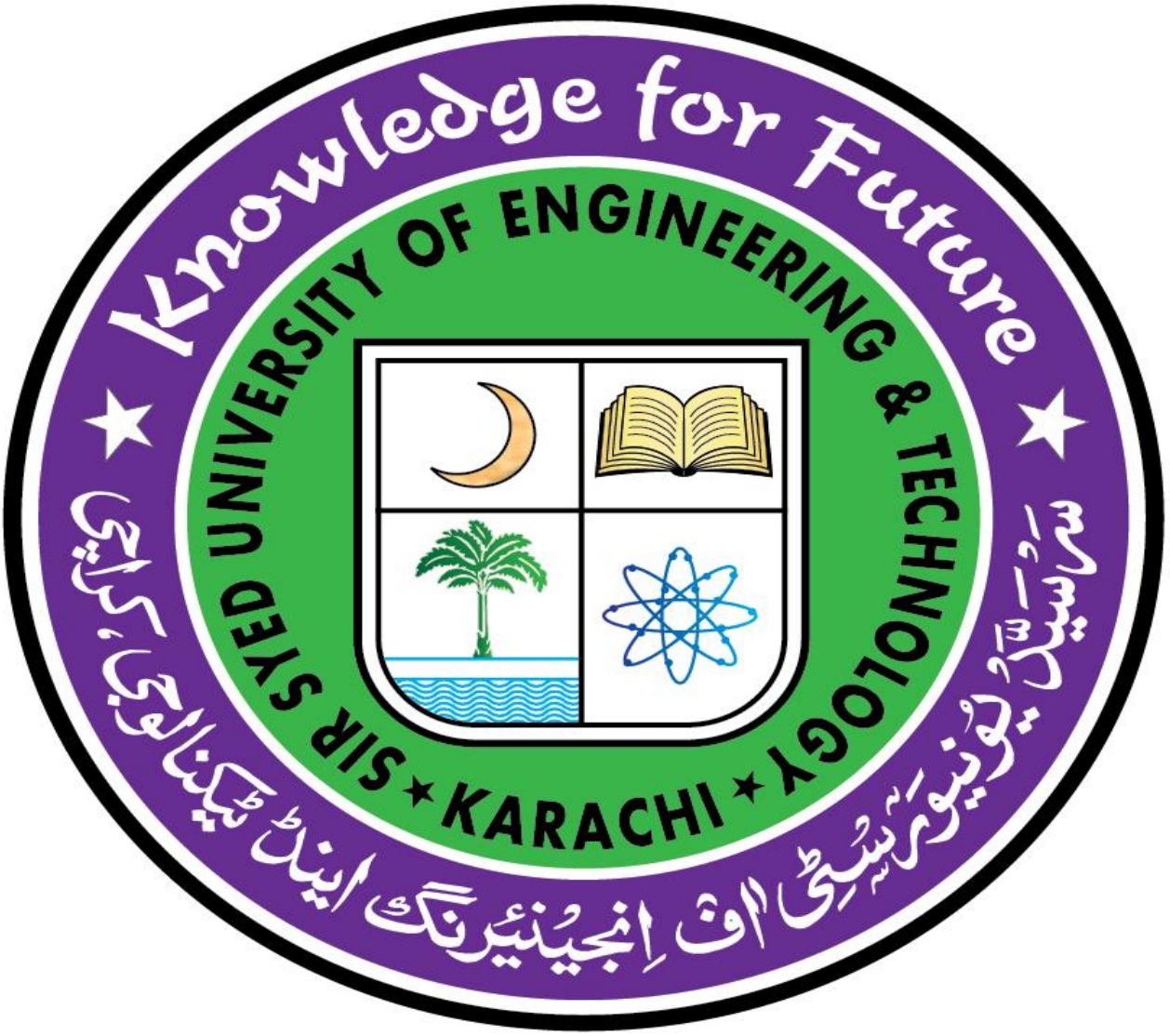
INFORMATION & COMMUNICATION TECHNOLOGIES
LAB PROJECT



To-Do List App with Session Management:

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1. INTRODUCTION OF THE PROJECT:

This project is a simple and useful web app called To-Do List. It helps users keep track of their daily tasks in one place. You can add new tasks, mark them as completed, and delete them when done. It also lets you set the priority level of tasks like low, medium, or high. The app is designed with a clean look and works on all screen sizes. It also includes filters to show all tasks, only completed ones, or only pending ones. There is also a dark mode to make it easier to use at night. The goal is to make task management simple and digital.

• PROJECT PURPOSE:

The purpose of this project is to help people manage their daily tasks better. Many people forget their to-dos or lose track of them. This app gives a digital way to remember everything in one place. It replaces the need for writing on paper and makes it easier to add and check tasks quickly. The app also helps users focus on important tasks by setting priority levels. It was created to solve the common problem of task management using easy and modern tools. It also gives practice in using real programming and design skills.

• PROJECT OBJECTIVE:

The main goal of this project is to create a working and easy-to-use web app for managing tasks. It should let users add, complete, and delete tasks. It also allows sorting tasks by priority and filtering them by their status. Another goal is to make the app simple and clean so that anyone can use it without difficulty. Through this project, the aim is to learn how web apps are built using both backend and frontend. It also teaches how to work on real-life problems using basic tools like Python, Flask, HTML, and CSS.

• DEVELOPMENT EFFORT TRIGGERED REQUIREMENT:

This project was started because many people need a better way to stay organized. Simple to-do apps help a lot in studies and work life. The idea was to make a tool where users can clearly see what they need to do and finish tasks on time. There was a need to make it easy, clean, and quick to use. That’s why only the most useful features were added, like adding tasks, marking as done, and filtering. The app also had to be visually nice and easy to use for everyone. These needs helped shape the features of this project.

2. Languages and Technologies used:

- Backend Language — Python
- Framework — Flask
- GUI/Frontend — HTML and CSS
- GitHub Uploaded Status — YES
- Deployed on Azure Status — YES

3. PLAN OF WORK:

- **Description or Idea of Project Activities:**

The core idea behind this project is to develop a user-friendly and aesthetically pleasing To-Do List application. This application aims to provide a simple yet effective way for users to manage their daily tasks, prioritize them, and track their completion. The design emphasizes a clean, intuitive interface with a pastel theme to enhance user experience and engagement.

Information Gathering:

To create this To-Do List project, information was primarily gathered through a detailed analysis of the provided project code. This involved understanding the application's structure, the logic implemented in the Flask backend, the design and layout defined in the HTML templates, and the styling applied through CSS.

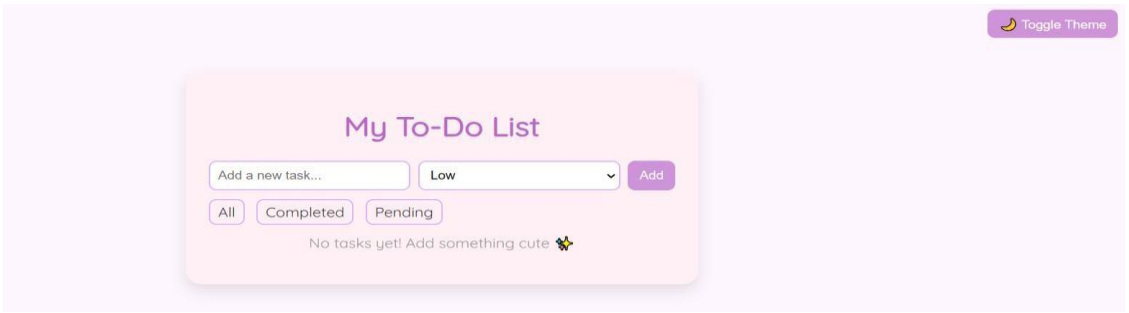
Group Members	Contribution of each person
Dua Fatima Ejaz	• Designed and implemented the front-end user interface (`templates/index.html`), focusing on user experience and interactivity • Developed the CSS styling (`static/css/style.css`) to create the pastel theme and ensure responsive design.
Nameera Imran & Kashaf Khan	• Gathered information, designing and implementing co-members. • Partial Work of Project Report Writing (Project Scheduling) • Database Backend Work. • Front Interface Designing (GUI).
Shaheer Jamal	• Developed and maintained the Flask backend logic (`app.py`), including task management (add, complete, delete), task filtering, and routing.

4. PROJECT REPOSITORY LINK:

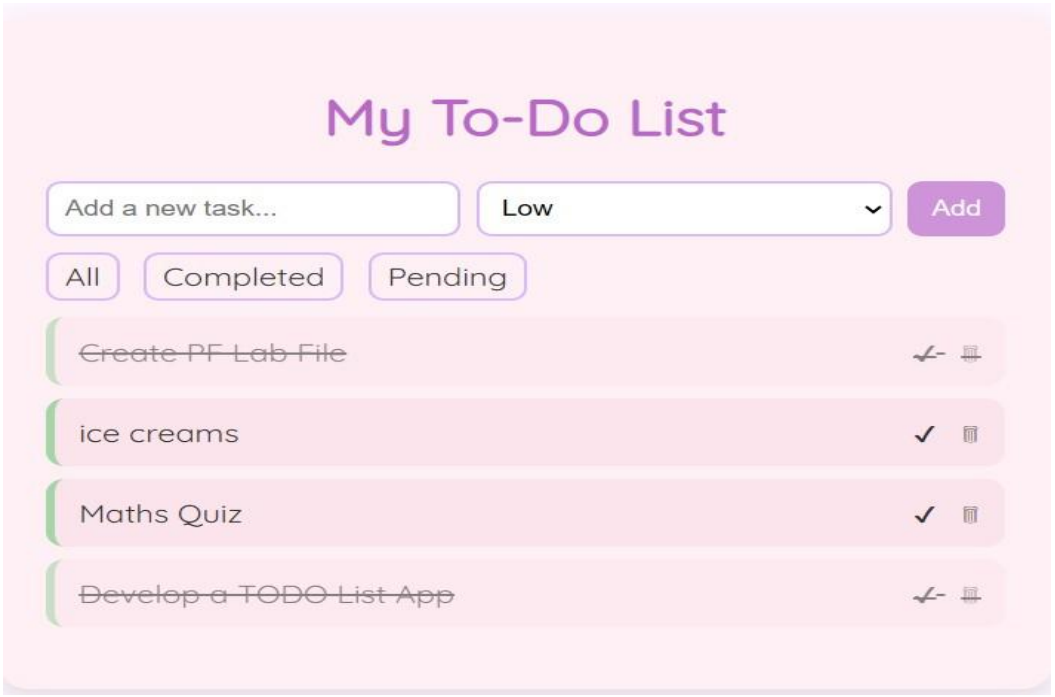
Here is the link of repo from where you can access the code of this project:
https://github.com/ShaheerJamalChishti90/ToDo-App_ICT-Project

5. USER GUIDE WITH SNAPSHOTS:

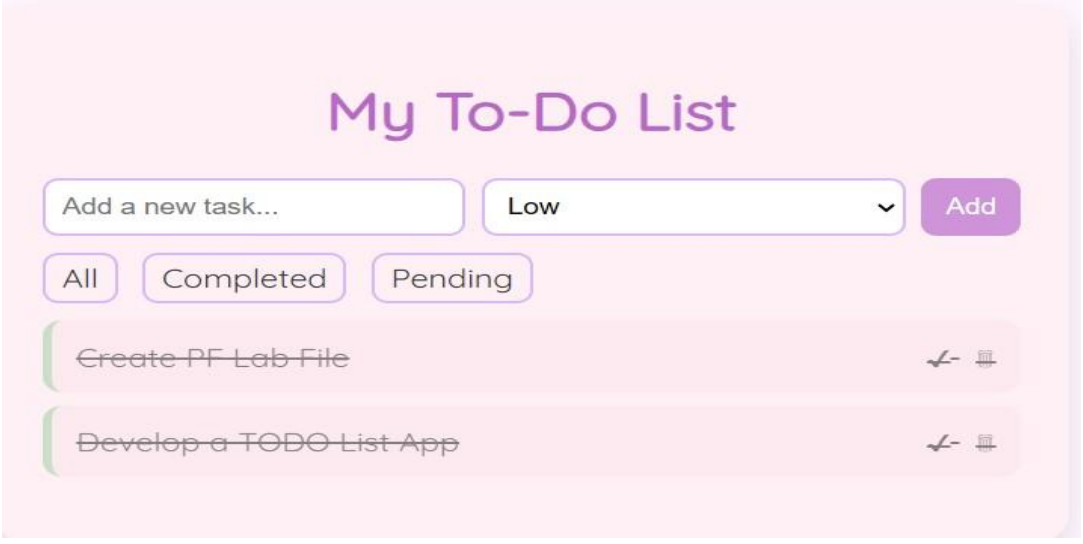
01- Landing Page – Initial Interface:



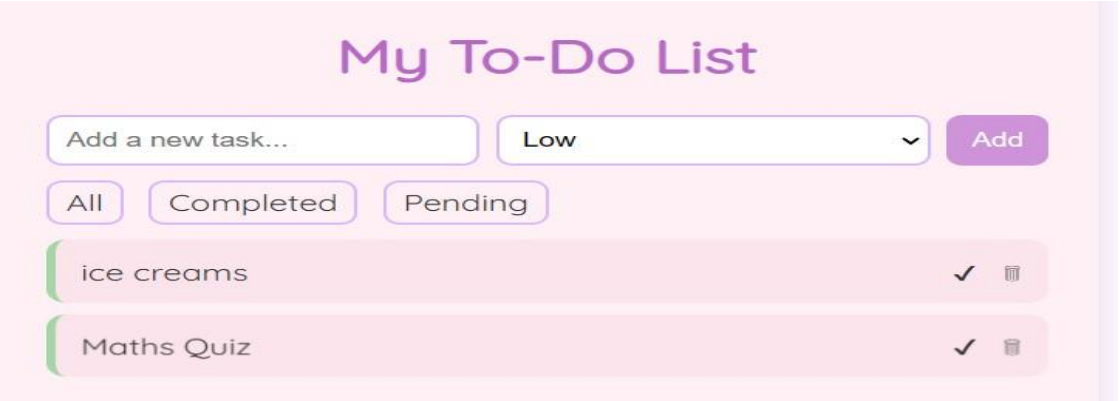
02 – Tasks Added to the List:



03- View Completed Tasks:



04 - View Pending Tasks:



6. CONCLUSION:

This To-Do List project helped us learn how to build a simple and useful web app using HTML, CSS, and Flask (Python). It lets users add tasks, set priorities, mark them as complete, delete them, and filter them easily. The design is clean and user-friendly, with a light/dark theme option. Even though it doesn't save data permanently yet, it shows how basic tools can create something helpful for daily life. Overall, it was a great learning experience and gave us a better understanding of how websites work.

7. FUTURE EXPANSION OF THE PROJECT:

The To-Do List app can be improved further by:

- Adding user login so each user has their own task list
- Integrating a database to save tasks permanently
- Allowing due dates and reminders for tasks
- Making the design responsive for mobile users
- Adding task editing and drag-and-drop reordering
- Deploying it online using platforms like Azure or Heroku
- Saving theme preferences for a personalized experience
- These upgrades will make the app more practical, user-friendly, and ready for real-world use.