

## Bruegge 99, Modeling with UML, Chapter 2

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Quiz No. 1 – Answer Key

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1. What is the main purpose of each of the following diagrams? ( 7 points )

- Use case diagram:
  - Represent the functionality of the system
  - Represent the behavior of a system from an external point of view
  - Define the boundaries of a system, that is, make a difference between the tasks done by the system and the tasks done by its environment
- Class diagram:
  - Describe the structure of the system, in terms of objects, classes, attributes, operations, and their associations.
- Sequence diagram:
  - Formalize the behavior of the system
  - Visualize communication among objects
- State chart diagram:
  - Describe the behavior of an individual object as a number of states and transitions between these states.
- Activity diagram:
  - Describes a system in terms of activities
  - Represent the data and control flow through a system

2. What is the importance of modeling in software engineering?

- Dealing with complexity
- Constructing an abstraction of the system that leaves out irrelevant details
- Communicating with users and peers