Conception Phase

Habit Tracking Application

In my habit tracking application, in addition to "main.py", I am going to create four classes. These are "AddHabit", "EditHabit", "AnalyzeHabit" and "DeleteHabit". This app will come with five predefined habits. This app will help you to properly track your habits. I am going to use sqlite3 for storing the data. This is because it offers fast reading and writing operations and only loads the data that is needed.

The first class, AddHabit, is responsible for creating a new habit. It will consist of one method. The method of the class is ***add_habit(self, name, category, frequency, duration, file_db)***.

The second class, EditHabit, helps users to edit the name of the habit, category type, and habit duration. This class will consist of one method ***edit(self, file_db)*** and three attributes ***habit_name***: the name of the habit that needs to be edited, ***choice:*** the user's choice of what should be edited in habit (name/category/frequency) ***new_value:*** the new value that the users input.

The third class, AnalyzeHabit, is responsible for getting information and analyzing the habits. This class will return: a list of all habits, a list of all habits with the same duration, the longest run streak of all habits or for a given one. The class will consist of three methods. These are ***check_off(self, name: str, file_db), count_streak_days(self, habit_name: str, frequency: str, file_db), report(self, purpose: str, file_db).***

The last class, DeleteHabit, deletes the habit entirely from the Database. And it will only consist of one method: ***delete_the_habit()***.

In addition to the classes that were mentioned earlier, I will create a class that is responsible for predefined habits (3 daily and 2 weekly habits), and these habits will be stored in predefined-habits.db. This class will consist of one method: ***report_predefined_habits(self, file_db)***.