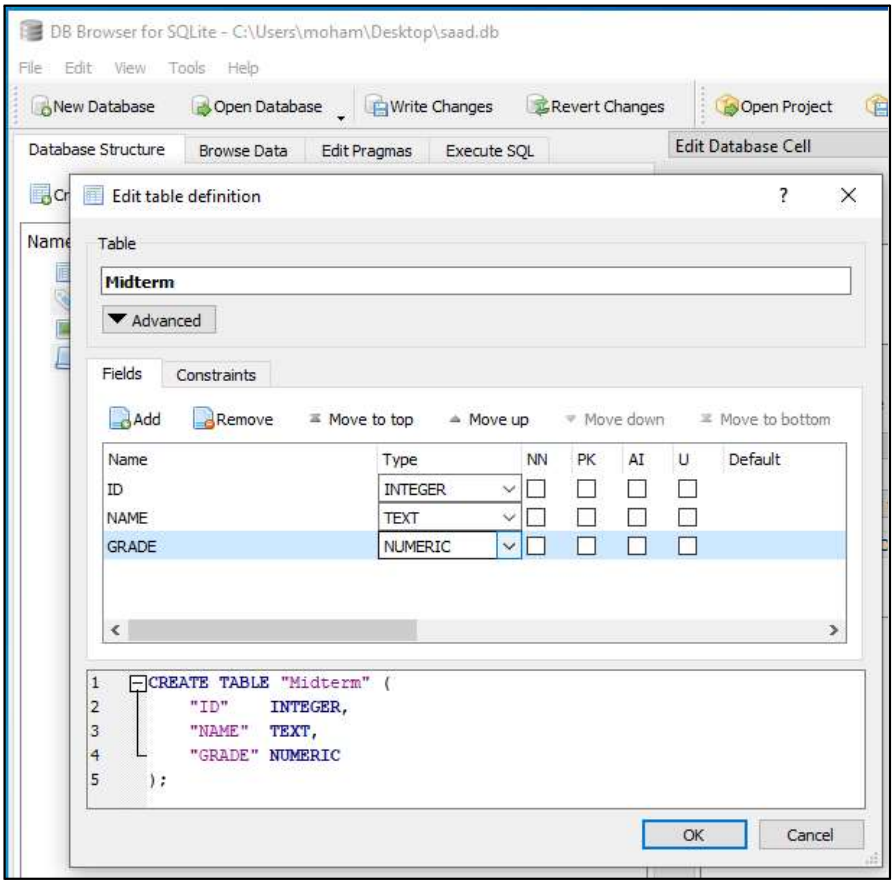
Lab 5

Overview

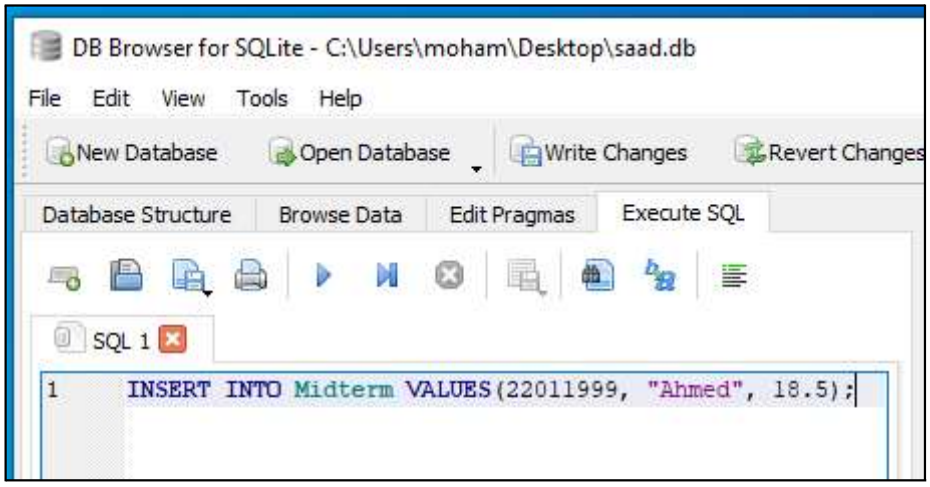
In this lab we will learn dealing with database using your Python code

Steps

1. Install SQLite Browser from the following link https://sqlitebrowser.org/
2. Open the SQLite Browser application and click the **"New Database"** button at the top right, and choose the location to save your new database at the Desktop.
   Please use your student-id as the name of the database, here I will save my database with the name ***"saad.db"*.**
3. Create a new table with the name "Midterm", and three fields: ID, NAME and GRADE with types INTEGER, TEXT and NUMERIC as you can see in the screenshot.



4. Go to the tab named “Execute SQL” and write the following query to it, then press the blue triangle button  to run the query.



5. Modify the query to insert the following values to your table

22012000	Adham	19
22012001	Nada	19.5
22012002	Nora	18.5
22012003	Mohamed	20

6. Press to the button at the top **“Write Changes”** to save your data to the file at the Desktop that you created in Step #1.

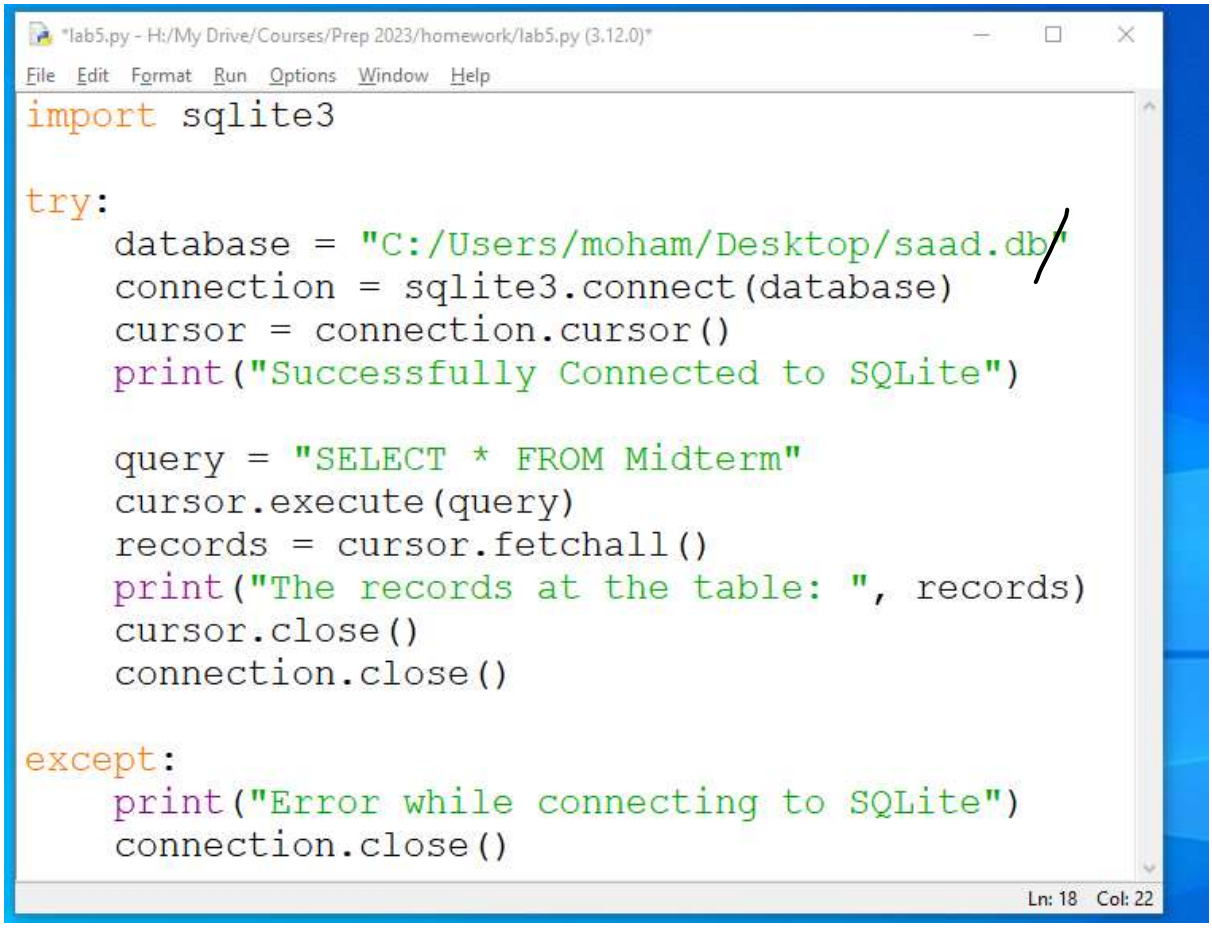
Exercise 1:

- **Insert a new record to the midterm table with your student id, your name and grade.**
- **Write a SELECT query to show all records you inserted. How many records are now at your table?**

Part 2: Accessing Database from Python

In Part 1, we used SQLite to create a database, insert the data, and read it using SELECT. Now we will do the same using Python

1. From Windows start menu, Open Python IDLE
2. Go to the File menu and select "New File"
3. Copy the following program to the window



4. Go to the File menu and select "Save", and save the program at the Desktop. Please use your student-id as the name of the file, and use "py" as an extension to the program
5. Go to the Run menu and select "Run Module" and see the output

Exercise 2:

Modify your program to print the records ordered from highest grade to lowest

Hint: use the syntax of ORDER BY as in the slides in the lecture