**UML**

modeling language to provide a standard way to visualize the design of a system

UML 2 has many types of diagrams, which are divided into two categories.

**Structure diagrams** emphasize the things that must be present in the system being modeled.

Eg: **Class diagrams**

To create and evolve a design class diagram, you need to iteratively model:

Classes

Responsibilities

Associations

Inheritance relationships

Composition associations

Interfaces

**Behavior diagrams** emphasize what must happen in the system being modeled.

Since behavior diagrams illustrate the behavior of a system, they are used extensively to describe the functionality of software systems.

As an example, the **activity diagram** describes the business and operational step-by-step activities of the components in a system.

**Use case diagrams**

**Interaction diagrams**, a subset of behavior diagrams, emphasize the flow of control and data among the things in the system being modeled.

For example, the **sequence diagram** shows how objects communicate with each other in terms of a sequence of messages.

Sequence Diagram

