Elizabeth Joque
Project Proposal
CSCI 455

Title: Using R-Trees to Map the University of Puget Sound Campus

Section I: Explain you're hoping to accomplish, addressing all the points below, if applicable:

What problem are you trying to solve? Why is the project interesting to you?

I'm attempting to implement an R-Tree so that I can quickly find particular locations of interest on a map of the University of Puget Sound.

Address the novelty of the project. Explain what this project will teach you beyond what you'll take away from this course.

I will be learning about and implementing an R-Tree, which is an indexing structure we haven't studied in class. This project will teach me how to apply the concepts we've discussed about indexing to a new context that involves geospatial data.

List the expected challenges. How do you expect the project will push you and your team? In what areas do you expect to face challenges? (The challenges may not be technical.)

I think what will be difficult is pacing myself in working on this project. I have no idea how I will implement the visual representation of what my program is doing. I also think I'm just overwhelmed in general by this project, but hopefully with some guidance that will get better.

Section II: Tentative Grading Rubric

How should we measure the success of your project? This also gives you a chance to think a little bit more about the details of the project. Work to distribute 100 points across different "success metrics." You can model your rubric off of the ones I give you for your assignments. This rubric is only tentative, because we might expect plans to change as time passes. I will be using the finalized version to assign a final grade to your project.

Rubric:
[5pts] A schema with primary keys & foreign keys has been defined for SQLite to store information about the map.

[10pts] Program gracefully takes a map (image) and populates the R-Tree.

[15pts] Program takes user input to find points of interest on the map.

[20pts] Program creates a visual representation of the function of the R-Tree to show how the structure is used to find points of interest on a map. This visual representation is displayed after the user queries the program for a point of interest.

[50pts] The R-Tree is implemented correctly. (I might need some help to figure out what this looks like)