Python Habit Tracker Application

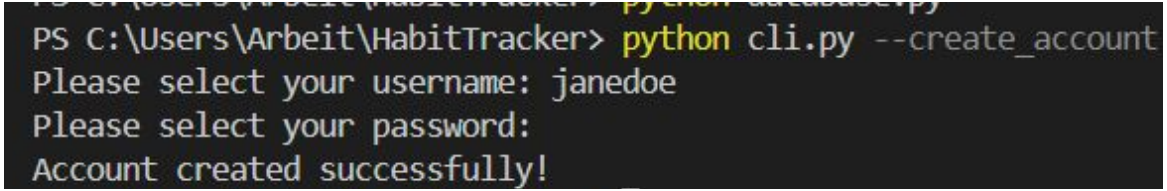
Functionality

Screenshots showing the functionality of the application with example actions

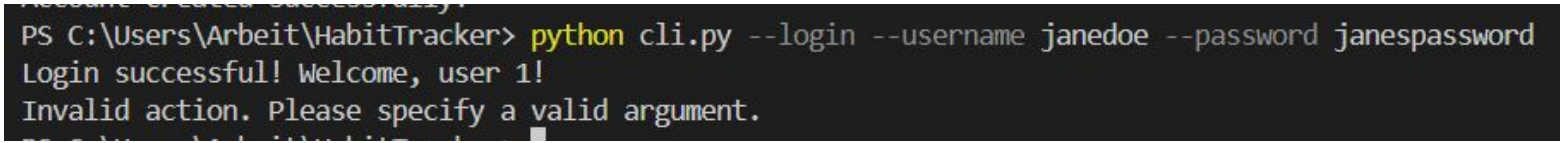
Terminal Arguments

Account Creation / Login

Creation of a new account via terminal

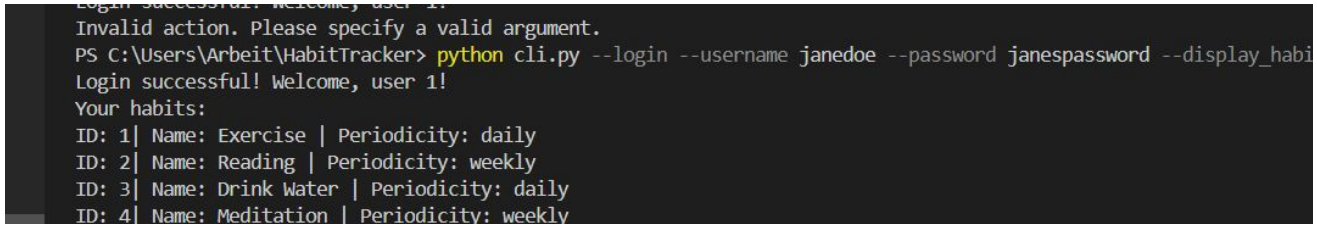


Login via terminal (error is due to the missing action as the user is supposed to specify one immediately)

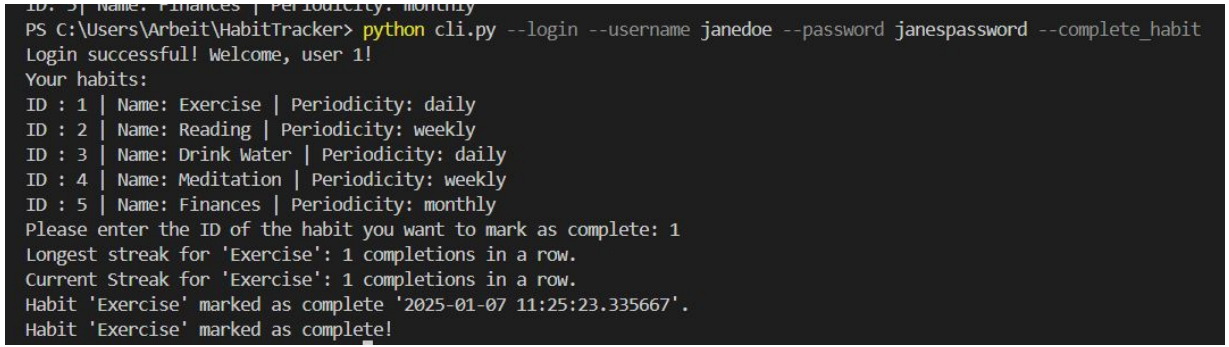


Login with specified action

Login and display all habits (sample user and sample habits that come with the application)



Completion of a habit

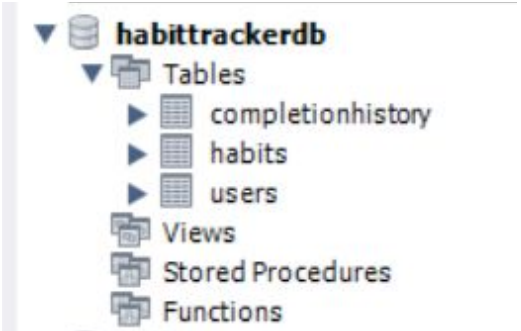


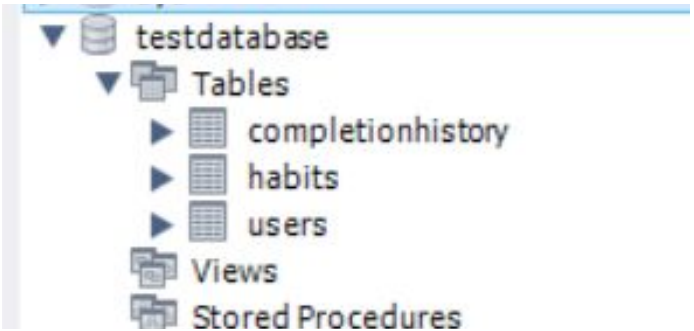
MySQL Workbench

Screenshots showing the database and data that comes with it

MySQL Database

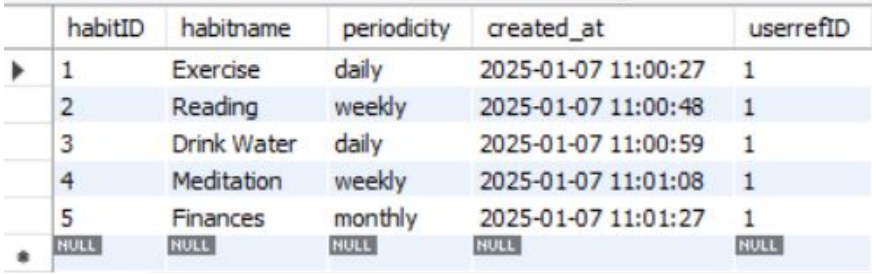
Database setup (usage, and testing database)





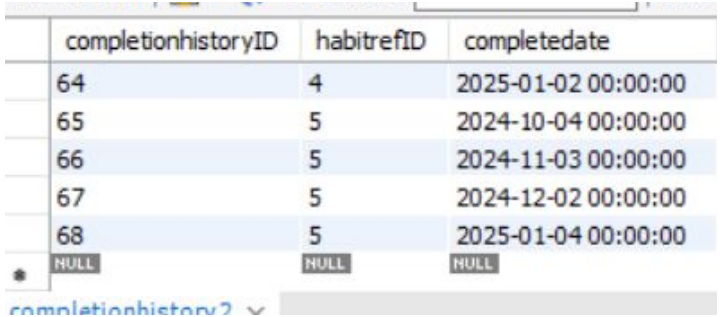
identical structure, but only habittrackerdb comes with pre-installed data, as the pytest test suite for testdatabase automatically wipes all data from the database after every test unit

Pre-installed Habits & CompletionHistory



habitID	habitname	periodicity	created_at	userrefID
1	Exercise	daily	2025-01-07 11:00:27	1
2	Reading	weekly	2025-01-07 11:00:48	1
3	Drink Water	daily	2025-01-07 11:00:59	1
4	Meditation	weekly	2025-01-07 11:01:08	1
5	Finances	monthly	2025-01-07 11:01:27	1
NULL	NULL	NULL	NULL	NULL

5 habits dating of all three possible periodicities are defined for user1 (the example user by the name of janedoe)



completionhistoryID	habitrefID	completedate
64	4	2025-01-02 00:00:00
65	5	2024-10-04 00:00:00
66	5	2024-11-03 00:00:00
67	5	2024-12-02 00:00:00
68	5	2025-01-04 00:00:00
NULL	NULL	NULL

completionhistory2

68 completion history entries are defined for all pre-installed habits dating back anywhere from 4 to 10 weeks

Notes on Database Installation

```
5
6   #Creation of a new database
7   db = mysql.connector.connect(
8       host = "localhost",
9       user = "root",
10      passwd = "testingpassword",
11      database = "habittrackerdb"
12      #database = "testdatabase" #Uncomment this for pytest tests, use "habittrackerdb" for real use
13  )
14
```

This database connection in database.py must be set up correctly. The host, user, and password (lines 8 - 10) are personalized by the user during the installation, establishing their personal connection.
For this, MySQL Server, MySQL Shell, and MySQL Workbench must be installed (installation of requirements.txt ensures this)

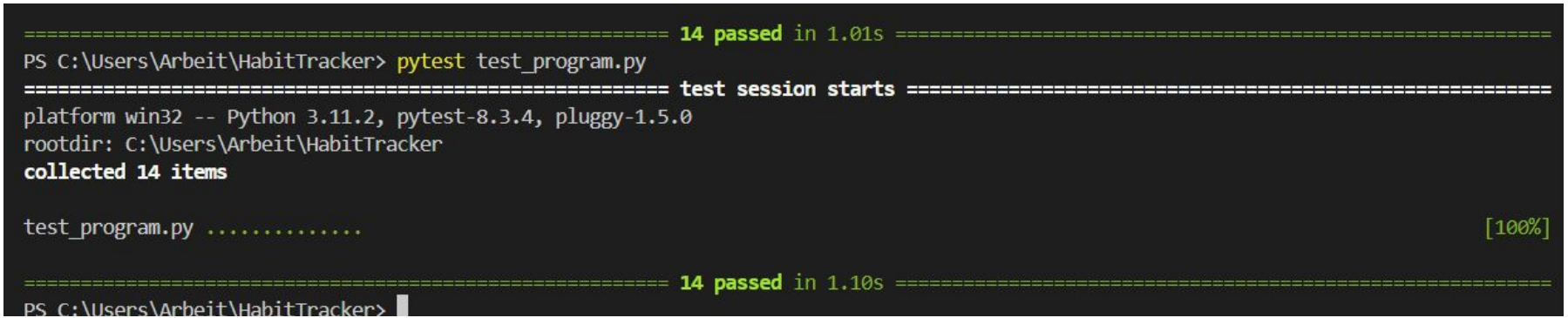
Run using test_program.py file

Pytest test suite run on the duplicated database

Pytest

Pytest Result

Database connection must be set up correctly before running pytest or else all data will be deleted!
Pytest can be run in the terminal as seen in the screenshot below (pytest test_program.py).
If everything was installed correctly, the following output is returned:



Adjustments pre-run

```
5
6   #Creation of a new database
7   db = mysql.connector.connect(
8       host = "localhost",
9       user = "root",
10      passwd = "testingpassword",
11      database = "habittrackerdb"
12      #database = "testdatabase" #Uncomment this for pytest tests, use "habittrackerdb" for real use
13  )
14
```

Before being able to run the test suite, the user must comment the name of the database (line 11) and uncomment the testdatabase (line12). As the test suite wipes the database clean, this prevents the pre-installed data to be deleted.
Before the user can use the database, they must ensure that the database connection is reverted back to this original state in order to use to correct database.