**Department of Computer Science**
University of Engineering and Technology, Lahore

# Business Application Project Details

**Objective:** The objective of this project is to develop a business application by applying the concepts learned until the 8th week of the course. The project should be completed within the given deadline. Students are required to include a clear class diagram and write a project document that outlines the implementation details.

**Project Requirements:**

1. Incorporate all the concepts studied until the 8th week into the application.
2. Follow C# coding practices and adhere to industry-standard coding conventions.
3. Utilize the following object-oriented programming (OOP) concepts:
    - Classes, Constructors, Lists
    - Association: Establish relationships between classes to represent connections or dependencies.
    - Inheritance: Create class hierarchies to inherit properties and behaviors from parent classes.
    - Polymorphism: Implement the ability for objects to exhibit different behaviors based on their specific type or context.

**Design Pattern:** Utilize the following design patterns to ensure the proper organization and functioning of the application:

- Business Logic (BL): Implement the business rules and logic of the application.
- Data Access Layer (DL): Manage the interaction with data storage, such as databases or external APIs.

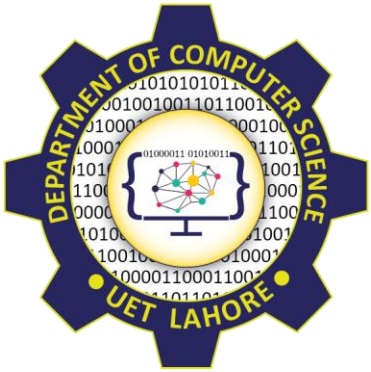
- User Interface (UI): Develop the user interface components for interacting with the application.

## Project Execution:

1. **CRC Diagram**: Create a clear and well-structured CRC diagram that illustrates the classes, their responsibilities, and the collaborations between them. The diagram should provide a visual representation of the project's design.
2. **Project Document**: Write a comprehensive project document that includes the following sections:
    - Introduction: Provide an overview of the project, its objectives, and its intended functionality.
    - OOP Concepts: Identify and explain how the project incorporates the concepts of association, inheritance, and polymorphism. Compare these concepts with traditional procedural programming approaches, highlighting the advantages of OOP.
    - Design Pattern Implementation: Describe how the project utilizes the BL, DL, and UI design patterns to ensure modularity and separation of concerns.
    - Class Details: Provide detailed explanations of the key classes and their responsibilities, along with code snippets if necessary.
    - Conclusion: Summarize the project and its achievements, highlighting any challenges faced and lessons learned.

**Use the following page as document title page.**

# You're Project Title




Session: 2022 – 2025

## Submitted by:

Your Name Your Registration No

## Submitted To:

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