

## Project Documentation

### About Our App

Our app is called BU Study. It is an interactive map of Boston University and its surrounding area. There section before the map that allows the user to filter their map, depending on where they want to go. On this map there are pins that indicate various places around campus that students can go to study. The pins are color coded according to what type of location it is (if it's on BU campus it's a red pin, if it's a café it's a magenta pin and if it's a library it's a green pin). The locations span from West campus to Danielsen Hall. To learn more about each location, the user can click on the pin and a header will pop up with the name. Click on the header to move to another page with information about the building. For example, if it is a café, the hours will be displayed. If it is a BU building, such as CAS, ideal locations, such as the Think Tank or the Stone Center Library will be displayed. To go back to the map, simply click the back button on your phone. While on the map with a location selected, if the user decides to go to a location, there is a small button in the bottom right corner that they can click that will bring them to google maps with directions to the selected location.

We created this app with Boston University students in mind. We thought that it was a useful and even necessary app because of how and where BU is situated. Because our campus is so big and widespread, there are countless locations that students can go to study, but most people don't know more than a handful of them. From personal experience and speaking to our fellow students, we also realized that many people have one or two default locations, such as Mugar or Ingalls. However, many times these locations are full, or we simply do not want to keep going back to the same location time and time again. Furthermore, many people don't know about a lot of locations to go to outside of the area of campus where they live. This app allows students to find locations anywhere on and around campus and explore places that they have never been to.

### Front-End Code

The front-end code was important in how our app looked. The first page of our app was designed on vectr and implemented. The "Click to Begin" button on the first page will take users to the settings page where users will be able to filter the type of study places that they want.

### Back-End Code

The back-end code is heavily involved in the functionality of the map. We implemented a Google Maps API to find the location of the user. We also used it to simply display the map. After the map was implemented, we placed pins at the locations selected. These locations were simply hardcoded. (We did not use an API to find the location). To place the pins, we used the latitude and longitude of the location. We filtered these pins, and colored coded them according to their type. The cafes are magenta, the libraries are green and the BU locations are red. After the map was running, the transition between pages was implemented. We have an opening page, that, when the button is clicked, moves to the filters page. This page is where the filtering of the pins occurs. Lastly, we have to transition between the pin and the description page. Once the pin is click a header will pop up, and if this header is clicked, the screen displays a page with information about the location selected.