

# Assignments: SE and UML

## **Overview:**

This assignment has four exercises, each for around 30 minutes. You are expected to complete the course/ reference reading before attempting the exercise. On completion of the exercises, you will be able to create and alter the tables using DDL commands.

### **SE and UML**

**Exercise 1:** To Identify the different phases of an end-to-end Product Development model

Prepare a document to cover on all the phases of Waterfall model to develop an end-to-end Product and the scope of each phase.

**Recommended duration:** 30 minutes

**Exercise 2:** To Prepare a Detailed Software Requirements Specification Documents

Prepare the DSRS document for the e-Library system and document the below data:

- i) Scope and Objective of the Project
- ii) Functional Requirements
- iii) Non-functional Requirements

**Recommended duration:** 30 minutes

**Solution Guidance (if applicable):** Refer DSRS Template

**Exercise 3:** To Prepare a Use case model of a System

Prepare a Use-case diagram for the e-Library system.

- Identify the Actors
- Identify the Use cases
- Identify the Generalization/Specialization relationship in Actors
- Identify the Include/Extend relationship in Use cases

**Recommended duration:** 30 minutes

**Solution Guidance (if applicable):** Refer Use Case Diagram UML Notations

**Exercise 4:** To Prepare a Class model of a System

Prepare a Class diagram for the e-Library system.

- i) Identify the Classes and Interfaces
- ii) Identify the Association, Generalization/Specialization, Aggregation/Composition and Realization relationship

**Recommended duration:** 30 minutes

**Solution Guidance (if applicable):** Refer Class Diagram UML Notations