

Finals Lab Task 6.

MySQL CRUD Operations in Python Using GUI Tkinter

Step 1. Make sure you install the necessary prerequisites:

- MySQL-Connector** in Pycharm
- Activate xampp (Apache and Mysql)
- Create a database named: cars DB
- Import the sql file (carsDB.sql) to load the tables and records
- Create a user named(cs204) with password (asdf123) and assign full access to the database - Use this credentials when connecting to the database

Step 2. See the GUI Design of the Demo interface



The screenshot shows a GUI application titled 'CRUD PYTHON MYSQL'. On the left, there are six yellow buttons: 'Show All', 'Add Record', 'Update', 'Delete', 'Search', and 'Refresh'. The main area displays a table with the following data:

ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price
1	BMW X5	2022	Black	3000	330	Petrol	A	58000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	48000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2020	Black	2000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	3500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
8	BMW 4 Series	2023	Red	3000	350	Petrol	A	48000.00
9	BMW X8	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4	2023	Blue	3000	450	Petrol	M	62000.00
12	BMW X2	2022	White	2000	230	Diesel	A	36000.00
13	BMW 8 Series	2023	Black	4400	600	Petrol	A	95000.00
14	BMW X7	2022	Silver	4500	530	Diesel	A	85000.00
15	BMW 2 Series	2023	Black	1800	200	Petrol	M	32000.00
16	BMW M2	2021	White	3000	365	Petrol	A	54000.00
17	BMW X4	2022	Blue	2000	240	Diesel	A	41000.00
18	BMW 6 Series	2023	Red	3500	420	Petrol	M	68000.00
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00
20	BMW X6	2022	White	3000	400	Diesel	M	68000.00
21	BMW 4 Series	2020	Black	2500	320	Petrol	A	48000.00
22	BMW X3	2022	Blue	2000	240	Petrol	A	38000.00
23	BMW M4	2021	Red	3000	450	Petrol	M	62000.00
24	BMW X2	2022	White	2000	230	Diesel	A	36000.00
25	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
26	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
27	BMW X5	2021	Blue	3000	330	Petrol	A	52000.00
28	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00

Step 3. Try the code below:

Get the copy of the following files and load in pycharm:

Link here:

https://drive.google.com/drive/folders/1e6Eh55qLAwepf0A_I8GKh70eIW6jAxJj?usp=sharing

- connectDb.py
- main.py
- window.py

Step 4. Run the program main.py (and test all the functions (CRUD)) it should be free from errors. Make a screenshot of your output as proof that you were able to configure the program properly

Step 5. Add the ff: Functions in the GUI . Choose 1 only

1. Insert a Label and Text widget that will display the ff: infos:

- a. *the total Number of Records,*
- b. *Car Model* with the Highest Price,
- c. *Total Number of Manual Cars*
- d. *Total number of and Automatic Cars*