Web Development Fall 25 Project

Choose one of the project ideas

Project Idea 1: Reddit Clone

Introduction

The project is to build a minimal Reddit clone. Reddit is a social media platform where people can:
- Join/create communities
- create posts
- comment and upvote other people's posts

Check out reddit.com

Now reddit is a very complicated platform with many many functionalities. In this project we will try to create the basic requirements of the platform and any extra features added will be rewarded with bonus marks.

Requirements

The UI must match the actual reddit UI as closely as possible.

Basic requirements:
1. Account creation and login
2. Viewing/Editing user's profile
3. Creating a community
4. Joining/Leaving a community
5. Creating a post on a community
6. Viewing posts of a community
7. Viewing feed page
8. Upvoting/Downvoting posts
9. Commenting on posts
10. Searching for communities and users

AI integration feature

We will be adding a new feature where users have the option to summarize a post using generative AI. *Don't panic! It's very simple to implement.*

You can get inspiration for extra features by checking reddit itself.

Project Idea 2: Online Marketplace

Introduction

The project is to build a marketplace where there are sellers that can list items for sale and buyers that buy the listed items.

The marketplace will work as follows:
1. Sellers will list their items for sale on the marketplace
2. Buyers can create orders from the listed items
3. Sellers receive the orders and are responsible for delivery

Requirements

Since this is not a clone, you will have to design your UI.

You will need to develop 2 separate web apps: one for the sellers and one for the buyers.

Since delivery is a responsibility of the seller, the system will work using a flagging system. The buyers can flag sellers that delay/don't do their deliveries, and the sellers can flag customers that don't receive the packages.

We will work under the assumption that the sellers can deliver to any location. Adding serviceability (setting the service area of the seller) will be rewarded with bonus marks.

Seller app requirements:
1. Account creation and login
2. Listing items (including a delivery time estimate)
3. Grouping the listed items into categories
4. Receiving orders
5. Changing the status of the orders
6. Flagging buyers

Buyer app requirements:
1. Viewing the catalog page
2. Searching for products
3. Viewing product categories
4. Placing orders
5. Tracking orders
6. Rating items
7. Flagging sellers
8. Add comments on orders

AI integration feature

Buyers can get a summary for the comments added for a product.

Deliverables

1. Codebase on GitHub.
2. Database schema diagram.
3. APIs documentation.
4. Contributions of each team member. If you have your name as a contributor on a point, you will be asked about it in the discussion.

Teams

Students may work in groups up to 6 students per group.

Timeline

This timeline is recommended but students are free to work as they see fit.

Weeks	Work
3-5	● Creating the teams ● Requirements analysis: breaking down the requirements into user stories. ● Database design.
6	● Frontend
7	● Midterms
8	● Frontend ● Backend design
9-12	● Frontend ● Backend ● Integration
13-14	● Extra Features ● Documentation ● Deployment
15	● Discussions

Tech stack

Students are free to work with the tech stack of their choice. In our labs we will be using MERN stack

Grading Criteria

Team grades:

Item	Weight
Basic Requirements	25%
AI integration requirement	10%
UI	15%
Database Design	5%
APIs Design: use swagger, postman or any tool for API documentation	10%
Clean Code	5%

Reddit bonus items

Bonus Item	Weight
Chatting feature	5%
Deployment	5%

Marketplace bonus items

Bonus Item	Weight
Serviceability	5%
Deployment	5%

* Any extra features added will be rewarded 2 extra marks per feature.
* Deployment means that the project is available for use and can be accessed by any device from anywhere.
* Note that the team grade including the bonus is capped at 80% of the project mark.
Meaning that the team grade component cannot get higher than 80% of the project grade.

Individual Grades

Item	Weight
Discussion	30%

Academic Integrity

Use of Generative AI (e.g., ChatGPT) is permitted, but must be used responsibly.
Students are expected to fully understand all aspects of the code they submit. During the
project discussion, if a student is unable to explain parts of their own code, they will be
deducted marks. **Be prepared for an in-depth discussion.**

Plagiarism (copying someone else's code) is **prohibited**.