HLD

Online Judge

10ᵗʰ July 2022

Database

- **Users:**
  - UserID: Int
  - UserPassword: String
  - UserEmail: String (Unique)
  - UserName: String (Unique)
- **Problems:**
  - ProblemID: Int
  - ProblemName: String (Unique)
  - ProblemStatement: String
  - Difficulty: String
- **Test-Cases:**
  - TCID; Int
  - ProblemID: Int
  - TCInput: Int
  - TCOutput: Int
- **Submissions:**
  - SubmissionID: Int
  - ProblemName: Int (foreign key)
  - UserName: String (foreign key)
  - Verdict: String
  - Date: Date

Frontend + Backend

- **Landing Page:** Login/SignUp - compulsory to access further contests. Verify for auth using API.
  - A card with 2 options Login and Sign Up.
  - The login card will ask for UserName, Password
  - Sign Up card will ask for UserName, UserEmail, Password

- **ProblemList:** Use GET method to fetch the problems and displays them as the list.
  - Will fetch all the ProblemName from the Problems schema
  - The name of the problem will be clickable and redirect to the Problem page.
- **Problem:** Use POST method to fetch the statement of the selected problem and display it.
  - Will contain/show the ProblemStatement, Submit button, and Upload File button.
  - Submit button will POST the code/file and run through all the test cases of the problem and redirect to the submissions Page.
  - The upload button will choose the file (.cpp only).
- **SubmissionPage:** List of recent submissions by all the users by using GET method
  - Shows SubmissionID, UserName, ProblemName, Verdict

Timeline

- ☐ Landing Page: 13 July
- ☐ ProblemList Page && Problem Page(only UI): 14 July
- ☐ Submit Button+ Compiler: 17 July
- ☐ Submission Page: 18 July
- ☐ Dockerization: 21 July
- ☐ Deployment: 25 July