

Python and MySQL Integration Quiz

1. Which library must be installed to connect Python with a MySQL database?

- A. pip install mysql
- B. pip install sql-python
- C. pip install mysql-db
- D. pip install mysql-connector-python

Answer: D

2. Which module is imported at the start of your Python script to work with MySQL?

- A. import mysql.connector
- B. import sql.connector
- C. import mysql.python
- D. import database.mysql

Answer: A

3. Which method is used to establish a link between Python and the MySQL server?

- A. mysql.connector.open()
- B. mysql.connector.start()
- C. mysql.connector.connect()
- D. mysql.connector.link()

Answer: C

4. In the connection method, which parameter specifies the address of the MySQL server (e.g., 'localhost')?

- A. server
- B. address
- C. host
- D. location

Answer: C

5. Which object is required to execute SQL queries and fetch results from the database?

- A. Linker
- B. Pointer
- C. Executor
- D. Cursor

Answer: D

6. What is the correct method to create a cursor object?

- A. connection.start_cursor()
- B. connection.cursor()
- C. mysql.create_cursor()
- D. cursor.open()

Answer: B

7. Which method of the cursor object is used to run an SQL command like "CREATE TABLE"?

- A. run()
- B. call()
- C. execute()
- D. perform()

Answer: C

8. After executing an "INSERT" query, which connection method must be called to save the changes permanently?

- A. commit()
- B. save()
- C. finalize()
- D. update()

Answer: A

9. What does the "CRUD" acronym stand for in database operations?

- A. Create, Read, Update, Delete
- B. Copy, Run, Undo, Delay
- C. Create, Retrieve, Use, Disconnect
- D. Connect, Read, Update, Drop

Answer: A

10. Which SQL command is passed to cursor.execute() to add a new record to a table?

- A. ADD INTO
- B. INSERT INTO
- C. NEW RECORD
- D. UPDATE TABLE

Answer: B

11. To insert multiple records at once, which method is more efficient than a simple execute()?

- A. execute_all()
- B. execute_batch()
- C. run_multiple()
- D. executemany()

Answer: D

12. When using `executemany()`, what data structure is typically used to hold the multiple records?

- A. A single string
- B. A list of tuples
- C. A dictionary
- D. A set

Answer: B

13. Which method is used to retrieve all the rows from the result of a "SELECT" query?

- A. `fetchone()`
- B. `fetchmany()`
- C. `fetchall()`
- D. `getall()`

Answer: C

14. What does the `fetchone()` method return if there are no more rows available?

- A. An empty list
- B. An error
- C. None
- D. 0

Answer: C

15. To update a specific record in a table, which SQL clause is essential to avoid updating all rows?

- A. WHERE
- B. GROUP BY
- C. HAVING
- D. ORDER BY

Answer: A

16. Which method is used to reverse a transaction if an error occurs during an update?

- A. undo()
- B. rollback()
- C. back()
- D. cancel()

Answer: B

17. What is the purpose of connection.close()?

- A. It deletes the database.
- B. It clears the table data.
- C. It releases the database resources and ends the session.
- D. It saves the data to a text file.

Answer: C

18. In the connect() method, which parameter is used to specify the user's login name?

- A. username
- B. login
- C. account
- D. user

Answer: D

19. Which symbol is often used as a placeholder in SQL queries within Python to prevent SQL Injection?

- A. ?
- B. %s
- C. \$
- D. &

Answer: B

20. In a fund transfer transaction, if the first account is debited but the second cannot be credited, what should the script do?

- A. Commit the first part.
- B. Close the connection immediately.
- C. Execute a rollback.
- D. Delete both accounts.

Answer: C

21. When retrieving data, the result of fetchall() is returned as which Python type?

- A. A dictionary of lists
- B. A list of tuples
- C. A string
- D. A set of dictionaries

Answer: B

22. Which SQL statement is used with cursor.execute() to remove a specific record?

- A. REMOVE
- B. DROP
- C. TRUNCATE
- D. DELETE

Answer: D

23. Why is it important to use cursor.close() before closing the connection?

- A. To prevent the computer from crashing.
- B. To ensure all pending results are cleared and memory is freed.
- C. To delete the SQL query string.
- D. To log out the user.

Answer: B

24. Which parameter is used in connect() to specify the specific database you want to use?

- A. db
- B. schema
- C. source
- D. database

Answer: D

25. If you want to see how many rows were affected by an UPDATE or DELETE, which attribute of the cursor do you check?

- A. cursor.count
- B. cursor.rowcount
- C. cursor.total
- D. cursor.affected

Answer: B