



Trackwise

# Introducing **TrackWise**

A habit tracking mobile application

Explore Now





# Introduction

In today's fast-paced, goal-oriented world, developing and maintaining positive habits is essential for personal growth and long-term success. Trackwise is a command-line habit tracking application designed to help users build consistency and stay accountable. Built with Python 3.7+ and powered by SQLite for persistent data storage, Trackwise allows users to create habits, mark task completions, and monitor their progress through insightful analytics and streak tracking. With a clear focus on simplicity and productivity, Trackwise empowers users to understand their behavior patterns and make meaningful changes to improve their daily routines.

# Tools & Frameworks

01

Python 3+

02

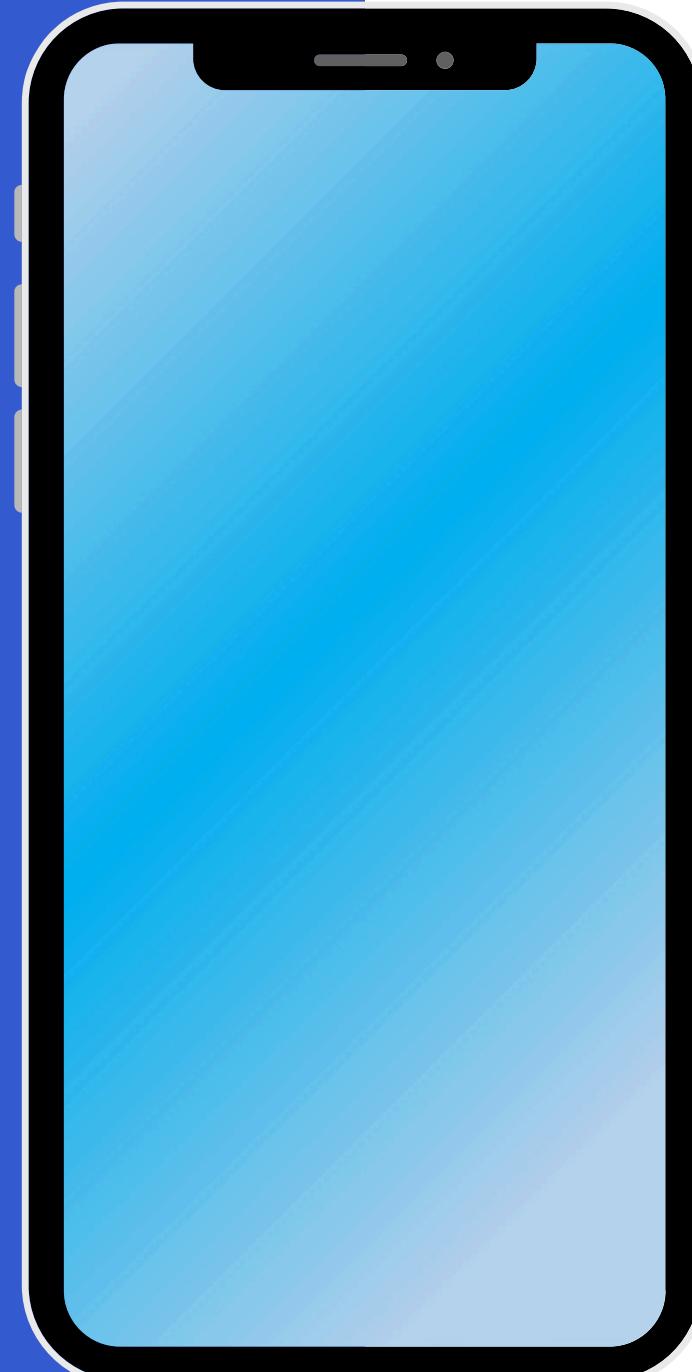
sqlite3

03

questionary Module



# Application Features



01

## Core Features

1. Habit Creation – Users can define new habits.
2. Habit Deletion – Users can remove habits from the system.
3. Task Completion – Users can mark habits as completed within their specified period (daily or weekly).

02

## Analytics Features

1. View All Habits – Lists every habit stored in the system.
2. Filter by Periodicity – View habits by frequency (e.g., daily or weekly).
3. View Longest Streak (All Habits) – Find the longest completion streak among all habits.
4. View habit Streak (Specific Habit) – Check the streak for a specific habit.

03

## Technical Features

1. Persistent Storage with SQLite – Data is stored and retrieved using an SQLite database.
2. Command-Line Interface (CLI) – User-friendly text-based interface.
3. Object-Oriented & Functional Programming – Structured using OOP for habit management and functional techniques for analysis.
4. Unit Testing – Modules are tested for logic accuracy and error-free performance.
5. Predefined Test Data – Sample habits and data included for testing and demonstration.

# User Experience Walkthrough

01

```
=====
| TrackWise
| We Track It
| =====
? Habit Tracker - Choose an option: (Use arrow keys)
» Add Habit
  Complete Habit
  View All Habits
  Analyze Habits
  Delete Habit
  Exit
```

This the first screen of the application .  
The user is prompt to select an option based on what they what to do with the application

02

```
=====
| TrackWise
| We Track It
| =====
? Habit Tracker - Choose an option: Add Habit
? Enter habit name: Drinking Water|
```

One of the option is Add Habit.  
When the user select Add Habit the user is required to enter habit name . and click Enter

03

```
? Habit Tracker - Choose an option: View All Habits
(1, 'Drinking Water', 'daily', '2025-05-15T15:25:41.568351')
(2, 'Reading a Book', 'weekly', '2025-05-15T15:26:00.679203')
(3, 'Running ', 'daily', '2025-05-15T15:26:18.973683')
? Habit Tracker - Choose an option: (Use arrow keys)
» Add Habit
  Complete Habit
  View All Habits
  Analyze Habits
  Delete Habit
  Exit
```

When the user select View all habits , the list of all habit is displayed.

# User Experience Walkthrough

**01**

```
? Habit Tracker - Choose an option: Analyze Habits
? Choose analysis type: (Use arrow keys)
» View Habits by Periodicity
  View Longest Streak for Habit
  View Current Streak for Habit
  View Broken Habits
  Back
```

The "Analyze Habits" menu provides several options to help users assess their habit progress. "View Habits by Periodicity" displays habits grouped by how often they are intended to be performed, such as daily or weekly, which helps users understand the structure and distribution of their routines. "View Longest Streak for Habit" shows the highest number of consecutive completions for each habit, offering insight into which ones have been maintained the most consistently. "View Current Streak for Habit" presents the number of uninterrupted days a habit has been performed up to the present, motivating users to maintain their momentum. "View Broken Habits" lists habits whose streaks were recently interrupted, highlighting areas that may need renewed focus. Finally, the "Back" option returns the user to the previous menu or main screen.

**02**

```
Habit Tracker - Choose an option: Delete Habit
Select habit to delete: (Use arrow keys)
1: Drinking Water
2: Reading a Book
3: Running
```

When the user selects the Delete option, the application displays a list of all habits currently stored in the system. The user can then choose a specific habit they wish to delete from this list. After making a selection, the application prompts the user to confirm their decision, typically with a verification message like "Are you sure you want to delete this habit? (yes/no)" to prevent accidental deletions. Only after the user confirms will the habit be permanently removed from the system.

# Running The Application Instruction

## Running The Application

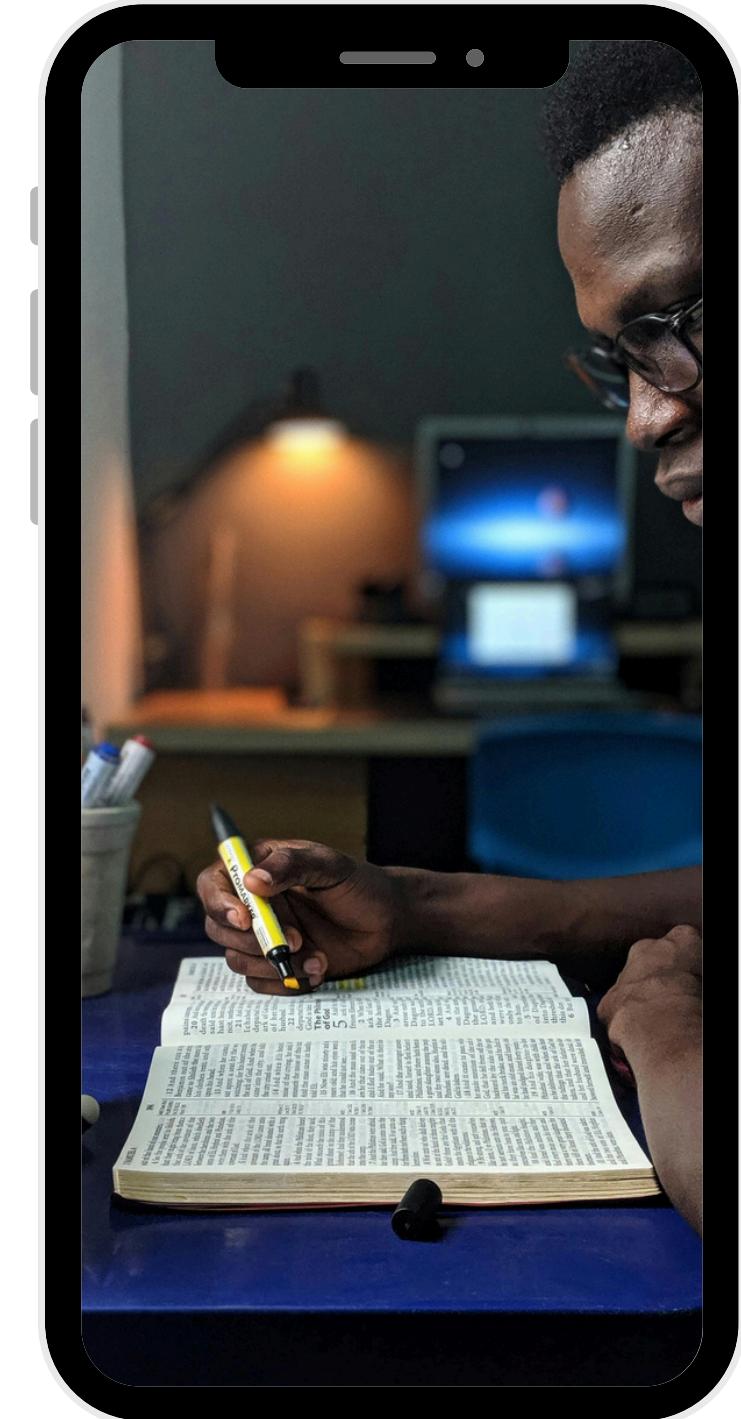
using the shell/cmd/  
terminal

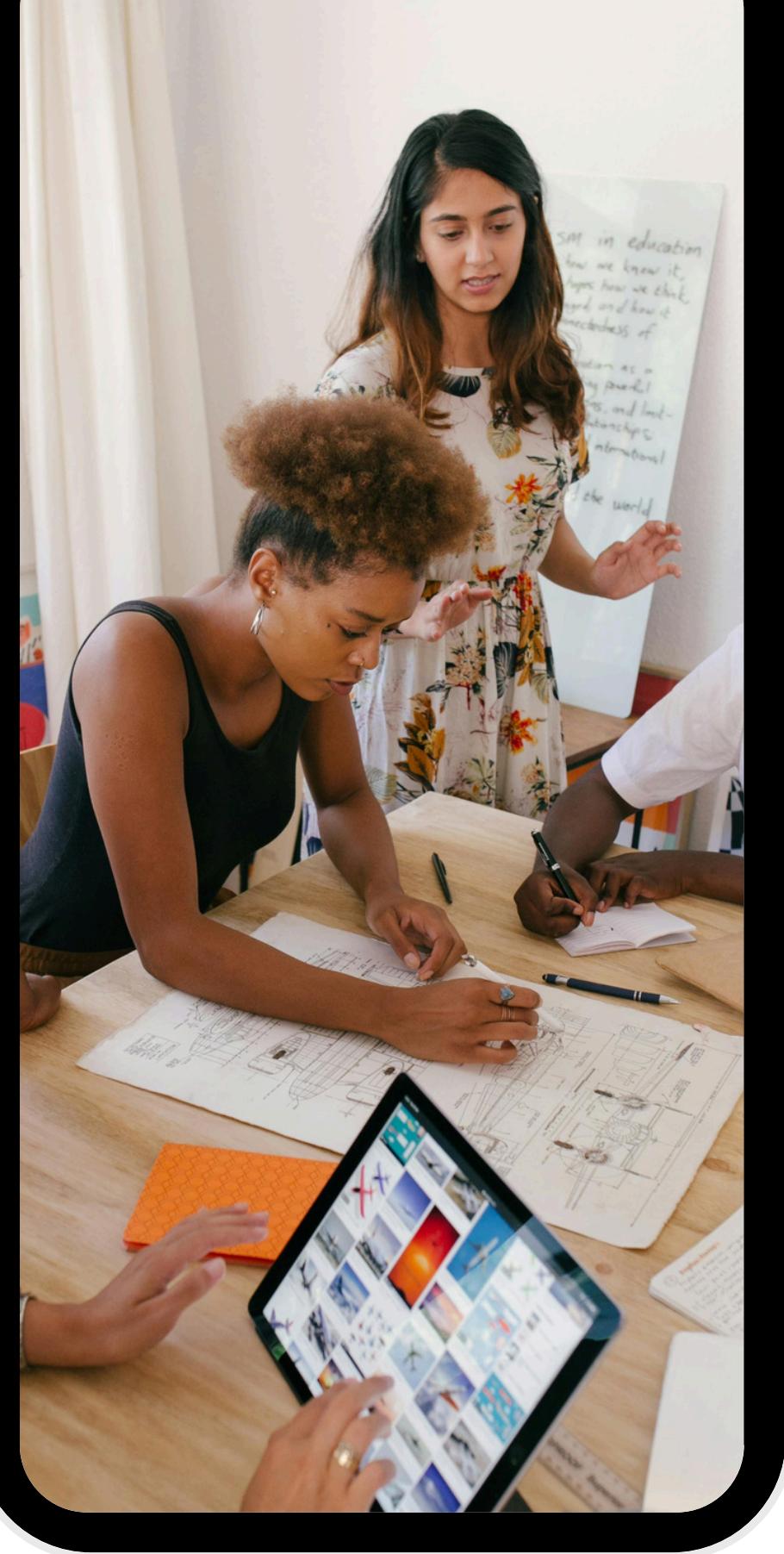
- run python main.py
- run python tests.py

## Requirements

To run this application you require  
the following modules

- questionnaire
- sqlite3





# Conclusion

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The Habit Tracking Application project successfully outlines a structured approach to developing a command-line interface (CLI) tool for managing and analyzing personal habits using Python 3.7+ and SQLite for persistent data storage. By leveraging object-oriented programming (OOP) for core functionalities (habit management, streak tracking) and functional programming for analytics, the application ensures modularity, scalability, and maintainability.

## More Info

The code of this application are found on the  
this github repository

<https://github.com/sheepo9/HabitTracker>

