**Lab Assignment: 2**

**Object:** To draw the ***USE CASE* Diagram** for the ***Hotel Management.***

**Introduction:**

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.

Now as we have to discuss that the use case diagram is dynamic in nature there should be some internal or external factors for making the interaction. These internal and external agents are known as actors. So use case diagrams are consists of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system.

**Purpose:**

The purpose of use case diagram is to capture the dynamic aspect of a system. But this definition is too generic to describe the purpose.

So in brief, the purposes of use case diagrams can be as follows:

* Used to gather requirements of a system.
* Used to get an outside view of a system.
* Identify external and internal factors influencing the system.
* Show the interacting among the requirements are actors.

**Drawing Use Case symbols**:

Use Case symbols define instances. When representing an instance, we:

* Draw use case symbols
* Name the symbols
* Draw the actor symbols
* Label the actor symbols
* Link use case and actor symbols with communications and extends

An **Actor** is a user of a system in a particular role.

A **Use Case** is a task that an actor needs to perform with the help of the system.

**Associates** are used to connect the Actor and Use case.

**System Boundary Box** is used to bind the Use Cases in a rectangular box.



**Actor Use Case Associates Boundary Box**

**When to use a Use Case Diagram:**

When describing requirements for a system in the analysis, design, implementation and documentation stages.

Use case diagrams specify the events of a system and their flows. But use case diagram never describes how they are implemented. Use case diagram can be imagined as a black box where only the input, output and the function of the black box is known.