Objective -

The purpose of this project is to develop a functional Android mobile application that allows users to manage their tasks efficiently. The app enables users to add tasks with due dates, view them in categorized sections (Pending and Completed), and update their statuses in real-time. The overall aim is to help users stay organized, improve productivity, and demonstrate mobile development skills using Firebase and RecyclerView components.

Key Features

- **Task Listing**: Displays tasks in a scrollable list using RecyclerView.

- **Real-Time Status Update**: Tasks can be marked as completed or pending using a checkbox, and the status is updated in Firestore instantly.

- **Task Categorization**: Tasks are displayed in either the **Pending** or **Completed** section dynamically.

- **Detailed Task View**: Tapping a task opens a detailed view showing the task name, due date, and status.

- **Firebase Integration**: The app leverages Firebase Firestore for real-time data storage and retrieval.

CORE JAVA FILES AND THEIR ROLES-

File	Description
MainActivity.java	Entry point of the app; can be used for future login or home screen features.
TasksActivity.java	Main screen displaying pending and completed tasks by querying Firestore.
TaskAdapter.java	Custom RecyclerView.Adapter that binds task data to UI elements.
Tasks.java	A data model class representing each task with fields like ID, name, due date, and completion status.
TaskDetailActivity.java	Displays detailed information about a task when clicked from the list.

Data Handling and Flow-

User -> Inputs Task -> Firebase Firestore -> Data Fetched -> Categorized -> RecyclerViews

- When the app starts, loadTasks() is called.

- It fetches all documents from Firestore under the "tasks" collection.

- Tasks are filtered based on their completed status and assigned to either the pending or completed list.

- Each list is then rendered using its respective RecyclerView.

On Task Completion:

- Toggling the checkbox updates the completed flag in Firestore.

- The UI is refreshed to move the task between sections.

Email

Password

Login

Don't have an account? Sign up

tssk1

Select Due Date

Add Task

Pending Tasks

Completed Tasks

t1
Due: 2025-04-26

rt
Due: 2025-04-23

tssk1

Select Due Date

Add Task

2025
Tue, 29 Apr

‹   April 2025   ›

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Cancel   OK

Enter Task

Select Due Date

Add Task

Pending Tasks

☐   **tssk1**
Due: 2025-04-29

Completed Tasks

■   **t1**
Due: 2025-04-26

■   **rt**
Due: 2025-04-23

■   **r**
Due: 2025-04-09

🤖 Task added!

tssk1

Due: 2025-04-29

Status: Pending

Enter Task

Select Due Date

Add Task

Pending Tasks

Completed Tasks

t1
Due: 2025-04-26

rt
Due: 2025-04-23

r
Due: 2025-04-09

tssk1
Due: 2025-04-29