Graded Quiz: Accessing databases using Python

1. Which of the following statements establishes the connection between a Jupyter Notebook SQL extension and an SQLite database 'EMP.db'?   **1 / 1 point**

   ◉ %sql sqlite:///EMP.db

   ○ %sql

   ○ sqlite:///EMP.db

   ○ %sql sqlite:/EMP.db

   ○ %sql sqlite3://EMP.db

   > ⊘ **Correct**
   > Correct! This is the proper approach to establish the required connection.

2. Which two of the following can be stated as uses of cell magic in Jupyter Notebooks?   **1 / 1 point**

   ☑ Coding in Jupyter notebook using a programming language other than Python

   > ⊘ **Correct**
   > Partially correct. There are more options that are correct.

   ☐ Converting Jupyter notebook's default programming language to a desired one.

   ☑ Timing a complete cell block as per requirement.

   > ⊘ **Correct**
   > Partially correct. There are more options that are correct.

   ☐ Load an SQL database to a jupyter notebook

3. What would be the outcome of the following python code   **1 / 1 point**

   import sqlite3

   import pandas as pd

   conn = sqlite3.connect('HR.db')

   data = pd.read_csv('./employees.csv')

   data.to_sql('Employees', conn)

   ◉ The csv file is read and converted into an SQL table 'Employees' under the HR database

   ○ The CSV file is converted to an SQL file

   ○ The code throws a syntax error message.

   ○ CSV file is saved to the HR.db file created by the code.

   > ⊘ **Correct**
   > Correct. Data from the csv file is saved to an SQL table.

4. What would be the correct way to query a database table using python? Assume that output in any form is acceptable. Choose the 2 correct options.

1 / 1 point

☑ out = pandas.read_sql(query_statement, connection_object)

> ⊘ **Correct**
> Partially correct. There are more options that are correct.

☐ out = dataframe.read_sql(query_statement, connection_object)

☑ cursor = connection.execute(query_statement)

out = cursor.fetchall()

> ⊘ **Correct**
> Partially correct. There are more options that are correct.

☐ out = connection.execute(query_statement)

5. Which of the following statements would you use to perform a statistical analysis of data in a pandas dataframe 'df'?

1 / 1 point

◉ df.describe()

○ df.head()

○ df.tail()

○ df.info()

> ⊘ **Correct**
> Correct. describe method responds with a statistical analysis of the data in df.