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Final Project Proposal

As per the goal of the final project for intro to programming languages, I wish to further develop and familiarize myself with JavaScript, as it is one of the languages in which I am least comfortable with. Despite taking a few web development courses that utilizes JavaScript for functionality, I feel as though the knowledge of JavaScript obtained through those courses are minimal, at best. Therefore, I believe that it is best if I am able to create a final project that fully takes advantage of what JavaScript has to offer. Since JavaScript is among the industry standards, I feel as though it will be greatly advantageous to demonstrate near mastery of the language through this project, let alone creating a project of interest using JavaScript as a primary component. Given that I have some superficial knowledge of JavaScript, my main goal will be to make JavaScript one of the primary languages that I am most proficient in.

The concept of my project is to work with fellow classmate Max Comer 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 be the creation of 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.