Taskwarrior: Mobile Task Management App

Introduction

In a digital world filled with to-do lists, managing tasks efficiently and seamlessly across devices has become essential. **Taskwarrior** is a well-known, free, and open-source command-line tool for task management. Building upon its robust CLI foundation, the **Taskwarrior Mobile App** brings this productivity powerhouse to your fingertips—providing a flexible, cross-platform mobile interface.

Developed with **Flutter** and powered by **Dart**, the Taskwarrior mobile app enables users to:

- Manage and organize tasks on-the-go,
- Filter and sync tasks using Taskserver,
- Easily integrate with the existing Taskwarrior ecosystem.

Whether you're a productivity nerd, a developer, or someone managing a busy schedule, this app simplifies task control from anywhere.

Objectives

The main objectives of the Taskwarrior Mobile App are:

- 1. Provide a clean, responsive mobile interface for interacting with Taskwarrior.
- 2. Enable task filtering, updating, and synchronization with a self-hosted or cloud Taskserver.
- 3. Support real-time task management and backup across devices.
- 4. Ensure easy setup and integration with existing Taskwarrior configurations.
- 5. Encourage contributions and community-driven development through open-source collaboration.

App Features

- 1. **Cross-Platform Task Management**: Access and manage your Taskwarrior tasks from your mobile device.
- 2. **Sync with Taskserver**: Keep tasks consistent across multiple clients using secure Taskserver integration.
- 3. **Command-Line Compatibility**: Mirrors the features of Taskwarrior CLI within a user-friendly mobile UI.
- 4. **Task Filtering and Stats**: View stats and apply filters to focus on what matters.
- 5. **Secure Certificate Configuration**: Sync safely by configuring personal certificates directly in the app.
- 6. **Community-Driven**: Open source, with support for contributions and improvements from developers worldwide.

Workflow

The user experience of the Taskwarrior Mobile App involves a few key steps:

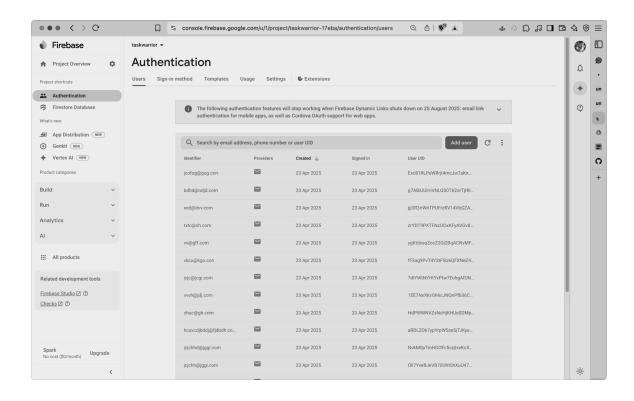
- 1. **Installation and Setup**: Clone the GitHub repository, install dependencies, and run the app using Flutter.
- 2. TaskServer Integration:
 - Choose from multiple TaskServer setup options (self-hosted, Docker, or third-party services like WingTask).
 - Configure necessary certificates within the app.
 - Use task sync init to begin syncing your tasks securely.
- 3. Task Management:
 - o Add, update, and manage tasks.
 - View task statistics, filter tasks based on criteria, and review sync status
- 4. **Navigation**: App navigation follows typical Flutter principles, offering a responsive and intuitive user experience.

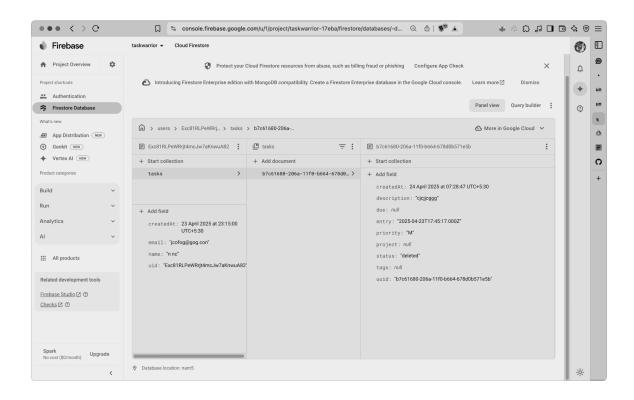
Terminologies

- 1. **Due**: This is the deadline for your task the date and time by which the task should ideally be completed.
- 2. **wait**: A task with a wait date is hidden from your task list until that time arrives. Think of it as "deferred" or "postponed until then."
- 3. **until:** This sets an expiration date for a task. After this date, the task is automatically deleted from your task database.

Firebase Sync Integration

- 1. Real-time syncing of tasks across multiple platforms.
- 2. Mobile-friendly access (great if paired with a Flutter UI).
- 3. Secure cloud storage for tasks, ensuring they're backed up and accessible from anywhere.
- 4. Faster task updates and collaboration if you're sharing task data with a team.





Technologies Used

- **Dart**: Programming language for app logic and Flutter framework.
- **Flutter**: Cross-platform UI toolkit used for building responsive mobile apps.
- **Taskserver**: Backend synchronization server used for syncing tasks across devices

TaskServer Setup

Taskserver is optional but recommended for users managing tasks across devices. Here's a high-level overview:

Why Use TaskServer?

- **Seamless Syncing**: Keep your tasks updated on all clients without manual intervention.
- Automatic Backups: Your data stays safe and consistent.
- Cross-Device Access: Start a task on one device and finish on another.

Setup Options

1. Self-Hosted TaskServer:

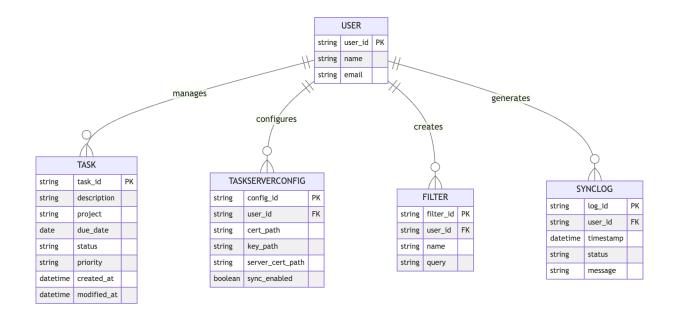
- Follow the official documentation
- Host on platforms like Azure or AWS
- Optional Docker container for quick setup

2. WingTask Integration:

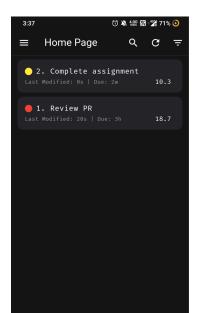
- Sign up and download configuration files
- Run the provided install.sh script
- Configure .cert.pem, .key.pem, and server certificates in-app
- Test setup via the in-app "Stats" button

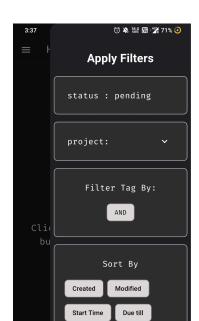
Once configured, users can begin syncing by running task sync init.

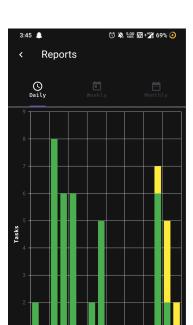
ER Diagram

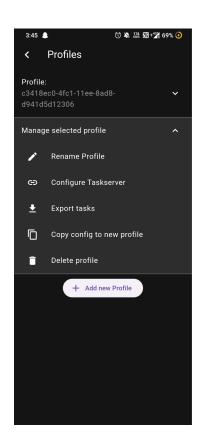


Screenshots & Usage

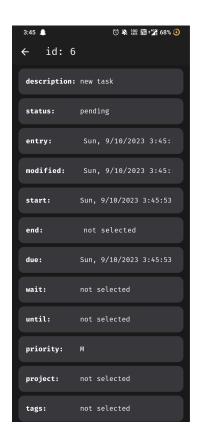












Future Scope and Enhancements

As Taskwarrior Mobile evolves, the following enhancements are being explored:

• UI/UX Improvements: More user-friendly and modern design updates.

- Offline Task Management: Edit and create tasks offline, sync when online.
- Dark Mode and Theme Support: Improve usability for night-time usage.
- **Push Notifications**: Reminders for upcoming deadlines or overdue tasks.
- Advanced Filtering and Tagging: Richer task filtering experience.
- Cloud Backup Options: Easy backup to services like Google Drive or Dropbox.

Conclusion

Taskwarrior Mobile serves as a powerful cross-platform task management assistant, offering a streamlined and intuitive way for users to stay on top of their responsibilities anytime, anywhere. By bringing the flexibility and depth of the Taskwarrior CLI into a modern mobile experience, the app promotes productivity, organization, and efficiency. Its practical applications range from personal task planning and project management to serving as a robust educational tool for open-source, real-time mobile app development. With Flutter's cross-platform capabilities and Taskserver integration, Taskwarrior Mobile delivers a reliable, secure, and scalable solution for task management on the go.