Final Product

How to start

Before to start make sure that you have Python 3.9+ on your device or you can download it:
https://www.python.org/downloads/

Important packages:
- tabulate~=0.8.10 "pip install tabulate"
- questionary~=1.10.0 "pip install questionary"
- pytest~=7.2.0 "pip install -U pytest"

Documentation

"system.py"

Function

- **habit_names_from_data**(file_db):
  This function is responsible for extracting habit names from the database file.
  > *:param* file_db: the name of the db file

AddHabit Class

Method:

- **add_habit**(self, name: str, category: str, frequency: str, duration: str, file_db):
  Adds a new habit to the sqlite database.
  > *:param* name: the name of the habit
  > *:param* category: the category of the habit
  > *:param* frequency: the frequency of the habit
  > *:param* duration: how long the habit lasts
  > *:param* file_db: the name of the db file

EditHabit Class

Attributes:

- ➔ **habit_name** (str): the name of the habit that needs to be edited
- ➔ **choice** (str): the user's choice of what should be edited in habit (name/category/frequency)
- ➔ **new_value** (str): the new value that the users input

Methods:

- **edit**(self, file_db):
  Changes the name/category/frequency of the specified habit in the database.
    - *:param* file_db: the name of the db file

AnalyzeHabit Class

Methods:

- **check_off**(self, name: str, answer: str, file_db):
  This function is responsible for marking the habit after its completion.
    - *:param* name: the name of the habit
    - *:param* answer: user response
    - *:param* file_db: the name of the db file

- **count_streak_days**(self, habit_name: str, frequency: str, file_db):
  Counts streak days
    - *:param* habit_name: the name of the habit
    - *:param* frequency: the frequency of the habit
    - *:param* file_db: the name of the db file

- **report**(self, purpose: str, file_db):
  Gives all information about habits
    - *:param* purpose: user response
    - *:param* file_db: the name of the db file

PredefinedHabits Class

Method:
- **report_predefined_habits**(self, file_db):
  Reviews all predefined habits
    - *:param* file_db: the name of the db file

DeleteHabit Class

Method:
- **delete_the_habit**(self, name: str, file_db):
  This function is responsible for deleting the habit by its name.
    - *:param* name: the name of the habit
    - *:param* file_db: the name of the db file

"db.py"

Functions

- **get_db**(name):
  This function is responsible for opening the db file.
  > ***:param*** name: the name of the db file

- **create_tables**(db):
  This function is responsible for creating tables in the database file.
  > ***:param*** db: the name of the db file

- **create_habits**(db, name: ***str***, category: ***str***, frequency: ***str***, start_date: ***str***, duration: ***str***, marked_off: ***int***, last_completed_day: ***str***, streak_days: ***int***, longest_st_days: ***int***):
  This function is responsible for storing data about habits in a database file.
  > ***:param*** db: the name of the db file
  > ***:param*** name: the name of the habit
  > ***:param*** category: the category of the habit
  > ***:param*** frequency: the frequency of the habit
  > ***:param*** start_date: the date when this habit was created
  > ***:param*** duration: how long the habit lasts
  > ***:param*** marked_off: how many times the habit was performed
  > ***:param*** last_completed_day: the day when the habit was marked as completed
  > ***:param*** streak_days: the number of streak days
  > ***:param*** longest_st_days: the number of longest streak days

- **get_table**(db, thing, value):
  This function is responsible for visualizing data about habits in a table.
  > ***:param*** db: the name of the db file
  > ***:param*** thing: the name of the column in the table
  > ***:param*** value: the value of the column

"test_db.py"

TestHabit Class

Methods:
- **test_add_new_habit**(self):
  This function is responsible for testing the "**AddHabit**" class.

- **test_edit_habit**(self):
  This function is responsible for testing the "**EditHabit**" class.

- **test_analyse_habit**(self):
  This function is responsible for testing the "**AnalyzeHabit**" class.

- **test_delete**(self):
  This function is responsible for testing the "**DeleteHabit**" class.