Vision Document

Ultimate goals:

- Build something you, your group, and your prof are all satisfied with.
- Finish the class confident about and prepared for working on software projects.

Product vision:

We intend to build a scavenger hunt game based on a virtual Macalester College map. Although it does not have any practical uses, it could potentially serve as a tool for prospective/Mac students to learn this campus better while having fun.

A general blueprint of the project is as follows:

- Users should be able to walk around the virtual Macalester map (either 2D or 3D) by using the arrow keys
- Pinpoints on the map are pre-determined
- Every pinpoint has a (random) problem for users to solve
- Problems are either related to Macalester or some interesting puzzle questions
- After solving a problem, users should get clues for next destination

Additional...

- Collecting gold coins
- Spending the gold coins in buying food/drinks, changing the color of pavements, painting the road and etc.

Audience for May launch:

We are building this game for prospective Mac students as well as current students, faculty and staff members. If it finally meets our expectations, it can provide a virtual campus tour to prospective students.

We are not thinking about launching...But could be a demo for Admissions Office.

Risks:

Designing the campus map (also figuring out if we can use Google interface), figuring out how to put the map as the background of the window, identifying the “walls” on the map, and letting the person walk on the map without hitting on the wall or walking outside the window might be unknown difficulties.

Also, it might be hard to let a window pop up when the person steps on it. We lack the skill of writing C code, especially if we're using Unity as our game design platform. Also, we don't know how to design graphics.

The frustration of teammates, the hardness of compatibility of our own code and the environment, and the possibility to change codes back and forth are outside of control.

For designing the campus map and how to put the map as the background of the window, we don't have a clear detailed idea, and the consequences are huge. We can mitigate the risk by studying it at the beginning, which gives us more time.

For identifying the "walls" on the map and the logic of walking on the map, the unknown is not big and we have a sketchy idea of how to do it, while if we could not figure it out, our project is likely to crash. We can mitigate the risk by implementing it at first.

Phases & timeline:

Phase 1: Minimal Viable Product (03/11)
- Finish creating the map
- Design/implement the game mechanics: The character will be able to walk on the map using arrow keys without hitting the "wall"; start and end walking

Phase 2: Adding clues/pinpoints (03/20)
- Design the game interface
- Collect interesting scavenger hunt problems
- Determine where each clue is
- Being able to pop up the clues based the location of the player
- Accumulate coins/points as the player answers more questions

Phase 3: Additional features (04/01)
- Spending coins to buy products
- paint roads
- go to cafe mac... etc.