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All Handwhitten drawing on Layered Architecture Model of an Online Judge System in Software Engineering, selow give respective layer:

1. Presentation layer: + User interface (e.g. Website or mobèle app) - users submit code here, view resells, and check the leader board

2. Application layor:

-> Implements buriness logic

-> Manager authentication, conterst logic, submission validation, etc.

3. Service Layer:

-> Communicately between the application lyer and external services.

-> Example: Code execution services, plagiariesm Checking, email notifications.

4. Patr Layer:

-> Example: Code execution services, pla user information, problems, submissions, contest results.

-> Manages low-high lovel system operations like server management job queues, and container on chestration. Infrastructure layer:

-> Example: Cloud hosting, Docker, Kubernetes.

Diagram details: The diagram is like a flowchart, with the layers writanged sequentially from top to bottom. Armoner indicate how each layer interacts with the other.

Online Judge System-Layered Architecture

Presentation layer Example: website on mobile app

Application layer Ex: manages authentication, content logic etc.

Service layere Example: code execution, email notifications etc.

Data layer Example: Usin information, problems, resulto etc.

Infrastructure layer Ex: cloud histing, Docker etc.

Fig: Layened Architecture of Online Judge System