

Q.1 What are the primary goals in the design of UML?

Solⁿ The primary goals in the design of UML are:

- (1) Provide users with a ready-to-use, expressive visual modelling language so they can develop and exchange meaningful models.
- (2) Provide extensibility and specialization mechanisms to extend the core concepts.
- (3) Provide a formal basis for understanding the modelling language.
- (4) Encourage the growth of the OO tools market.
- (5) Integrate best practices.

Q.2 Define Class diagram.

Solⁿ A Class diagram is an illustration of the relationships and source code dependencies among classes in the UML (Unified Modelling Language).

Q3 Define Activity diagram

Solⁿ An activity diagram is a behavioral diagram i.e. it depicts the behavior of a system

It visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram

Q4 What is Interaction diagram? Mention the types of Interaction diagram

Solⁿ They are models that describe how a group of objects collaborate in some behavior - typically a single use-case.

Q5 Types of interaction diagram

(1) Communication diagram

(2) Sequence diagram

(3) Timing diagram

(4) Interaction overview diagram

Q5 what is Sequence Diagram?

Solⁿ It depicts interaction between objects in a sequential order. i.e., the order in which these interactions takes place.

Q6 what is Collaboration Diagrams?

Solⁿ It is also known as communication diagram.

It is an illustration of the relationships and interactions among software objects in the UML.

These diagrams can be used to portray the dynamic behavior of a particular use case and define the role of each object.

Q7 Define statechart diagram.

Solⁿ Statechart diagrams are useful to model the reactive systems.

Q.2 What is meant by implementation diagram?

Solⁿ Implementation diagrams are used to describe implementation information. They describe the composition and layout of hardware, software system division, and functional realization from the system level.

→ Physical structure like how that system will work.

You can also say it as a topology.