



Project Report

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Introduction

This project is a functional clone of a clock application, designed to provide users with essential time management tools, including an alarm, world clock, timer, and stopwatch. Each feature has been thoughtfully implemented to ensure usability, accuracy, and reliability, with a user-friendly interface and seamless performance.

Alarm

The alarm feature allows users to set, enable/disable, edit, and delete alarms. Users can specify the time and the active days for each alarm. When the alarm triggers, it plays a sound and displays a notification with an option to stop the alarm. Users can enable or disable alarms using a toggle switch, and the app visually dims disabled alarms. The list of alarms is editable, and users can delete any alarm directly.

Clock

The clock feature displays the current time in different cities around the world. Users can view a list of predefined cities, each showing the local time for that city. The app automatically calculates and updates these times based on their respective time zones, ensuring the displayed times remain accurate.

Timer

The timer feature allows users to set a countdown for a specific duration. Once the countdown reaches zero, the app plays a sound and displays a notification indicating that the timer is complete. Users can start, pause, and reset the timer as needed, and a visual progress indicator shows the remaining time.

Stopwatch

The stopwatch feature enables users to measure time intervals. It includes controls for starting, pausing, and resetting the stopwatch. Additionally, users can record lap times, which are displayed in a list for easy review. The stopwatch provides precise timing and ensures lap times are clearly presented.