

# Faculty of Computing

Year 2 Semester 1 (2025)

SE2030 - Software Engineering

Lab Sheet 03

## Use Case Diagram

**Lab Duration:** 2 Hours

**Objective:** In this lab, you will learn to identify use cases, actors, and their relationships, and draw appropriate Use Case Diagrams to model given scenarios.

### Software Tool

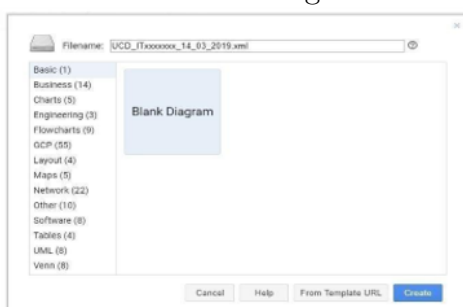
We will be using Draw.io (<https://www.draw.io>) to draw the Use Case Diagrams.

### Instructions to Use Draw.io

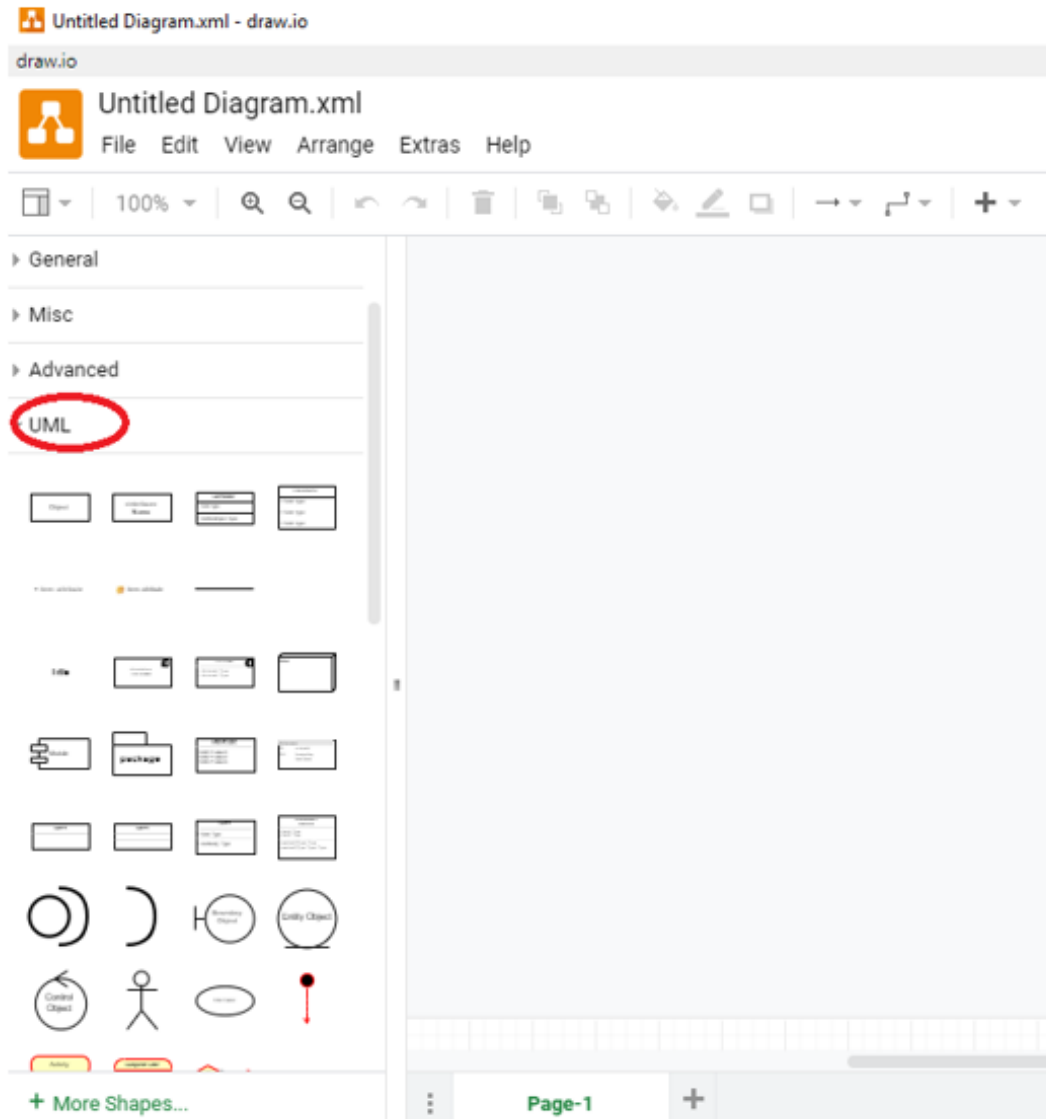
1. Visit <https://www.draw.io>.



2. Select 'Create New Diagram'.
3. Enter a file name using the following format: UCD\_ITxxxxxxxx.DD\_MM.YYYY.



4. Choose 'Basic → Blank Diagram', then click 'Create'.
5. From the left sidebar, select the 'UML' category.
6. Use appropriate UML notations to draw your Use Case Diagram.

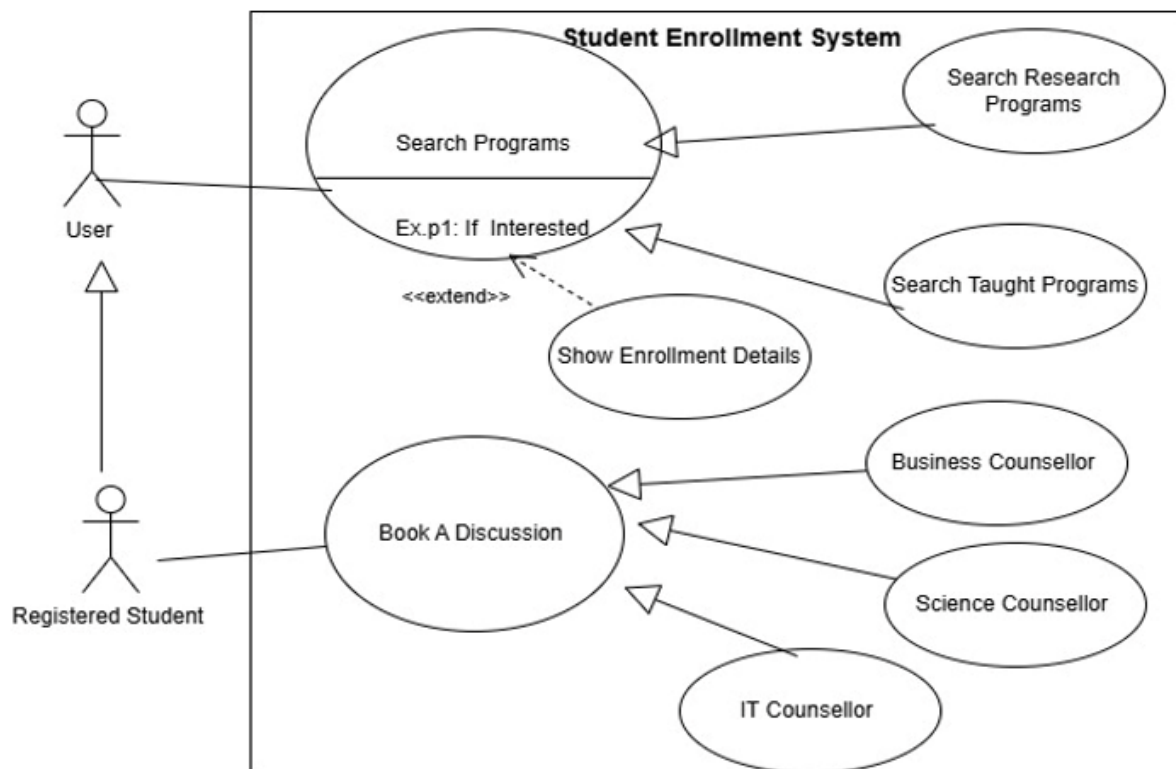


## Practice Activity

You have been given a sample use case diagram for the following scenario. Recreate this diagram using Draw.io.

St John York University “is a famous UK based university that supports students who seek postgraduate courses in UK. Any person can search for available postgraduate by giving their age, current qualification, area of study, and study level. So, this search can be extended to the two types called research programs and taught programs. In searching, if the user needs, the system will show the enrollment requirements including language requirement.

Registered student can book a discussion with the counselors 'based on their expertise areas. Counselors may categorize into three types according to their expertise areas. They are IT, business, and science. Additionally, a registered student has access to all the features available to a normal user.



## Group Project Task and Submission

1. Form your pre-assigned 6-member groups.
2. Use the same project topic assigned to you in the previous lab.
3. Design and draw a complete Use Case Diagram for your project, covering all major functions and users.
4. Each group member must write a comprehensive use case scenario for their assigned function.
5. Compile a Group Report including:
  - (a) Group ID, Topic Name, and Group Members
  - (b) Complete Use Case Diagram
  - (c) Individual Use Case Scenarios (mention member name and registration number)
  - (d) Submit your report via GitHub before the deadline. File Name Format: Batch-Number\_GroupID\_Usecase.pdf

### Submission Checklist

- Group Details
- Use Case Diagram
- Use Case Scenarios (one per member)
- Clear and structured report format
- File uploaded to GitHub with correct naming format

## Self-Study Activity

### Draw the Use Case Diagram using draw.io for the ‘TasteBuds Catering System’

“TasteBuds (TB)” is a new restaurant at Malabe. TB needs a system to track the customers and their orders. You as a System Analyst is asked to come up with the design models for TasteBuds Catering System (TBCS).

A customer can place orders through TBCS. If the customer is a registered customer, he will be given a discount from the total bill amount depending on how many orders he has placed during the month. The orders placed will be given a number which indicates the queue position of that order. The current serving order number will be displayed on the system main page.

The order numbers together with the order details will be sent to the Head Chef (HC) to prepare the order. Based on the details, HC will prepare the order as a normal order or a priority order. The HC will assign one or few chefs for the order and will estimate the time taken for the order.

Once the order is prepared, the order will be delivered by the delivery staff. The Delivery manager will assign the delivery staff for a particular order considering its category. For example, a priority order will be assigned a vehicle and a driver within 10 minutes of the time the order is ready, while the normal order delivery is assigned based on the availability of the vehicles and drivers.

To be a driver at TB, one needs to have a valid driving license. The driving license details will be stored in the TBCS for security purposes. When a delivery is handed over to the driver, he must use the TBCS on his mobile phone and check out the delivery with the order number and his driving license number.

Once the delivery is handed over to the customer, s/he can mark the order has been delivered through the TBCS system. Later, the customer can give a rating to the order and also give his comments or suggestions if s/he is not satisfied with the order

### **For your Additional Information**

#### Use case Scenarios

There are several online and other software's available, to write the use case scenarios. “Visual Paradigm” software is one of them. Below screenshots are taken from the software and you can try writing use case scenarios using similar software.

## take a physical examination

Info
Use Case Notes
Flow of Events
Details
Requirements
Diagrams
Test Plan
References
Description

Rank: Unspecified ^ v  
ID: UC-2  
Status: Identify Next  
Justification:  
Primary Actors: Prospective Student ...  
Supporting Actors: ...  
Task Pool: Link to...  
Description:  
B F +  
☐ Abstract ☐ Leaf ☐ Root

### Basic information of use case

Info
Use Case Notes
Flow of Events
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References
Description

#### Scenario

1.Fill in physical examination form  
1.1.Download the physical...

1. Fill in physical examination form  
1.1. Download the physical examination from the student visa website  
1.2. Double check filled information  
1.3. Make a cheque for medical fee  
2. Call a physician to reserve an appointment  
3. Arrive at the clinic at the scheduled time  
4. Follow the instruction of physician and X-ray physician  
4.1. Perform general physical examination  
4.2. Perform detailed physical examination  
4.3. Perform urine test  
4.4. Perform X-ray check

#### Extension:

3.a. For those who are late for physical examination  
1. Reschedule appointment with the physician  
2. Make an appointment with another physician  
<Type here to add an extension without any parent>

### Flow of events of use case