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Final Project Proposal

The purpose of my final project is to learn about a language with which I have little to no previous experience, as aligned with one of the goals of this class to educate one's self on a breadth of programming languages. I will fulfil this purpose through using JavaScript as the primary language in which my project is written. I have only used JavaScript once through a previous project in this course. The reason for choosing JavaScript is because of its current relevance in the industry, especially with concern to web-based applications. I feel a project based on learning about JavaScript will help me my educational goal of learning about a new language, as well as professional goals of having experience with a technical skill that is widely used.

The concept of my project is to work with fellow classmate David Nguyen to create an application that can determine the shortest route to a room or place of interest in the SL building on the IUPUI campus. Each member will record data, and the code implementation workload will be split equally, as will be the visual presentation. We plan to use a shortest path algorithm, such as Dijkstra's Algorithm or A-Star, to achieve this. Furthermore, we are planning to use a cellular model to represent the indoor spatial relations. As mentioned previously, we plan to use JavaScript as the main language so we may learn more about a language we covered in the course and gain experience using a technology we think may be useful in a professional setting.

One of the challenges associated with this project is gathering data to build our map because, as far as we know, there is no data available. Another challenge will the creating a visual map. We will test our results against experimental trials performed by physically performing each possible route and recording the distance and speed through maintaining the average walking speed when traveling each route in order to record accurate time of travel.