Concept Phase for a habit tracking app with CLI (Command Line Interface)

Create Classes:

For this project, I believe, one Class named "Counter" will be enough. This Class is responsible for the "habit" object creation with the following properties:

- Name – Habit name
- Description – Habit description
- Periodicity – Habit periodicity (daily or weekly)

It also provides methods to increment (by adding the date of the event) and delete a habit from the DB.

Create a CLI using "questinary" library with the following menu:

- **Create –** The user creates a habit by inputing manually the habit name and a description. After that, the user will be asked to select a periodicity (daily or weekly, more could be added, but it should be enough for the purpose of this project) for created habit. Saves the information a sql DB;

- **Increment –** Lists the habits that have been previously created. The user then selects the desired habit to increment and saves the current time date in the DB;

- **Delete Habit –** Lists the habits that have been previously created. The user then selects the desired habit to delete from the DB;

- **Analyse:**
  - **Habit –** Lists the habits that have been previously created. The user then selects the desired habit to analyse which will show the number of times the habit has been incremented and the longest streak;
  - **Periodicity –** Lists the periodicities (daily and weekly). The user then selects the desired periodicity which will show all the habits that have been previously created with that periodicity. Upon selecting the habit, the number of times the habit has been incremented and the longest streak will be shown;
  - **Longest Streak –** Shows the longest streak from all the habits previously created.

- **Exit –** Exists the program.

For a more visual concept of the program, see below the flowchart:

Image 1: Habit traking app flowchart
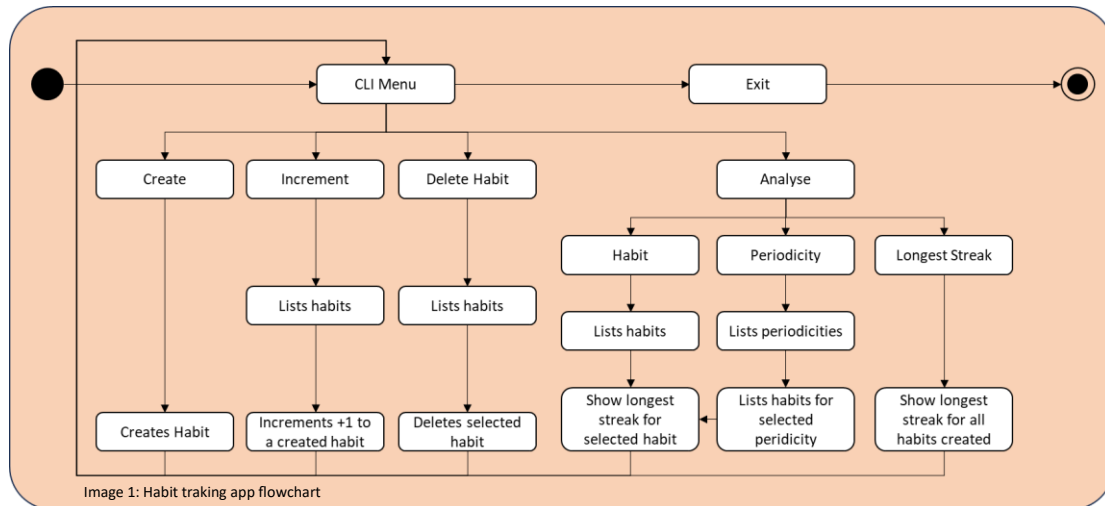
For this project I will also need to some calculation/listing functions. Based on the flowchart and on my initial idea, I will have some functions as follows:

- **Listing all habits –** Function that lists all the habits that have created in the DB. This is relevant when the user is asked to select a habit from the shown list;

- **Listing habits by periodicity –** Function that lists habits according to the periodicity (daily/weekly) selected by the user;

- **Longest streak by habit –** Function that shows the habit streak for a habit selected by the user. The function needs to be able to handle streaks by days or by weeks, depending on the periodicity. The output should be a single line with the habit name, longest streak #, start date and end date;

- **Longest streak for all habits –** Function that will loop the "Longest streak by habit" by using the habit names in a list (output from "Listing all habits"). The output should be a single line with the name of the habit and his streak.