

# INTRODUCTION:

- NAME : TASHI VERMA
- UNIVERSITY ROLL NUMBER : 2300290120260
- Branch: Computer Science
- Year: 2
- SECTION :D

## Project Report: To-Do List Application

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### 1. Introduction

The To-Do List application is designed to help users manage tasks efficiently. With features like adding, editing, and deleting tasks, along with the ability to mark tasks as complete, the application aims to serve as a simple productivity tool. This project focuses on creating a reliable and easy-to-use interface for users to organize their activities effectively.

### 2. Objectives

The primary objectives of this project include:

- Developing a user-friendly **To-Do List** application where users can add, update, delete, and view tasks.
- Allowing users to mark tasks as completed, helping to keep track of their progress.
- Ensuring data persistence, so tasks remain saved even when the application is closed.

### 3. Scope of the Project

The scope of this project includes:

- Creating a **To-Do List** application for managing daily tasks.
- Designing a basic but intuitive UI for ease of use.
- Implementing persistent storage to save tasks locally.

### 4. Methodology

The project was developed using an **Agile methodology** with the following phases:

1. **Requirement Gathering:** Outlined the core features for the To-Do List application.
2. **Design:** Created a simple UI design and data structure to support task management.

3. **Implementation:** Built and tested each feature incrementally.
4. **Testing:** Ensured each feature worked as expected, following unit and integration testing.
5. **User Feedback:** Gathered feedback from potential users to refine the interface and functionality.

## 5. Design & Implementation

- **Technology Stack:** This application was developed using **C#** with a .NET framework for a **HTML, CSS, and JavaScript** for a web-based version.
- **Key Features:**
  - **Add Task:** Allows users to add new tasks.
  - **Edit Task:** Enables modification of existing tasks.
  - **Delete Task:** Allow users to remove tasks from the list.
  - **Mark as Complete:** Provides an option to mark tasks as completed.
- **User Interface (UI):** Designed a clean, simple interface where tasks can be viewed in a list format, with easy access options for adding, deleting tasks.

## 6. Testing

- **Unit Testing:** Conducted tests on each feature (add, edit, delete, mark as complete) to ensure they work individually without errors.
- **Integration Testing:** Ensured seamless operation among different components, such as the UI and database.
- **User Testing:** Received feedback from a small group of users to improve the UI and fix minor usability issues.

## 7. Challenges Faced

- **Error Handling:** Addressed potential issues, such as invalid task entries or handling empty fields, to improve the overall user experience.
- **UI Design:** Ensuring the UI was user-friendly and visually clear required multiple design iterations based on user feedback.

## 8. Conclusion

The To-Do List application met the project objectives by providing a reliable, easy-to-use platform for task management. Future enhancements could include adding **due dates** for tasks, **reminders**, and a **priority feature** to categorize tasks by importance.