

Neighborhood Informant - Sprint #4 Progress Report

Group 2: Aiwan Hazari, Deven Patel, Dhrumil Patel, and Jay Patel

Project Summary

Neighborhood Informant is a desktop application that provides ease to Chicagoland residents by providing a single application of various Chicagoland data. This application will gather real and accurate data straight from the City of Chicago data portal website. There will be an easy-to-use user interface that will allow a user to pick a location and neighborhood and receive relevant feedback about it, such as crime, schools, average income per capita, homes for sale, tax increment financing, etc. Neighborhood Informant will be a one-stop for a multitude of accurate Chicagoland information.

Sprint 4 Finished Tasks for Database

What we initially expected to accomplish for Sprint 4 was to solidify our database-to-program integration. We mapped all the data coordinates to their respective street addresses on the map. We also finished only sending some data (to the database) that we are going to display on the application's GUI, rather than always displaying it all at once. This will allow new points to pop up onto the GUI interactively as the user moves the map, similar to how Google Maps portrays data.

Further, if a user/developer uploads a datafile to portray new data, the data successfully uploads onto the Firebase database as well. Then this new data is being used for the rest of the GUI (for crime data, income per capita, etc).

Sprint 4 Finished Tasks for Application Features

What we initially expected to accomplish for Sprint 4 was to add more features to the application. We added features to allow the program to incorporate income per capita and tax increment financing onto the GUI. This way the user can get even more detailed information about their desired location.

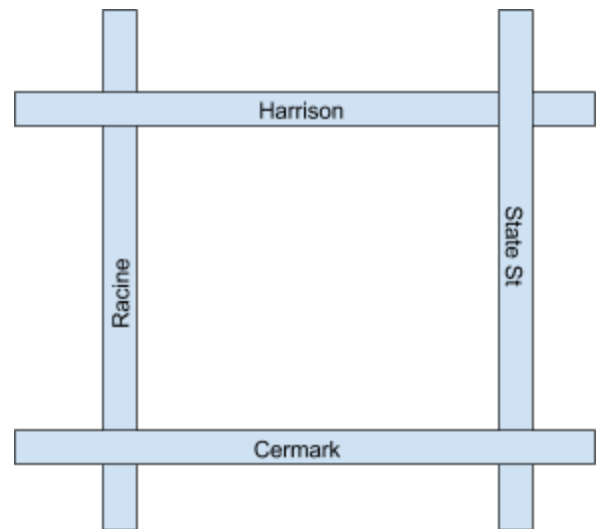


Figure 1

We also added a feature that will allow a developer (or user) to just feed in a datafile of the city (typically a JSON file), and the program will automatically only keep the data that falls into our parameters. We chose these parameters to be between four intersections, as seen on Figure 1. These intersections include Racine to Cermak to State to Harrison. We used the latitudes and longitudes, of each of the four intersection points, and ignored any data that fell outside of these boundaries. This makes the application easier to use for the developer, database manager, and the user, in order to be able to see new Chicagoland data at any point in time.

We also created an option for the user to see any dataset via a list (rather than a map). This does not necessarily make data easier to see, but will at least give the user an extra option on how they want to view the data.

Next Steps

The next steps we will take to improve our application will consist of mainly testing. Since our program is mostly event-driven programming, we will test different scenarios that a user may select. We will also incorporate any required unit testing we may need for the database and/or application. Further, we will finish up our code for when one developer's class calls on another developer's class (developers here refer to Aiwan, Jay, Dhruvil, and Deven). We will also continue to further refactor any "code smells" within our code.

If we still have time, we will incorporate a Gradle build to ease the user's ability to build and initiate this program. We might possibly also add more data, such as schools and homes for sale. We also plan on mapping coordinates with their respective street addresses automatically, instead of the manual way we currently have implemented.