CSCI 5211 Mobile Comp. & Programming

Project Proposal: Task Master

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Report: Task Master

Introduction:

The goal of the To-Do List app is to help users manage their tasks effectively and effortlessly. Simple checkboxes in the app's user-friendly design enable users identify activities as full or incomplete at a glance, making task management easy. Users may add new activities without leaving the main page by tapping a floating button. This makes adding new tasks simple. The software has clever features to keep users organized, such swipe motions for easy task management and a dynamic save button that triggers when content is input. Swiping left on a task will remove it and provide a confirmation box to avoid inadvertent removals. Swiping right on a task will open an edit window.

Objectives:

➢ Creating a user-friendly application for managing tasks.
➢ Enable users to track task completion with simple checkboxes.
➢ Provide intuitive task management features like adding, deleting, and editing tasks.

Motivation:

To-Do List was developed because there was a need for a practical and easy-to-use tool to help organize daily tasks and boost productivity. With so many people juggling multiple responsibilities in today's fast-paced world, having a trustworthy task organizer app can significantly improve goal achievement and lower stress

levels. Conventional approaches, such as paper lists or simple digital tools, frequently lack features that simplify the process, like secure login, simple task addition, and gesture-based task management.

Through the resolution of these issues, the To-Do List app offers consumers a complete solution that is efficient, safe, and useful. The objective is to provide users with a straightforward, reliable, and easily navigable task management program so they can take charge of their schedules, boost productivity, and preserve a better work-life balance.

Project Description:

An Android device can benefit from the seamless experience provided by the To-Do List application, which is a task management tool that keeps users productive and organized. The app opens with a login screen that gives users the option to create an account or log in. This procedure is made to be easy to use and safe, utilizing Google Firebase to store personal data and authenticate users. Upon logging in, users are directed to the primary task management screen, where all of their tasks are prominently displayed along with checkboxes denoting the status of completion.

A floating action button makes it easy and quick to add new activities, and users may tick the box next to each job to designate it as done. The application has an intuitive and user-friendly design thanks to the usage of a dynamic save button that only activates when text is entered in the new task field. Using simple swipe movements, task management is made even easier: slide left to remove a task, which triggers a confirmation prompt to prevent inadvertent deletions; swipe right to amend a task through a popup window.

All task data is kept locally in SQLite for quick and easy data maintenance, while Firebase securely handles user account information. This combination offers a safe and adaptable task management environment. The main functions and organization of the To-Do List application are covered in this project description, which also shows how it provides a strong user authentication mechanism and an efficient task management procedure.

Requirements Specifications:

Functional Requirements:

➢ User Authentication:

Give users the option to sign up or log in on a login page.

Allow users to reset their passwords by including a "Forgot Password" feature.

➢ Task Management:

A floating action button lets users add new tasks.

Put in place checkboxes to indicate when a task is finished.

Add the ability to manage tasks with swipe gestures (swipe left to delete, swipe right to edit).

➢ Data Management:

For local task data storage, use SQLite.

For user authentication and user-specific data storage, utilize Google Firebase.

Non-Functional Requirements:

➢ Utilization

Make sure the UI is easy to use and intuitive, with features that are readily available and simple navigation.

➢ Safety

When storing data and authenticating users, employ secure techniques.

Put in place safe password handling and reset procedures.

➢ Scalability

Create the app with room for expansion in mind, allowing for the inclusion of new features and more cloud storage for data.
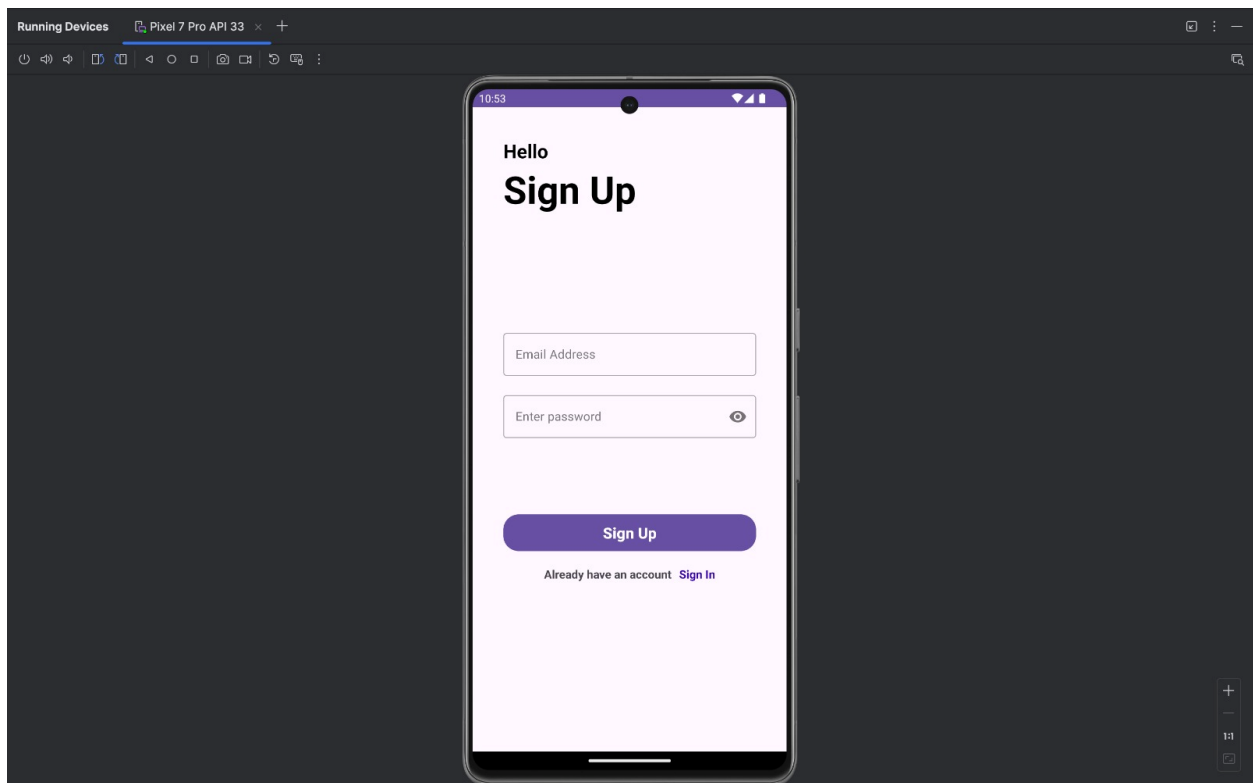
➢ Compatibility

It is necessary for the program to work with various Android devices and OS versions.

Technical Requirements

- ➢ Development Platform
  Use Android Studio for development.
- ➢ Programming Language
  Use Java for application development.
- ➢ External Services
  Integrate Google Firebase for user authentication and future task data storage.
- ➢ Local Storage
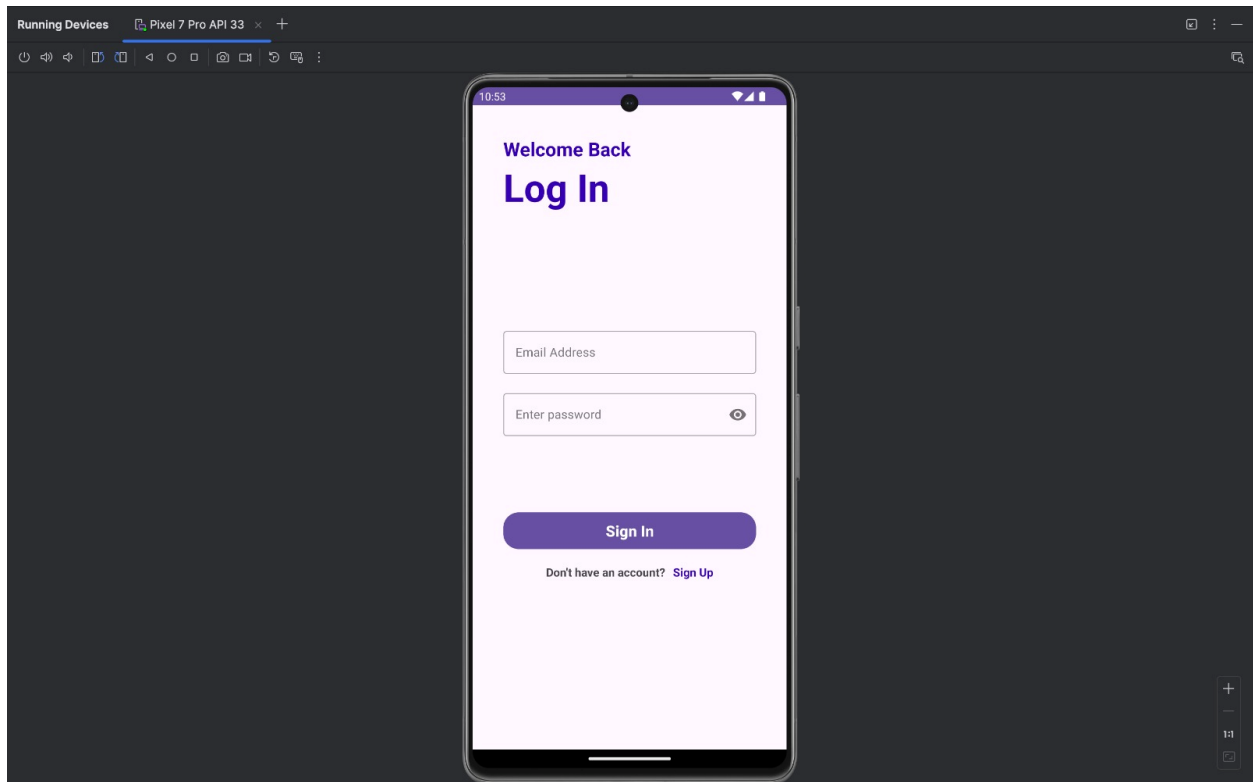 Use SQLite for initial task data storage.

Set Of Instructions:

- ➢ Sign up:
  We take email and password for signup. Once we click signup the data will
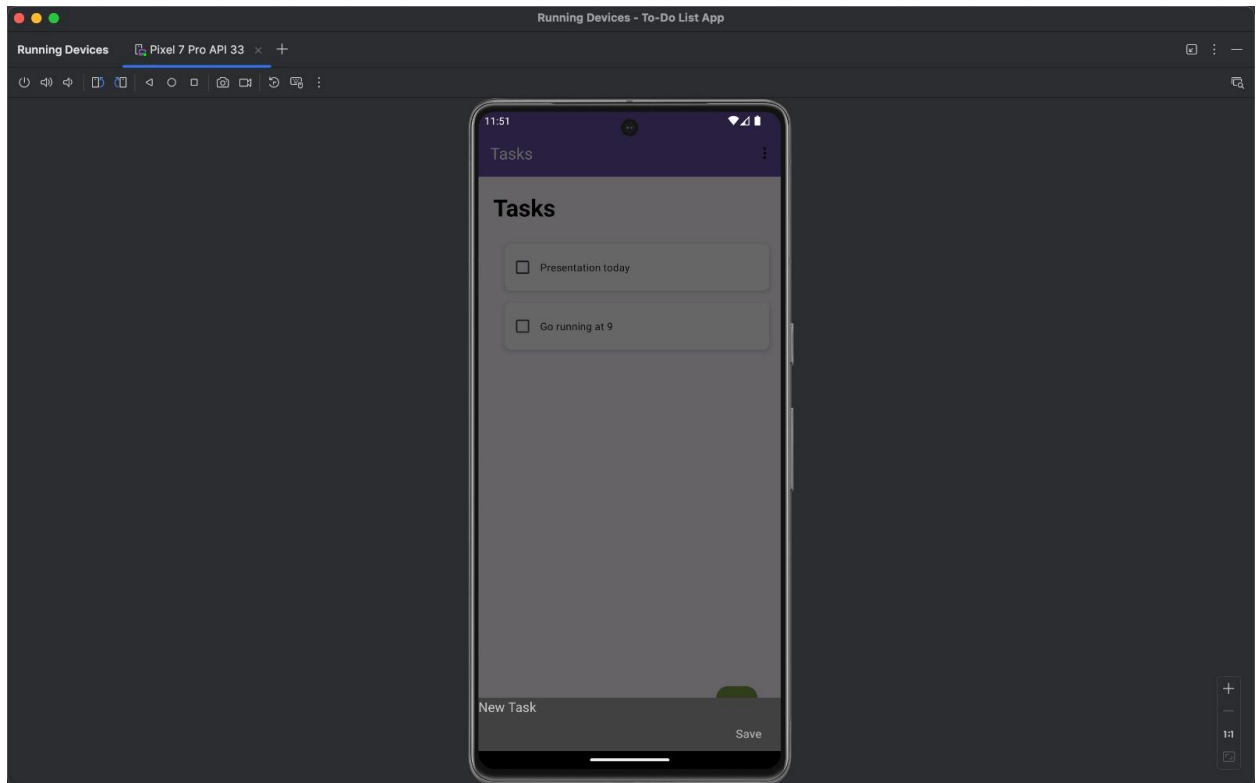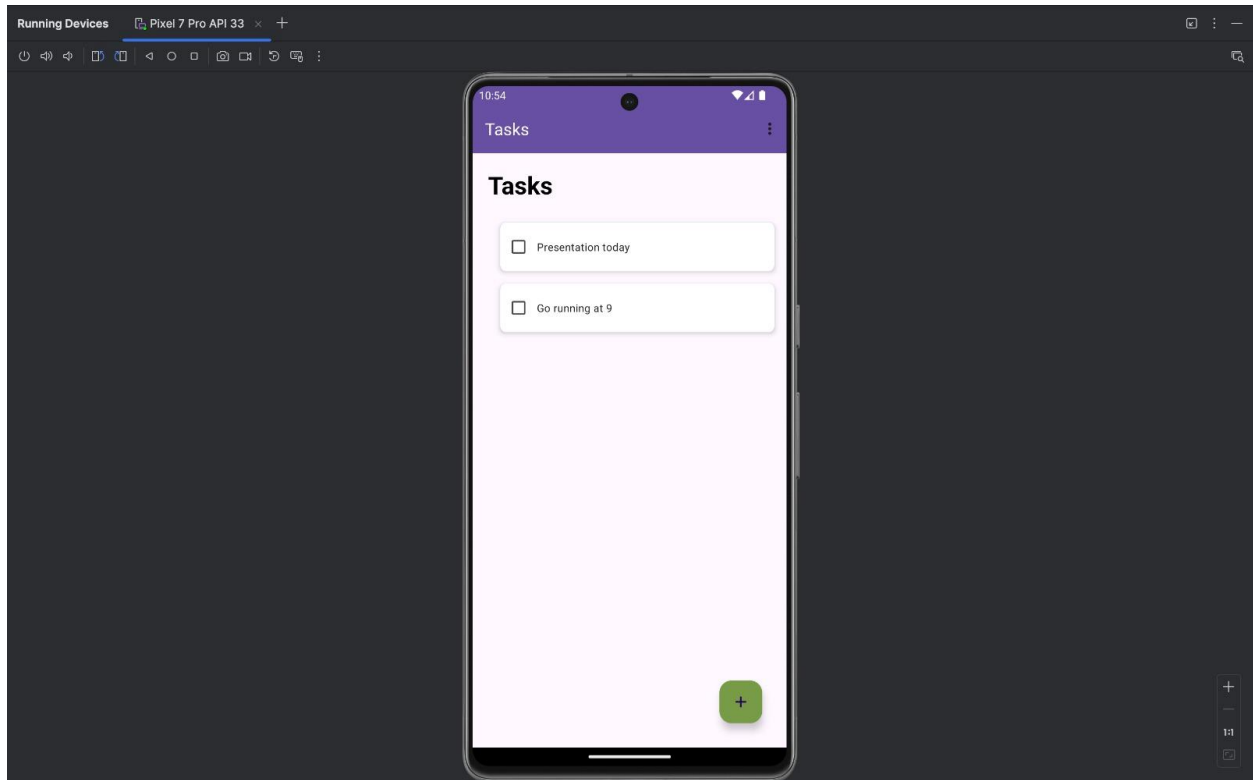 be saved in google firebase.

➢ Login:
   Once we are done with signup, it will take back to login page. Were use the login details to login.

➢ Add Task:
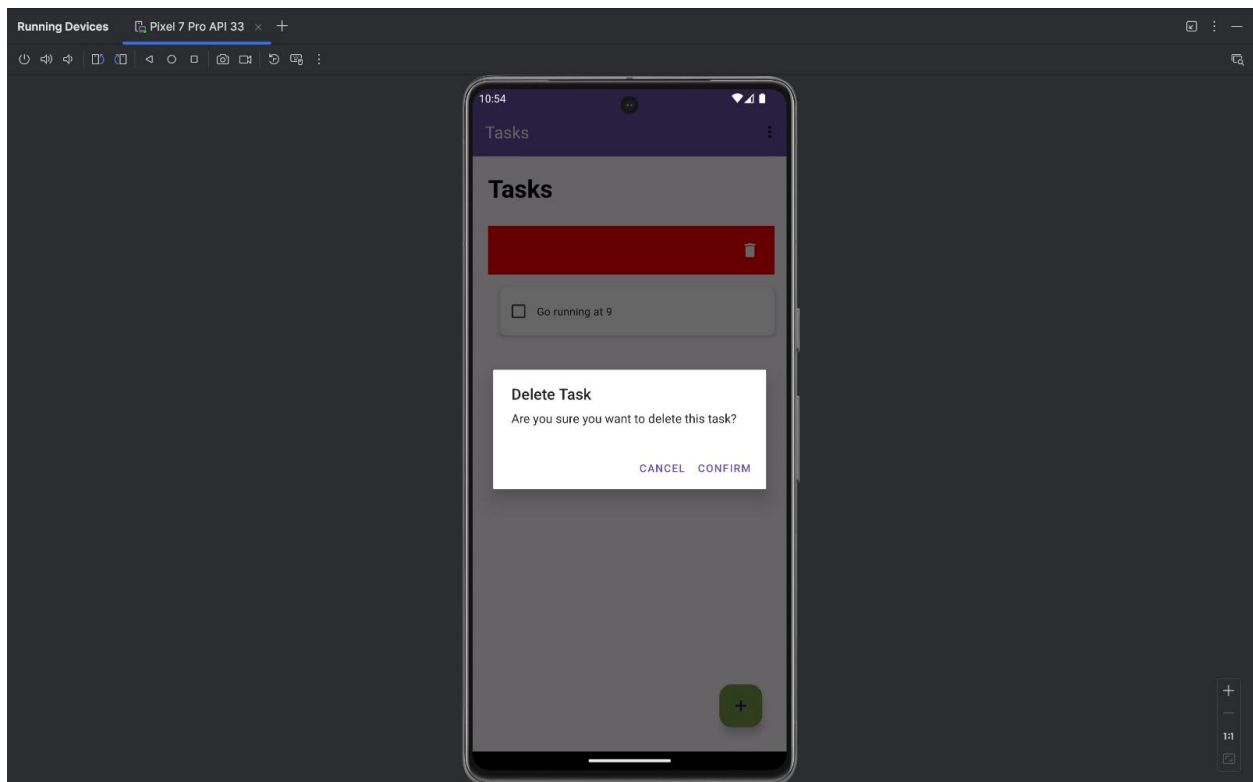 We have a floating-point button to add the task.

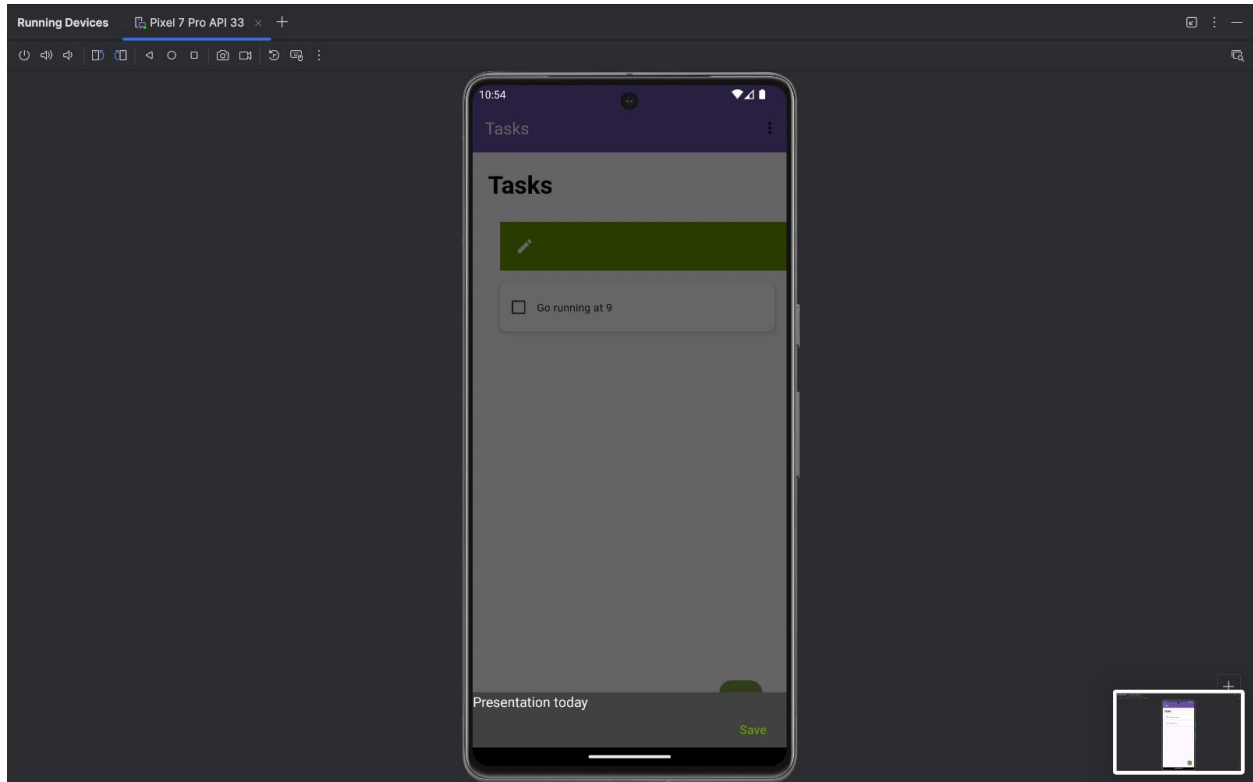After adding the task, the screen displayed is.

> ➤ Deleting a Task:
> If we swipe left on the screen we will be able to delete the task.

➢ Editing Task:
Scroll towards the right allows user to edit the task.

Results:

The To-Do List project's outcomes show how an Android device's user-friendly task management application can be implemented successfully. During testing, users were pleased with the app's user-friendly interface and functionality. They particularly liked how simple it was to add tasks, mark them as completed, and delete them with simple swipe gestures.

User data was safeguarded by the secure login system, which was supported by Google Firebase, and task data kept in SQLite offered dependable and effective storage. A simplified user experience was enhanced by the app's floating action button and dynamic save button. All things considered, the project succeeded in producing a straightforward, efficient, and safe task management application, and users have confirmed its usefulness in keeping them busy and organized in their comments.

Future Scope:

➢ Setting up a system that enables users to rank activities (high, medium, low) to concentrate on the most crucial tasks first.

➢ By offering users the option to classify tasks and manage them more effectively, this feature allows users to organize their tasks according to projects or types.

➢ Including the ability to assign deadlines for tasks would help users better manage their time and remember deadlines.

➢ Creating a system to provide users with timely reminders for tasks or deadlines will help them stay organized and not miss any significant occasions.

➢ Offering a safe and easy method for users to recover their account in the event that they lose their login credentials.

➢ This allows for cloud-based access and synchronization between various devices.

Conclusion:

The project successfully created a functional and user-friendly To-Do list application, designed to facilitate efficient task management. This application provides users with a straightforward interface, allowing them to quickly add, edit, or delete tasks with ease.