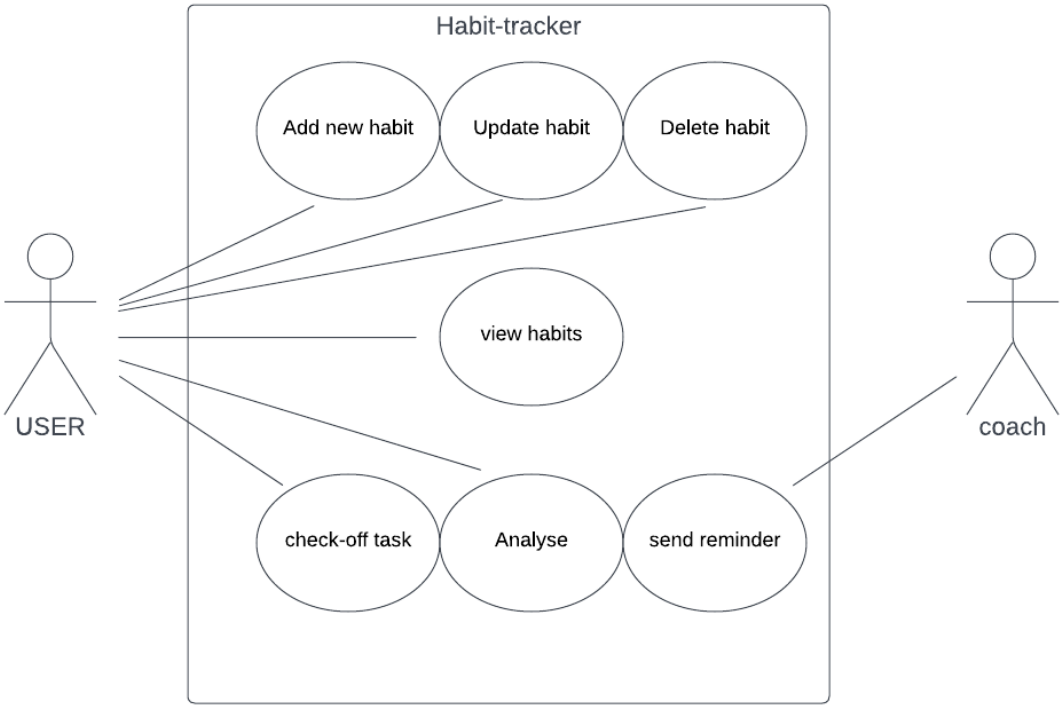
Initial Concept

Introduction

The habit tracker is intended to make everyday life easier for users and also serve as a possible motivator. The users goals, referred to here as habits, can be very different (from yoga to quitting smoking) and should be tracked and analyzed with the habit-tracker app. Any number of habits can be tracked by the user by checking one of these tasks as done for the given period (day/week). It is important that the user has a good overview of all his habits and can analyze them at any time.

The program is controlled by the user via the commandline. Data is stored in a database and accessed by the habit-tracking program, programmed in python3, to update and process the habit records.
Using this predominantly OO programming language, which also features basic functional programming capabilities, suitable parts of the habit-tracker are written in a functional style, documented and tested.

Simple use case diagram to get a first impression



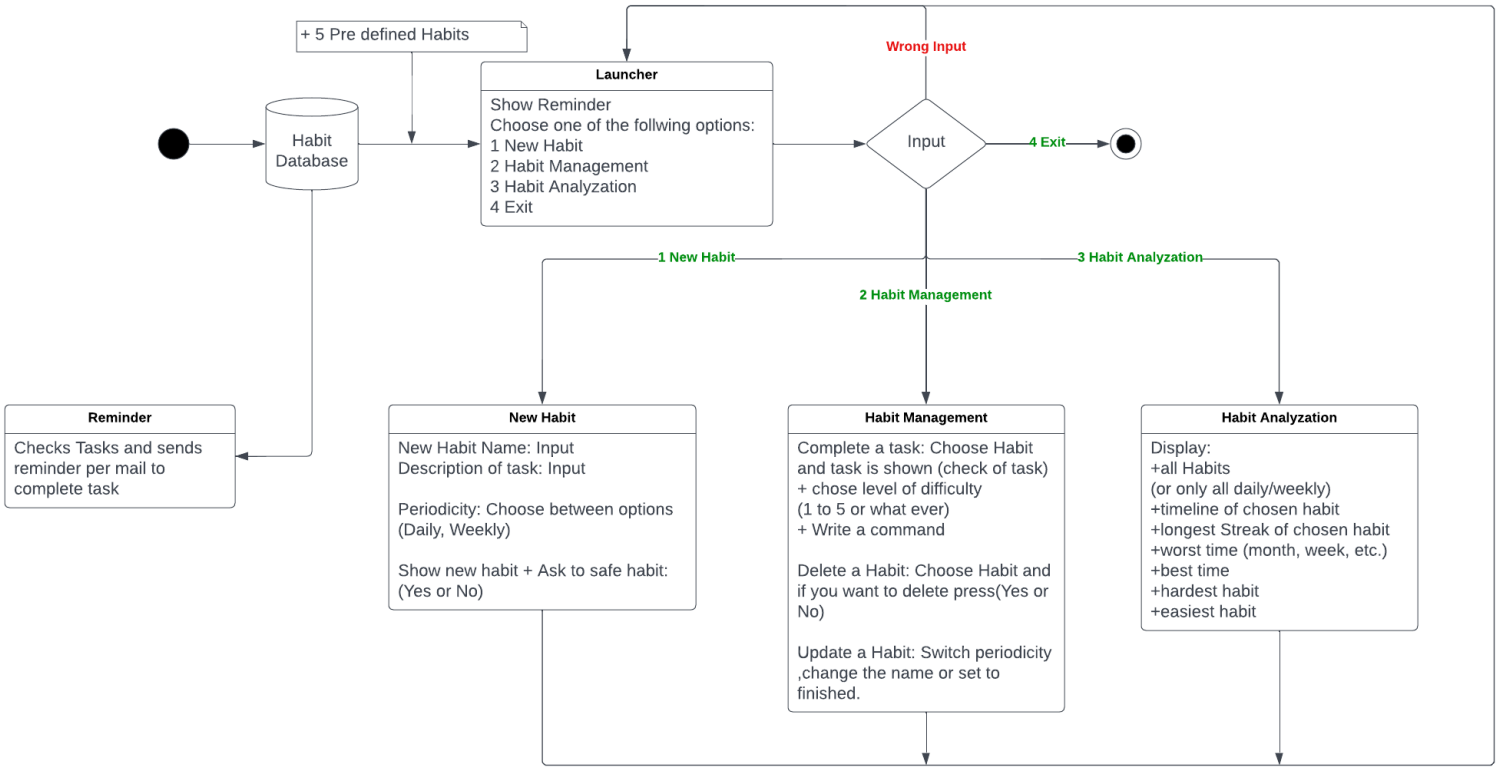
Used software for habit tracking app:

- Python3
- SQL

Functionalities

- Create new habit
- Detailed description of habit (name, type, status, timeline, etc)
- Diagrams of analyzed habits
- Chang habit settings or configuration
- Give motivation (in form of a reminder)
- Update habits
- Delete habits
- Send reminder (optional)

Work flow of the habit tracking app



To test the program 5 pre-defined habits are created. Built-in sanity checks ensure that only meaningful outputs are displayed for the user.
As shown in the diagram, the user can choose between adding a new habit, habit management and habit analysis. Whether this is done with a start menu input or direct input on the command line (habit_tracker.py --add "habit_name"
habit_tracker.py --update "habit_name"
habit_tracker.py --show "habit_name"
etc.) when calling the program is still to be decided.
It is only important that it is easy to execute and clear.
Beside analyses which are called by the user, the habit-tracker can send a reminder message to the user via email. The reminder can and must not be used.
The app is tested with unittest or pytest.