Vision Statement Assignment

Your Vision Statement describes a software system that helps solve a real-world problem. One example is a "web spider" system that sifts through millions of websites looking for the contact information of job training centers, then presents that information in a categorized fashion on a searchable map. Vision statements include the following elements:

> • A user or stakeholder-- Who will be helped by this software? What problem do they have?
> • A specific task the user is trying to accomplish using your software
> • A broad overview of how the software will help the user solve a problem
> • A broad overview of how the world or user would be different if your software were implemented

All the students will get to vote on which Vision Statements would be most interesting to use for class projects this term, and the authors of the most popular Vision Statements will receive extra credit. Note that this means *all vision statements will be publicly posted on a website.* So only put stuff in the vision if it's ok for the world to read it.

Imagine a system that could be built if you had infinite time and money, but don't propose a system that works based on "magic." You need to have at least some idea of how the system might be constructed, because if your idea is chosen you will be the customer leading a group to design it. Remember that if you propose a system that can't possibly be designed, then nobody should vote for your idea.

A note on the scope of the proposals. Many students take this class and say that this all is overkill for the programming they have done. And, they are right! Software engineering is a set of tools and processes for managing and successfully building humongous applications. Think millions of lines of code, written by hundreds of coders, used by many organizations, and by thousands (maybe millions) of users. A completely different ballgame. Think big! For the vision statement submissions you can always focus on part of the system and drill down. Pick the part you find most interesting or challenging. Put the glitz in your draft to get votes! Then you have 4 weeks to flesh it out!

HINT: The larger your proposed application is, will make it easier to write a full vision statement! ☺

Writing A Vision Statement

Over the course of the next 5 weeks, you will be drafting different versions of your vision statement.

***The Big Idea:* Due End of Week 1**
Answer the following questions to come up with your Big Idea…

> Q. 1: What's a problem you've noticed that someone might be encountering in the world?
>
> Q. 2: What evidence do you have about this problem—did you read it in the news, see it on the street, or read it in the research? What are the details of the problem (e.g., how often does it happen? To whom? Why?)? **Cite sources for your evidence.**
>
> Q. 3: Tell a brief story of what happens when someone encounters this problem in real life/real time.
>
> Q. 4: How might a software system or application affect/solve the problem? That is, when, where, and how does the software system enter the problem storyline (Q. 3)?

Q. 5: What are the features of the system that make it so effective or useful? (For example, how does this system make a task or activity more efficient or easier?)

Q. 6: Name at least three things a user should be able to do with the system you're proposing? (For example, for a particular application the user should be able to (1) filter bad websites, (2) in fewer than 30 seconds, and (3) highlight accurate information about a particular topic.)

Q. 7. Describe what would happen if the software system/application were implemented and worked—how would the world and user be changed for the better?

Cite references where appropriate: descriptions of the problem, technologies you propose to use, documentations or descriptions of database you propose to access. Pick a technical report format; IEEE or ACM are good for computer technologies. Use that format for your proposal. It will make it easier in the long run.

Written Documentation: Due End of Week X
Write a document summarizing the answers to the questions. Suggested outline might look like this:

I.   Introduction
II.   Description of problem (include users, evidence, and story about real life)
III.   Description of solution
IV.   Description of metrics for success (what will the world look like if your application actually works?)
V.   Conclusion

You will be presenting these ideas to the class, so make sure you write these in such a way that others understand and buy into the storyline behind your idea.

Grading

Here are the grading criteria for the **updated** (expanded or final) vision statement:
- 20 points: does the vision statement outline a real world problem and affected users
- 35 points: does the vision statement outline the parts of a system (at least three) that might contribute to a solution for the user?
- 30 points: does the vision statement include all of the required sections?
- 10 points: does the vision statement provide a reference for all quotes, images, and other materials borrowed from elsewhere?
- 5 points: does the vision statement contain 2000 words or more? [The page count is here because students often ask how many pages? If you do the vision statement completely and thoroughly it will be hard to have less than 200 words. If you tell me that "I only have 1251 words!" My response will likely be "Is it really detailed enough? And/or "Is your proposed application large enough?"]

Note that the grading is IN ADDITION TO extra credit awarded for vision statements that students select for project work.