

Name:- Layered Architecture model of an Online Judge System .

Ans:-

Creating a Layered Architecture model for an online Judge System involves ~~understand~~ understanding its structure and components. Here's how you can create and organize my handwritten drawing:-

Steps to create Handwritten Diagram :

1) Choose Layers :-

- Presentation Layer :-

- web on mobile Interface .
- Displays problem , user submissions and results .

- Application Layers :-

- Handles problem Submission , solution Evaluation and user requests .

- Business Logic Layer :-

- Core functions like compiling code , running

test cases, and Scoring,

• Data Analysis Layer:-

→ Interacts with databases for user data, problem sets and Submission history.

2) Ind

2) Identifying Components:-

→ Authentication and Authorization.

→ Code Submission and Execution queue.

→ Compiler, test case management, Scoring Algorithm.

→ user profile Data, Submission log.

→ Cloud platforms, Sandboxes, Database.

3) Draw the Diagram:-

→ Use rectangular box on layers to represent each layers.

→ Label components with each layer.

4) Test case flow example:-

- User Submits code → Application queues the code → Business Logic compiles and tests it
- Result.. Stored in the database → presentation display the results,

OJ Architecture.

