**CPAN 212: Modern Web Technologies**

**Project Phase 1: Planning**

Welcome to your Project

In the first phase of this project, I want you to plan out your application, which will include defining the **purpose, features, and feasibility** of the project. This phase sets the foundation for the rest of the development process and helps clarify the project's objectives and structure. The planning document will serve as a roadmap and will be evaluated based on the following criteria:

1. Clarity of Purpose (20%)
2. User System Design (20%)
3. Feature Justification (20%)
4. Feasibility (20%)

Here is how I like to do this:

1. Get an idea, draw out a visual for your project. The closer you get to really envisioning your project, the more you can flash it out
2. Breakdown the drawing, what do you need, what do you see and what don’t you see.
   1. Think about it from a consumer,
   2. think about it from a developer
   3. think about it from a business perspective
3. Start developing (there are more steps, but this is just the planning phase)

Clarity of Purpose (20%)

**Objective**: You must define the purpose and goals of the application. This section should outline the primary problem the app intends to solve or the main function it will serve.

Category Specification: Students must specify which of the three categories their application falls into, (examples from our class down below):

* CART (e-commerce): If the app focuses on allowing users to browse and purchase items, place orders, and manage shopping carts.
* Infotainment: If the app provides entertainment or information to users, potentially through comments, posts, or interactions.
* SaaS (Software as a Service): If the app offers a tool or utility that allows users to save or manage their work or other tasks.

|  |  |  |
| --- | --- | --- |
| CART | Infotainment | SaaS |
| Amazon  Temu  Etzy  Sephora | Youtube, Netflix  Instagram, X (Twitter), Facebook  Reddit  Anime sites  The score  Wiki sites | Blackboard  Mailing services  Office suite (google docs etc), Google drive  AirBnb  Banking  Storyboard |

Example:

“Our application will be a CART-based e-commerce platform where users can browse a variety of products, add them to their shopping cart, and place orders. The application aims to simplify online shopping by providing a seamless and user-friendly experience.”

User System Design (20%)

**Objective**: Students should describe in detail how the user interacts with their site and how the client and server communicate.

* Talk about the interactions
  + User to client side (your react app)
  + Client to server communications
  + Server to database
* Try a user interaction diagram
  + Think of this like writing each interaction
    - When they enter my site, they can do so and so
    - Cart app example
      * They enter the site on homepage, they can login, search
      * With each of those pages, here is how the client side reacts
      * The client side will fetch data from our server

Feature Justification (20%)

**Objective**: This section should justify why the selected features are important to the application’s overall functionality and user experience. Students need to demonstrate how these features contribute to solving the problem or providing value to the user.

* Justify features like product search (for CART), user interaction (for infotainment), or data saving utilities (for SaaS).

Example:

“The ability for users to register and log in ensures that personal data, such as purchase history and cart items, are saved securely and accessible only to the user. The product search functionality simplifies navigation and enhances the user experience, making it easier for customers to find items quickly.”

Feasibility (20%)

**Objective**: Students must set milestones for their project. The project should be completed within the semester, not the final weeks of class. They should pace themselves to avoid last minute stress.

* When do you plan to dedicate time for the work
* How do you break down when to do work:
  + Consider when we do things in class, if you believe a lesson will advance you in the project, find some time and work on it.
* Challenges or limitations that may arise and how they plan to address them.
  + Time management
    - If you are making a clone, consider looking at the length of the tutorials
  + Things out of your control
  + Ultimately, give me a minimum and a maximum for what work you believe you can accomplish.
* Add references to what you want to build. YouTube videos, existing projects or documentation that can help you.

Submission

Provide me a small document with as information as you can provide me about your idea. This is not meant to be a final draft. I want to see how much you can flush out your ideas. You worked on the front-end last semester, so start there. What webpages would you make. A third of your work will be the Frontend, and the other will be practiced in class.

* Documentation for:
  + Idea, describe it, why do you think it’s a good idea
  + Breakdown for pages and endpoints

Additional Notes:

Whenever you complete your ideas, I will try to make some time to provide feedback on what you can do in addition to everything in class. If you have a complicated project, I may notify you about potentially splitting the project into 2 semesters, or I would change your requirements to accomplish your goals.