Student Details

Repository Name	**DBS25P023**
Registration Number	2024-CS-23

Project	
Project Title	[**FacultyFlex**] Faculty Workload and Resource Allocation System
Executive Summary	The project is about developing a **Faculty Workload and Resource Allocation System** for the Department of Computer Science at the University of Engineering and Technology (UET) Lahore. The system aims to address the inefficiencies and challenges faced by the department in managing faculty workload, allocating resources, and handling faculty requests. Currently, the department relies on manual processes like spreadsheets and emails to track and manage workloads and resources, which results in several issues such as data inconsistency, workload imbalances, inefficiency in resource allocation, and delays in generating reports required for departmental planning and accreditation purposes. **Key Problems Identified** The main problems identified with the current system are: • **Workload Imbalance:** Faculty members are either overloaded with tasks or underutilized, making it difficult to distribute teaching and administrative responsibilities fairly. • **Tracking Issues:** Keeping track of teaching assignments, research supervision, and administrative duties manually is prone to errors and inconsistencies. • **Resource Allocation Complexity:** Assigning resources like classrooms, labs, consumables, and other teaching essentials is inefficient and unstructured. • **Faculty Requests Management:** Managing faculty requests for resources such as board markers, stationery, consumables, and lab equipment is cumbersome and lacks a systematic approach.

- **Security and Access Control:** The current system does not have robust security features, leading to concerns over unauthorized access and data integrity.

Objectives of the Project

The goal of the project is to develop a **Windows Form Application** that will automate and streamline the management of faculty workload, resource allocation, and faculty requests. The application will be backed by a relational database to centralize data and ensure its consistency and accuracy. The system will also introduce role-based access control and user authentication to improve security.

Key Features of the System

The application will feature:

1. **User Authentication & Role Management:** Secure login, password recovery, and role-based access for different users (Department Head, Faculty Members, and Administrative Staff).

2. **Faculty Management:** Capability to add, update, and manage faculty profiles and assign roles.

3. **Workload Assignment:** Allows for course assignments, final year project supervision, and tracking of administrative duties.

4. **Resource Allocation:** Manages allocation of classrooms, labs, and consumables, along with tracking faculty requests for these resources.

5. **Faculty Requests Management:** Enables faculty to submit and track requests for resources like markers, stationery, and lab space, which can be approved or rejected by authorized staff.