

# NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES

## Software Design and Architecture (SE220)

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### Lab Session # 03

#### Outline

- Getting to know the Use Case diagram
- Introducing the Use Case Diagram
- Where to find the Use Case Diagram
- Elements of Use Case Diagram
- Partial Use Case Context Diagram
- Extends
- Generalization
- Exercise

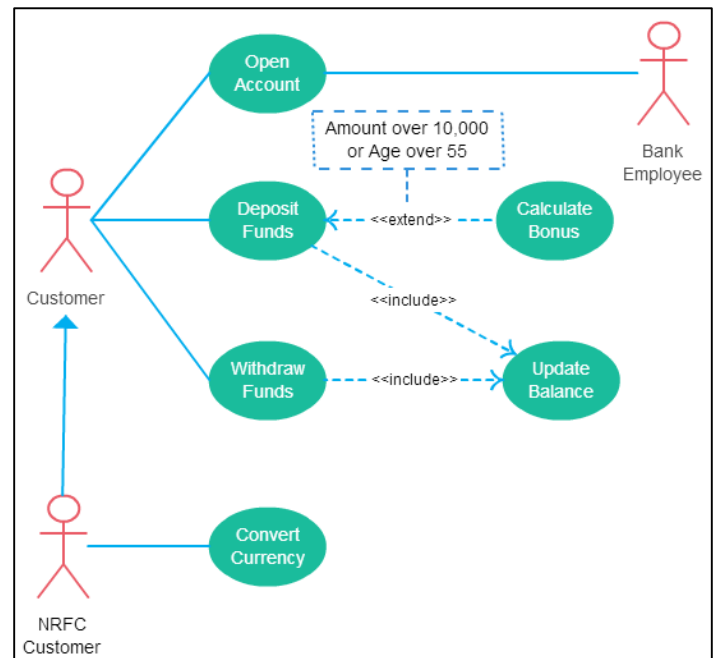
#### Getting to know the Use Case diagram

The Use Case diagram is one of the Unified Modeling Language (UML) Behavioral diagrams that can be used to describe the goals of the users and other systems that interact with the system that is being modeled.

They are used to describe the functional requirements of a system, subsystem or entity.

#### Usage of the Use Case Diagram

The Use Case diagram is used to describe the goals that users or other systems want to achieve from interacting with the system.

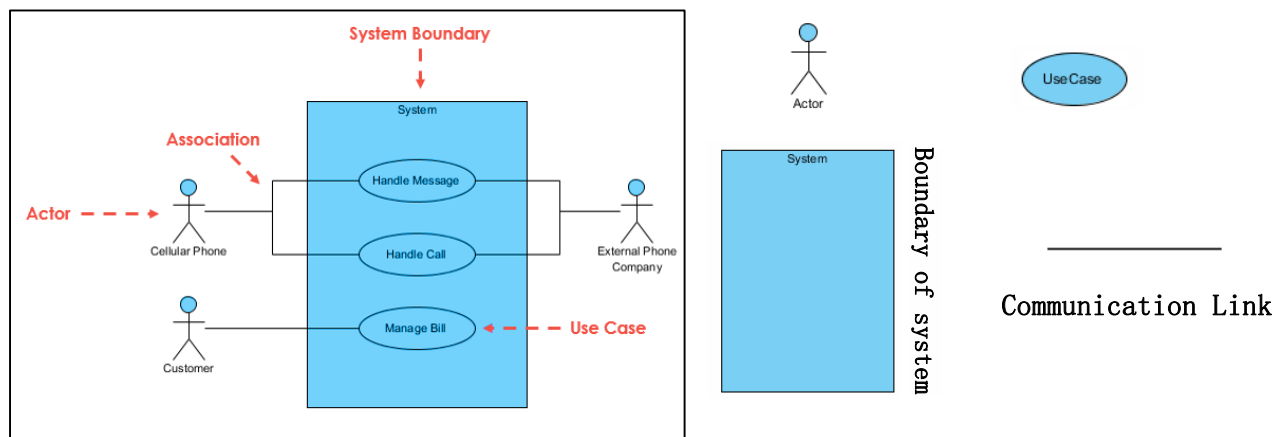


#### Where to find the Use Case Diagram

- Ribbon: Design > Diagram > Insert > UML Behavioral > Use Case

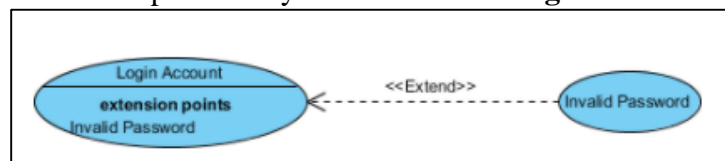
- **Project Browser** Toolbar : New Diagram icon > UML Behavioral > Use Case
- Project Browser context menu | Add Diagram... > UML Behavioral > Use Case

A standard form of use case diagram is defined in the Unified Modeling Language as shown in the Use Case Diagram example below:



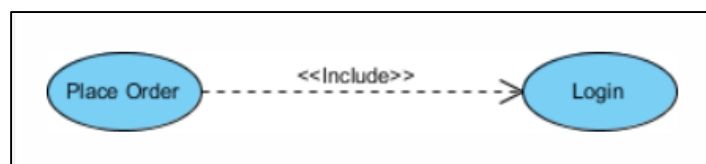
### Extends

- Indicates that an **"Invalid Password"** use case may include (subject to specified in the extension) the behavior specified by base use case **"Login Account"**.



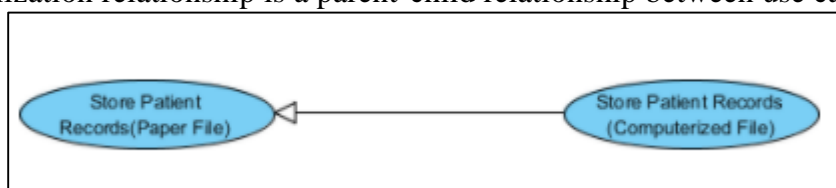
### Include

- A uses relationship from base use case to child use case indicates that an instance of the base use case will include the behavior as specified in the child use case.



### Generalization

- A generalization relationship is a parent-child relationship between use cases.



## **Use Case Examples**

### **Food Ordering System**

Online Ordering System is a modern platform that enables you to manage food delivery business activity efficiently. Restaurant takeout and delivery are taking a bite out of dining traffic, making it easier for customers to search for a favorite restaurant, filter cuisines, choose from listed items, and choose doorstep delivery or pick-up. Online ordering systems generally consists of 2 main components. First is a website or mobile app for hungry customers to view the restaurant's dishes and place an online order. Second is an admin management interface for the restaurants to receive and manage the customer's orders. A customer is able to order meal from Online ordering systems. This online food can be used by customer or manager as user that behave as a particular Actor. There are several key steps, for ordering the favorite meal. First they need to login their account with web application using their email id and they see the multiple options in different category and From the listed category they can choose Food item as many as they want. There is very important restrictions, user cannot order the meal without logged in, and that means logged in activity must be included with associated actor. System will take a proper confirmation regarding address and payment details. In this Food Online System there is two options, payment can be made by credit card PayPal or many order options like QR-code. In this system user cannot proceed their order without selecting particular payment method.

### **Basic steps for making use case on Eclipse-Papyrus.**

Go to File other and create Papyrus Project with selective use case diagram.

1. Select "Package" from node palate.
2. Drag three different Actor
3. Drag Four different use cases
4. Create Relation between use cases and Actor.
5. Identify Include and Extends relation nature.

