

Project BUSCA – Study Space Availability App

Executive Summary

Study space on campus is a limited resource that most students struggle with on a daily basis. Student testimonials have shown that searching for available spaces often wastes valuable study time and often times results in the student being unsuccessful in his or her search. An app that collects data on available study spaces could be a potential solution to this common problem.

This project essentially creates a service that allows students to know ahead of time what areas have empty tables on campus. The project involves making an IoT embedded device with sensors (accelerometer/motion sensor/other) that is capable of detecting whether a table is empty or not and sending this data through Wi-Fi to a server. The data would be accessible through the app, which would have a map showing the available tables, along with a pictures and information about the table/area.

Some potential design features include having pictures of the space, a list of resources available at the study space (outlets, seats, white boards). Another desirable feature would be allowing students to send invites for others to join the table, as well as adaptability in case a table is moved around.

The results from a small student survey show that students are interested in an app that tracks study space availability. While some students said they would potentially pay for this service, most would prefer an app that uses ads to sustain the service, which is the standard business model for modern day apps and services. The students' desire for the complexity of the design varies with some students wanting the app to be as simple as possible, while other students want a more advanced design that utilizes predictive learning algorithms. A key comment that many students suggested was an interactive map of the buildings that would allow for students to search a building's space and select the space that best suits the students' needs.