Aim:- To study object diagram.

Theory:-

- Object diagrams are derived from class diagram so object diagrams are dependent upon class diagrams.
- Object diagrams represent an instance of a class diagram. The basic concepts are similar for class diagrams and object diagrams.
- Object diagrams also represent the static view of the system but this static view is a snapshot of the system at a particular moment.
- Object diagrams are used to render a set of object and their relationship as an instance.

- Purpose of Object Diagrams.

The purpose of diagrams should be understood clearly to implement it practically. The purpose of object diagram are similar to class diagrams.

The difference is that a class diagram represents an abstract model consisting of classes and their relationship. However an object diagram represents an instance at a particular moment

which is concrete in nature.

The purpose of object diagram can be summarized as -

- Forward & reverse engineering.
- Object Relationship of a system.
- Static View of Interaction.
- Understand object behaviour & their relationship from pratical perespective.

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Aim:- To study Deployment diagram.

Theory:-

- Deployment diagram are used to visualize the topology of the physical components of systems, where the software components are deployed.
- Deployment diagram are used to describe the static deployment view of a system.
- Deployment diagrams consist of nodes and their relationships.

Purpose of Deployment Diagram:

- The term deployment itself describes the purpose of diagram.
- Deployment diagram are used for describing the hardware components where software components are deployed component diagram & deployment diagram are closely related.
- Diagram shows how they are deployed in hardware
- Component diagram are used to describe the components and deployment diagram show how they are deployed.
- Where software components are deployed component diagram and deployment diagram are closely related.

- UML is mainly designed to focus on the software of system.
- Most of UML diagram are used to handle logical components but deployment diagram are made to focus on the hardware topology of a system.
- The purpose of deployment diagrams can be described -
  - Visualize the hardware components a system.
  - Describe the hardware components used to deploy S/w components.
  - Describe runtime processing nodes.

Aim - To study Component Diagram.

Theory -

- Component diagrams are different in terms of nature and behaviour
- component diagrams are used to model the physical aspects of system
- component diagrams are used to visualize the organization and relationships among components in a system. These diagrams are also used to make executable systems.

Purpose of component diagrams -

- component diagram is a special kind of diagram in UML -
- The purpose is also diffent from all other diagrams discussed so far.
- It does not describe the functionality of the system but it describes the components used to make those functionalities.

Thus from that point of view, component diagrams are used to visualize the physical components in a system.

- These components in a libraries, packages files, etc.

- component diagrams can also be described as static implementation view of a system.
- the purpose of component diagram can be summarized as -

  - visualize the components of system
  - construct executable by using forward and reverse engineering.
  - describe the organization and relationships of components.