* Overview of Database Clients
* Database Connectivity Information
* Server Name and Port Number
* Overview of Remote Postgres Database
* Connecting to Remote Postgres Database using pgAdmin
* Getting Started with psycopg2
* Validate Database Connectivity using Python
* Overview of Postgres Information Schema
* Exercise and Solution
  + Create Tables in remote database
  + Populate Sales data into the table and Validate by running queries
  + Validate Database Connectivity against remote database using Python

1. Which database client provides a simple SQL database engine, which is included in Python?

a. SQLite

b. Oracle

c. MySQL

d. PostgreSQL

Answer: a. SQLite

1. Which of the following port numbers is commonly used for MySQL database connectivity?

a. 1433

b. 1521

c. 3306

d. 5432

Answer: c. 3306

1. Which of the following is an example of a server name used for MySQL database connectivity?

a. localhost

b. 127.0.0.1

c. Both a and b

d. None of the above

Answer: c. Both a and b

1. Which of the following is the command to start a PostgreSQL database server?

a. pgsql

b. pg\_ctl

c. pg\_server

d. None of the above

Answer: b. Pg\_ctl

1. Which of the following information is required to connect to a remote PostgreSQL database using pgAdmin?

a. Server Name

b. Port Number

c. User ID and Password

d. All of the above

Answer: d. All of the above

1. Which of the following is the correct syntax to close a psycopg2 database connection?

a. connection.commit()

b. connection.close()

c. cursor.close()

d. None of the above

Answer: b. connection.close()

1. Which of the following is a Python library used to test database connectivity?

a. unittest

b. pytest

c. doctest

d. None of the above

Answer: a. Unittest

1. Which of the following is the correct syntax to retrieve column names from a table using Postgres Information Schema?

a. SELECT column\_name FROM information\_schema.indexes WHERE table\_name='table\_name'

b. SELECT column\_name FROM information\_schema.tables WHERE table\_name='table\_name'

c. SELECT column\_name FROM information\_schema.columns WHERE table\_name='table\_name'

d. None of the above

Answer: c. SELECT column\_name FROM information\_schema.columns WHERE table\_name='table\_name'

1. Which of the following is the correct syntax to insert data into a PostgreSQL table using psycopg2 in Python?

a. cursor.execute("INSERT INTO table\_name (column1, column2) VALUES (%s, %s)", (value1, value2))

b. connection.execute("INSERT INTO table\_name (column1, column2) VALUES (%s, %s)", (value1, value2))

c. cursor.execute("INSERT VALUES (value1, value2) INTO table\_name (column1, column2)")

d. None of the above

Answer: a. cursor.execute("INSERT INTO table\_name (column1, column2) VALUES (%s, %s)", (value1, value2))

1. Which of the following is not a step to create a new table in a PostgreSQL database?

a. Define column names and data types

b. Define primary key

c. Define foreign key

d. Define data values

Answer: d. Define data values