DSA Practice Website

TechStack
Backend: Node JS, Express JS
Frontend: React Vite
Database: Mongo DB
Styling: CSS/CSS Tailwind

DSA Practice Website Proposal

The proposed website will serve as a comprehensive Data Structures and Algorithms (DSA) practice platform with two main components: a Practice Arena and a Contest Platform. The Practice Arena will feature a question bank where users can select problems to solve in an integrated code editor. Upon submission, the code will be evaluated against test cases - if all tests pass, users can save and exit; if not, they can edit and resubmit their code.

The Contest Platform will host timed competitions where multiple users compete simultaneously by solving DSA problems. The platform will generate a dynamic leaderboard ranking participants based on two primary criteria: the number of test cases passed and the time taken to solve problems. The homepage will display key user metrics, including contest participation history and the total number of problems solved, providing users with a clear overview of their progress and standing within the community.

Block Diagram