CMPSC 390 – Homework 2

Project Design & Responsibility Breakdown

Objective

In Lab 2, your team defined **what you are building**.
In this assignment, you will focus on **how the system will work** and **who is responsible for each part**.

You should already have from Lab 2:
• A defined project idea
• A list of proposed features
• A general direction for your application

Step 1: Divide Responsibilities (Group)

As a team, decide how work will be divided for **planning and design**.

Most teams will divide responsibilities into areas such as:
• Frontend planning: Isabella Alatorre
• Backend logic planning: Yair and Fernando
• Database design: Luis

You may divide responsibilities however you prefer, but:
• Every team member must have a clear responsibility
• Responsibilities must be documented

Deliverable:
• A short list mapping **team members** → **responsibility areas**

Step 2: Select Three Core Features (Group)

From your existing feature list (Lab 2), select **three features** to design in detail.

These should be:
• Central to your application
• Realistic to build during the semester

Deliverable:
• Names and brief descriptions of the three selected features

- Tracking Budgets
- Input Calculations
- Tracking Price Changes

Step 3: Frontend Design (Individual)

The team member(s) responsible for frontend planning must create wireframes for how users will interact with the system.

Requirements:
• At least **three wireframes**
• One must be the home or landing page
• Navigation between pages should be clear
• Visual consistency across screens

Deliverable:
• Wireframe diagrams
• Contributor name(s) listed

Isabella Alatorre

Step 4: Backend Logic Design (Individual)

The team member(s) responsible for backend planning must write **pseudocode** for the three selected features.

Each feature should describe:
• User action
• Backend logic
• Database read and or write
• Response returned to the user

Pseudocode should be:
• Language-agnostic
• Clear enough for another developer to implement

Deliverable:
• Pseudocode for three features
• Contributor name(s) listed

Yair Lopez and Fernando Estrada

Step 5: Database Design (Individual)

The team member(s) responsible for data design must define how data will be stored to support the three selected features.

Choose one approach:

Relational Database

• Tables and relationships
• ER diagram

NoSQL Database

• Document structure
• Mock data layout
• Diagram or structured explanation

Deliverable:
• Diagram and explanation
• Contributor name(s) listed

Luis Villagomez

Step 6: Tooling & Hosting Setup (Group)

As a team, ensure the following are set up:

• One GitHub repository with all members/instructor added
• One project board (Trello or equivalent)
• One communication method selected

Instructor access required:
• GitHub: @williamburbatt
• Trello: @williamburbatt2

In addition, identify **one potential hosting approach** for your project.
• Research only
• No deployment required

Deliverable:
• Short write-up describing the hosting option

Submission Requirements

One submission per team by the Project Manager.

Your GitHub repository must include:
• A documentation folder containing:
• Responsibility breakdown
• Frontend wireframes
• Backend pseudocode
• Database design
• Hosting notes

Submit in Canvas:
• Link to the team GitHub repository