



B.Sc. in Computer Science and Engineering
School of Science and Technology
Bangladesh Open University

Information System Analysis and Design Lab [CSE22P5]

Lab Report – 02

Submitted By:

Name : **MOJAHIDUL ALAM**
Student ID : **20-0-52-801-021**
Course Code: CSE22P5
Course Title : Information System
Analysis and Design Lab

Signature :

Submitted To:

SAMRAT KUMAR DEY
Lecturer (Computer Science)
School of Science and Technology
Bangladesh Open University

Signature :

Date of Submission: 15 Mar 24

Experiment No: 02.

Date: 08 Mar 24.

Name of the Experiment: Consider the following scenario and design a use case diagram of 'Appointment to a Doctor' using any suitable diagramming software (i.e. Wondershare EdrawMax). Also indicate different elements of the diagram:

A patient calls the clinic to make an appointment for a yearly checkup. The receptionist finds the nearest empty time slot in the appointment book and schedules the appointment for that time slot. There should be facilitated with cancellation of appointment by the patient or scheduler, patient's previous record accession by the scheduler or doctor as additional, bill deviation on the basis of insurance and add anything else you judge essential for the system.

Objective:

- Analyze the appointment scheduling process within a healthcare system.
- Identifying elements like actors, understand use cases, and depict relationships for effective communication of system requirements.
- Design a use case diagram depicting interactions between actors and system functionalities.

Theory: The terminologies relevant to Use Case Diagram are –

- i. **Use Case Diagram:-** A use case diagram is a visual representation that illustrates how users interact with a system and the various functionalities the system provides.
- ii. **Actor:-** Actors represent the external entities (such as users or systems) that interact with the system being modeled. They are depicted as stick figures or labeled rectangles outside the system boundary.
- iii. **Boundary:-** The system boundary represents the scope of the system being modeled. It separates the system from its external environment and encloses all the use cases.

- iv. **Use Case:-** A use case represents a specific functionality or behavior that the system provides to its actors. It describes a sequence of actions that accomplish a goal for a user. Use cases are depicted as ovals within the system boundary.
- v. **Generalization:-** Generalization represents an "is-a" relationship between use cases or actors. It allows you to capture commonalities and differences between them. A child use case or actor inherits the behavior of its parent use case or actor.
- vi. **Include:-** Include relationship indicates that one use case includes the behavior of another use case. It is used when one use case requires the functionality of another use case to accomplish its goal.
- vii. **Extend:-** Extend relationship signifies that one use case may optionally extend the behavior of another use case under certain conditions. It is used when additional behavior may be optionally added to a base use case.

Required Tools and Software:

- Wondershare EdrawMax (for designing the diagram)
- MS Word (for writing and furnishing)

Execution:

- ☐ Drawing the diagram using Wondershare EdrawMax
 - Launch Wondershare EdrawMax and create a new blank diagram.
 - Use symbols and connectors to represent interactive sections.
 - Arrange sections logically and add labels & texts for clarity.
 - Review and revise the flowchart as needed.
- ☐ Formatting the Report using MS Word
 - Open MS Word and create a new document.
 - Set up layout and formatting preferences.
 - Type content for each section.
 - Organize content with appropriate headings and subheadings.

- Insert the use case diagram from Wondershare EdrawMax and align it with the corresponding section.
- Review the entire document for coherence and professionalism.

Output:

