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Layered Architecture model of an online Judge

→ used to model the interfacing of sub systems.

→ Organises the system into a set of layers each of which provide a set of services.

→ Supports the incremental development of sub-systems in different layers. when a layers interface changes, only the adjacent layer is affected.

→ However, often artificial to so structure systems in this way.

→ Organizes the system into layers with related functionality associated with each layer. A layer provide services to the layer above If so the lowest-level layers represent core Services that are likely to be used throughout the system.

— used

used when building new facilities on top of existing systems, when the development is spread across several teams with each team responsibility for a layer of functionality.

When there is a requirement for multi-level security

<u>Advantage:-</u>

Allows replacement of entire layers so long as the interface is mainted. Redundant facilities can be provided in each layer to increase the dependability to the system.

<u>Disadvantage:</u> In practice providing a clean separation between layers is often difficult and a high-level layer may have to interact directly with lower-level layers rather than through the layer immediately below it.

performance can be a problem because of multiple levels of interpretion of a service request as it is ~~prod~~ processed at each layer.