

HCLI - Habit Tracker CLI

Conception Phase

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1 Concept Overview

HCLI is a lightweight, CLI-based habit tracker that allows users to efficiently manage and analyze habits without distractions. It provides commands to add, track, and review habits, storing data in JSON for easy access.

2 Approach

Users interact with HCLI using simple commands:

- `python main.py add "Workout" daily` - Adds a habit.
- `python main.py check "Workout"` - Logs completion.
- `python main.py summary` - Shows progress.

Built with Python, Typer, and Rich, the system ensures a seamless user experience.

3 System Architecture

HCLI consists of:

- **CLI Interface** - Processes user commands.
- **Data Manager** - Stores and retrieves habits.
- **Analytics Engine** - Tracks habit streaks and reminders.

The development of HCLI follows a structured approach: implementing core CLI commands, managing data storage, enhancing user interaction, providing analytics and visualization, enabling configuration, and ensuring reliability through testing.

