

L/Q

## Explain Architectural Design:

Ans:- An architectural design begins, the software to be developed must be put into context - that is, the design should define the external entities that with the software interact.

Now, we examine the architectural designs in a bit detail.

## → Representing the System in Context:

In the architectural design level, a software architect uses an architectural context diagram (ACD). The system for which an architectural design is to be developed are represented as:

(1) **Superordinate System:** those systems that uses the target system as a part of some higher-level processing scheme.

1. **Actors** — entities (people, device) that interact with the target system by producing or consuming information.

2. **Peer-level systems** — those systems that interact on peer-to-peer basis (ie:- information is either produced or consumed by target systems).

### ⇒ Define Archetypes:

An archetype is a class or pattern that represents a core abstraction that is critical for the design of an architecture to the target systems. In general, a relatively small set of archetypes is required to design even more complex systems.

In many cases, the archetypes can be derived by examining the analysis classes, defined as part of requirement model.



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## ⇒ Refining the Architecture into Components:

As the software architecture is refined into components, the structure of the system begins to emerge.

Analysis classes represent entities within the application domain that must be addressed within the software architecture.

In some cases (e.g., a graphical user interface), a complete subsystem architecture with many components must be designed.

## ⇒ Describing Instantiations of the System:

The architectural design that has been modeled to this point is relatively very high.

To accomplish this, an actual instantiation of the architecture is developed.