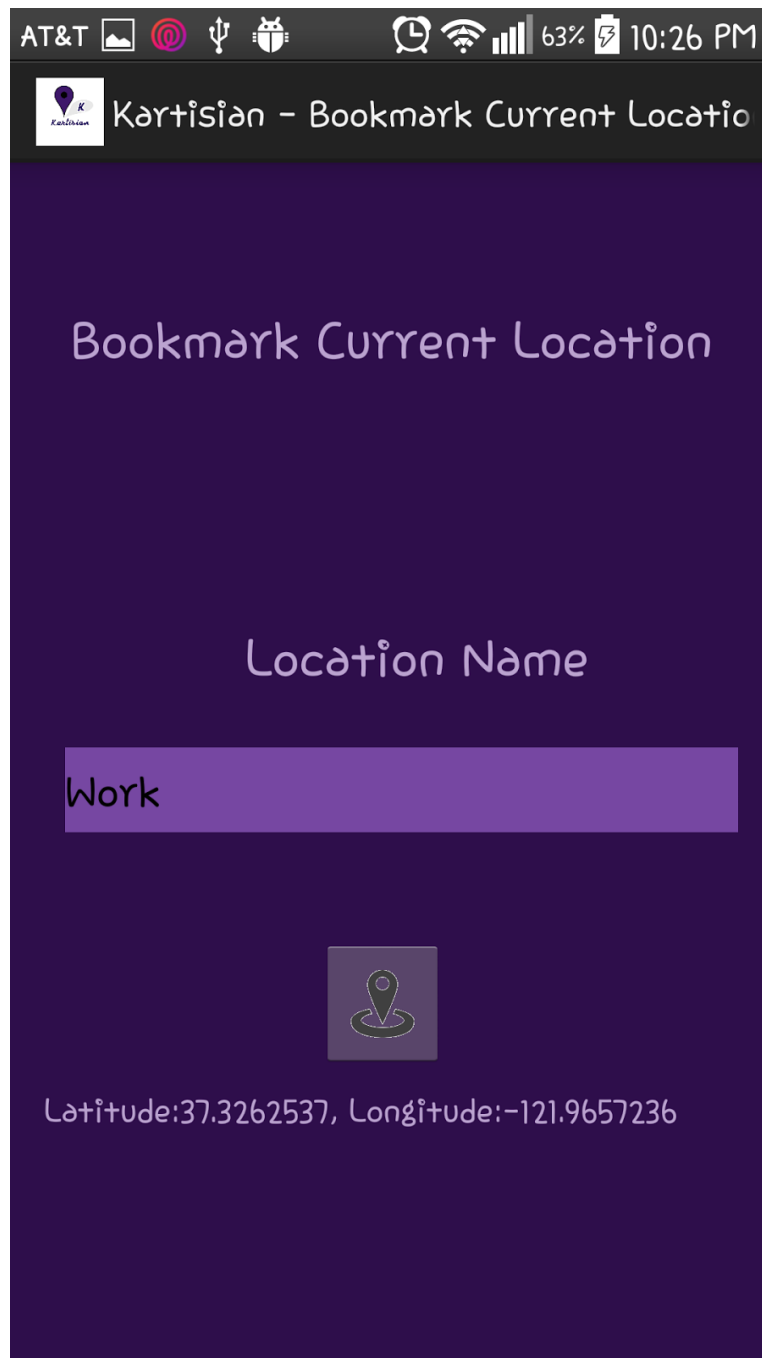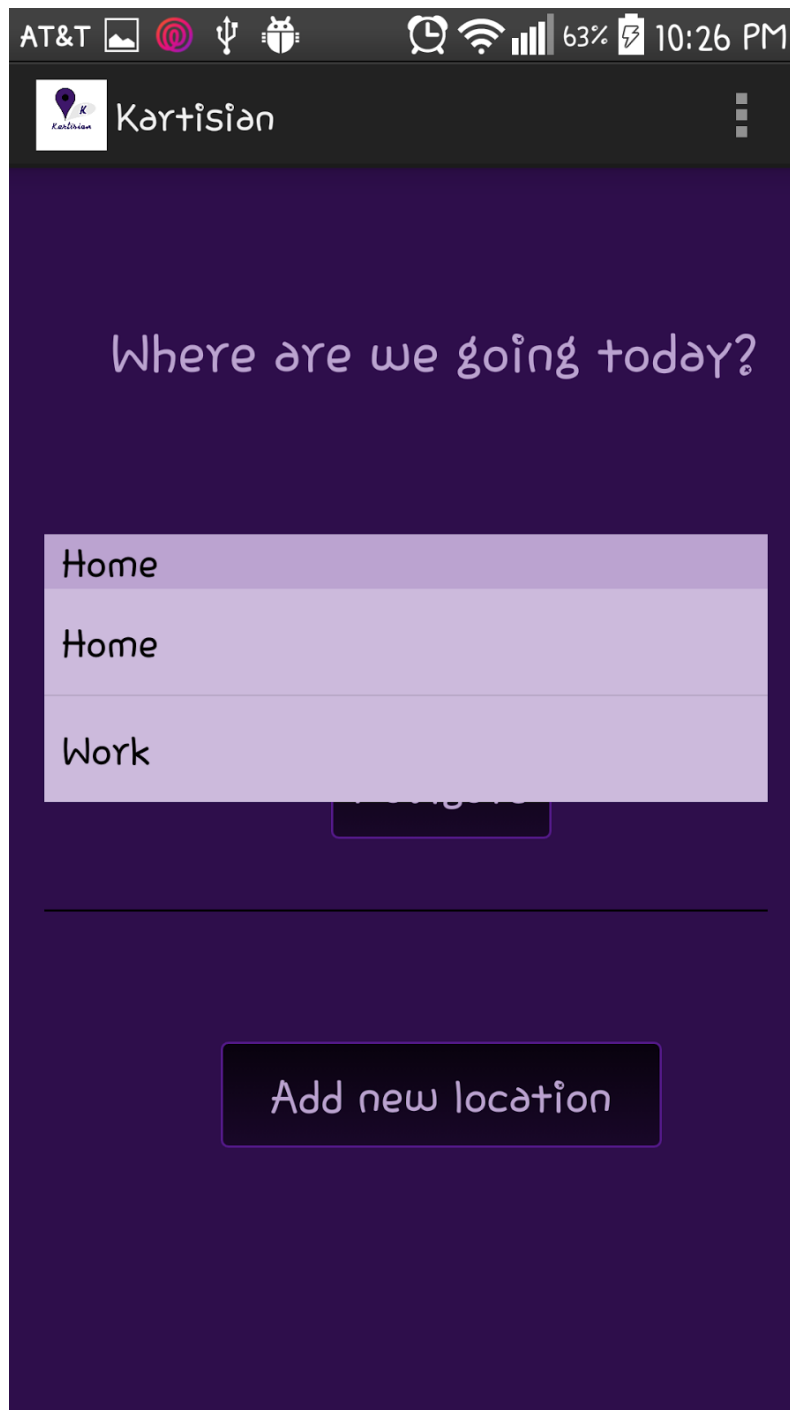Street Address: 141 Saratoga Ave

City: Santa Clara

Zip Code: 95051

Name of Location: Home

Save   Cancel

CREATING A LOCATION USING CURRENT LOCATION

CHOOSING LOCATION TO NAVIGATE TO

AT&T 🖼 ⊙ ⚡ 🪲   🕐 📶 ▂▄▆█ 63% ⚡ 10:26 PM

Kartisian ⋮

Where are we going today?

Home

Home

Work

~~Navigate~~

Add new location

AFTER CLICKING ON NAVIGATE BUTTON