

Task Scheduler App

Overview

Task Scheduler App is a mobile application that assists users in managing tasks. It offers basic features such as adding, editing, removing, and categorizing tasks by deadline and category. Users can see future and completed tasks, mark tasks as done, and get timely reminders.

How to Run the Project

1. Clone or Download the Project

Download the project ZIP or clone the repository with:

git clone <https://github.com/BassiRoti/TaskSchedulerApp.git>

2. Open in Android Studio

- Start Android Studio.
- Choose "Open an Existing Project" and select the root directory of the project.
- Allow Gradle to sync and build the project automatically.
- Verify Emulator or Device
- Make sure you have an Android emulator launched or a physical device plugged in.
- The app specifies a minimum SDK version of 21+ (Lollipop), so ensure that the device is compatible.

3. Build and Run

- Press the green "Run" button in Android Studio.
- Choose the emulator/device you want.

Assumptions Made

Single-user Model:

The app is a single user. There's no user login, multi-user support, or data synchronization between devices.

Local Data Persistence:

SQLite is employed to store task and notification data locally. There is no integration with the cloud nor remote backup.

Manual Input Format:

The user is expected to provide date and time in certain formats (yyyy-MM-dd for date, HH:mm for time). No date/time picker UI is enforced at this point.

Notification Trigger:

Android system services such as AlarmManager or WorkManager are not utilized to schedule notifications. Rather, tasks and deadlines are presented under the Notifications tab, yet users are not reminded automatically as deadlines near.

Category Consistency:

Task categories are free form (not picked from a predetermined list), so consistency relies on user typing.

Deadline Assumption:

A task's deadline is assumed to be the union of its date and time fields.

Possible Improvements

System Notifications & Reminders

Use AlarmManager or WorkManager to schedule system notifications for impending task deadlines.

Date & Time Pickers

Use DatePickerDialog and TimePickerDialog for enhanced UX and to format date/time correctly.

Dark Mode Compatibility

Specify and use themes.xml support for both Light and Dark modes, employing ?attr/colorPrimary, colorSurface, and like attributes.

Filtering & Sorting UI

Offer dropdown filters or chips for category and deadline filtering. Also include sorting by due date, status, or title.

Recurring Tasks

Add feature for repeating tasks (daily, weekly, etc.).

Search Feature

Add a search bar to search for tasks by keyword, description, or category.

Task Priorities & Tags

Mark tasks as High/Medium/Low priority or color tags.

Export/Backup Tasks

Export task data into a CSV or backup to cloud (Google Drive, Firebase, etc.).

UI/UX Enhancements

Implement Material Design components, card-based layout for tasks, and improved empty-state visuals.