1.

Question 1

What are the key functionalities of the package management system pip in the Python ecosystem? Select all that apply.

1 / 1 point

List all packages installed in the Python environment.

Correct

Correct! pip list returns a list of all libraries installed in your Python environment.

Install packages, libraries, or software.

Correct

Correct! pip install package\_name is used to install the external package in your Python environment.

Update packages, libraries, or software.

Correct

Correct! pip install --upgrade package\_name is used to upgrade the existing installed package in your Python environment.

Communicate with MySQL using Python.

2.

Question 2

You want to establish communication between a frontend Python-based application and a backend MySQL database. What do you need to install in your Python environment to create this connection?

1 / 1 point

An instance of MySqlConnectionPool class.

An instance of MySqlConnection class.

The Python package manager

MySQL Connector/Python

Correct

Correct! MySQL Connector/Python is a database client (also called a driver or API) that connects Python and MySQL databases.

3.

Question 3

How can you communicate with a MySQL database after establishing a connection?

1 / 1 point

Create a MySQL database.

Create a Python string of your SQL query.

Create a cursor object.

Create a connection object.

Correct

Correct! The cursor object allows Python to communicate with the MySQL database.

4.

Question 4

A buffered cursor fills your buffered memory, which may affect its performance or crash your Python-based application if you are making large data requests from the MySQL database.

1 / 1 point

True

False

Correct

Correct! Reading larger data fills the buffered memory and can affect the performance of your Python-based application. It is important to create a type of cursor according to your needs in your application.

5.

Question 5

You have installed MySQL Connector/Python API to carry out a task in the MySQL database using Python. What next steps can you take to accomplish your task in the MySQL database using Python? Select all that apply.

1 / 1 point

Create a Python code for your task and run it on the MySQL database via MySQL Connector/Python API.

Create a SQL query for your task and pass it to the execute module as a Python string.

Correct

Correct! In your Python-based application, the SQL query must be converted to a Python string before you pass it to the execute module to accomplish your task on the MySQL database.

Create a Python string object for your SQL query and pass it to the execute module.

Correct

Correct! It is convenient to create a Python string object for the longer SQL queries and pass that object to the execute module.

Create a SQL query and pass it to the cursor module following the standard SQL syntax.

6.

Question 6

You have executed a query on the database that’s returning five records. However, you only want to retrieve the first record from the database. What’s the best approach to follow?

1 / 1 point

Create a buffered cursor and call the fetchone module after executing your SQL query.

Create a standard cursor and call the fetchmany with size=1 after executing your SQL query.

Create a dictionary cursor and call the fetchall module after executing your SQL query.

Create a standard cursor and invoke the fetchone module after executing your SQL query.

Correct

Correct! A buffered cursor will allow you to run subsequent queries after fetching a single record.

7.

Question 7

You’re establishing a connection between MySQL databases using Python and need to pass your parameters. Which of the following parameters are optional? Select all that apply.

1 / 1 point

The MySQL database name.

Correct

Correct! The database name is an optional parameter, and it can be set for use after establishing a connection.

The MySQL server address (the host).

Correct

Correct! The host is an optional parameter. By default, the connection is established with the localhost at 127.0.0.0.

The correct MySQL password.

The authenticated MySQL username.

8.

Question 8

You are creating a new database table in your MySQL database using Python. How do you define the table structure and column types?

1 / 1 point

Define the table structure in Python. The column types are automatically selected by the MySQL database.

Define the table structure in your SQL CREATE TABLE statement. Define the column types in Python.

Define both the table structure and the column types in your SQL CREATE TABLE statement.

Define the table structure and the column types in Python. Create a table using the SQL CREATE TABLE statement.

Correct

Correct! The CREATE TABLE is your SQL statement where you define the structure of the table and the types of the columns. The statement is then passed as a Python string to the execute module to accomplish the task.

9.

Question 9

When using Python to create a table, you must invoke the commit module on the connection after executing the CREATE TABLE statement.

1 / 1 point

True

False

Correct

Correct! You don’t need to commit after CREATE TABLE statement when using Python to work with the MySQL database.

10.

Question 10

What keyword or module must be added to your syntax before running the following SQL query?

1

cursor.\_\_\_\_\_\_\_("CREATE DATABASE database\_name")

1 / 1 point

execute

Correct

Correct! You invoke the execute module on the cursor object and pass your SQL query as a Python string to accomplish this task on a MySQL database.