

CS 320 Spring 2024

Product Idea

Due: **Monday, February 12, 2022, 9:00 PM EST** via [Moodle](#). For this assignment, you may either work alone or with one other person in the class. If you work in a pair, submit only one set of slides per pair. Clearly list names of all contributors on the first slide.

Overview

The goal of this assignment is to get great product ideas out on the table for discussion and consideration. Each team (of 1 or 2 students) will submit a 4-slide presentation (.ppt, pptx, .pdf, or another common presentation format) and give a 3-minute presentation in class.

Your primary job in this assignment is twofold:

1. To describe your proposed product so that people understand what it is and why it is valuable.
2. To describe the product architecture so that it is clear that the system can be built, making excellent use of the available resources (approximately 13 weeks and 8 engineers) and technology.

Use the class, or the [Moodle class discussion forum](#), if needed, to find a partner.

The class presentations will take place on Tuesday, February 13 (in class 2:30–3:45) and Thursday, February 15 (in class 2:30–3:45). After everyone presents their product ideas, you (and everyone else) will have the opportunity to review the material and vote on the products they feel most compelling and would most like to work on. At that point, the course staff will reorganize you into larger teams, with six products going forward to be actually built!

Product requirements

The function performed by your product is entirely up to you. With this assignment, you have the opportunity to propose a product that you think is interesting and valuable. Think about the customer of your product. Your product should either cover new territory or have some compelling feature(s) that would make your customer select it over related products.

The four constraints on the product design, however, are:

1. It may not be a game.
2. It must be based on a client / server networked architecture. The product must have some sort of a server (that may, for example, do computation or store data), and clients that communicate with the server to deliver the functionality to users. You will later in the class be expected to specify the interface between the client and server.
3. It must be installable and runnable by 320 staff working on typical personal computers.
4. It must be of suitable size and scope to be feasible in the time allowed, with a team of 8 software engineers.

Ultimately, if you can convince your fellow developers of your product's value, you can then design and build it in a team environment. This will give you practice working in a team, building a real product with the processes we have and will discuss in class.

Note that you may not receive monetary compensation or credit in another course for working on the 320 project. However, what you do with it after the semester is over is up to your team.

Product life cycle

We are following a combination of a staged delivery and a spiral life cycle model in the activities of this class. This assignment can be thought of as an early spiral turn around the life cycle. Given the short time between now and your presentation, the three lifecycle elements to cover in your product pitch are:

- **Vision:** What is your product, on a high level? Who is it for? Why is it interesting? Describe the top-level objectives, differentiators, target customers, and scope of your product.
- **Software architecture:** How are you going to implement the preceding functionality? Describe at a very high level the components / modules that will interact in your system, and any languages/toolkits you propose to use for the development. A diagram is required.
- **Challenges and risks:** What is the single main challenge you see in developing the product on schedule? How will you minimize or mitigate the risk?

Deliverables

Submit a presentation (.ppt, .pptx, .pdf, or another common presentation format) with exactly the following four slides:

1. title slide with product idea title and **student names**,
2. vision slide,
3. software architecture slide, and
4. challenges and risks slide.

All group members must participate in the presentation. Be sure to introduce yourselves.

Grading

Your grade on this assignment will not be determined by whether your product idea goes beyond the proposal stage. We will be looking to see that you have addressed the identified product elements, that you have made reasonable judgments concerning them, and that you have organized and presented your product idea well. Remember that this delivery is the basis for the class to decide which products to develop and deliver this semester.