

## CS 488 Project Guidelines

Due Saturday, 24 September through the Task 1 link

You and your partner need to define the basis of a project according to these criteria. Be brief, but provide enough detail so I can make sense of what you're proposing. Monday we'll present the options, and Wednesday we will build teams around the most viable options. I may ask for clarification before Monday.

You have first priority to be on the team of most likely four (but no fewer than three) to do the project, but you are not obligated to stick with it. If you see another option you like better, switching is fine.

0. State your names. Only one of you needs to submit this.
1. Present the problem statement. For example, an average homeowner designing a new house wants to play with options for installing solar panels.
2. Explain who the intended user is. It can be you or a fictitious entity you will represent. For example, the user is a homeowner building a new house.
3. Describe why the user has this problem. For example, there are decisions to make and many options, which are difficult to manage for the average user.
4. Describe how a solution would benefit the user. For example, maximizing the solar generation while minimizing the cost saves the homeowner money. Stay within the scope of the problem; e.g., do not consider climate change because the connection is too indirect.
5. Describe the general flow for addressing the problem. The existing (or imagined) flow does not have to involve a computation solution. For example, the user defines the property and house layout and expected energy needs, then the system proposes solutions that best satisfy the criteria. This used to be done on paper by expensive expert contractors.
6. What is the general nature of the solution? For example, app, standalone program, website, plug-in.
7. List the general software components you envision playing a role. For example, web server, database, game engine.
8. List the general hardware components you envision playing a role. For example, drone, VR headset, tablet. You are responsible for your own hardware, so be reasonable.

9. Describe similar solutions, if any, and justify (or make up a justification) for why they are inadequate. For example, SolarBlaster 9000 does something similar, but its cost and complexity are prohibitive.

Do not get detailed with software engineering aspects. Requirements and specifications, for example, come later in the process, unless they are directly relevant to the proposal and have a justification. For example, an Android app because you have an Android device and want to become an app developer.