Day-16 Quiz-DataScience-Training

Welcome to the Python Programming Quiz! This quiz tests your knowledge of daily learnings. Please read the instructions carefully before starting the quiz.

Instructions and Rules

- **Time Limit:** You have 20 minutes to complete the quiz.
- **Number of Questions:** The quiz consists of 20 multiple-choice questions.
- **Scoring:** Each correct answer is worth 1 point. There is no negative marking for incorrect answers.
- **Single Attempt:** You are allowed only one attempt to complete the quiz.
- **Required Fields:** All questions are mandatory. You must answer each question to submit the quiz.
- **Resources:** This is a closed-book quiz. Do not use any external resources, including books, notes, or the internet.
- **Honesty:** Please answer the questions honestly and to the best of your ability. Cheating or dishonesty will result in disqualification.
- **Environment:** Ensure you are in a quiet environment where you can concentrate without interruptions.
- **Technical Issues:** In case of technical issues, please contact the quiz administrator immediately.
- **Retakes:** There are no retake opportunities for this quiz. Ensure you are prepared before starting.

Good luck, and do your best!

* Indicates required question

1. Email *

_____

2. **1. Which join returns all records when there is a match in either left or right table records?** *

Mark only one oval.

○ a) LEFT JOIN

○ b) RIGHT JOIN

○ c) INNER JOIN

○ d) FULL OUTER JOIN

3. **2. What is a view in SQL?** *

Mark only one oval.

○ a) A temporary table

○ b) A virtual table based on the result-set of an SQL statement

○ c) A physical table

○ d) A table that stores images

4. **3. Which of the following is true about updating a view?** *

Mark only one oval.

- a) All views can be updated
- b) Views with multiple base tables can be updated
- c) Views with certain constraints can be updated
- d) Views with aggregate functions can be updated

5. **4. What is a unique index in SQL?** *

Mark only one oval.

- a) An index that does not allow duplicate values
- b) An index that allows duplicate values
- c) An index created on a view
- d) An index created on a stored procedure

6. **5. What is a sub-query in SQL?** *

Mark only one oval.

- ○ a) A query inside another query
- ○ b) A query that retrieves images
- ○ c) A query that creates a table
- ○ d) A query that modifies a table

7. **6. Which of the following is a type of sub-query?** *

Mark only one oval.

- ○ a) Scalar sub-query
- ○ b) Multi-row sub-query
- ○ c) Correlated sub-query
- ○ d) All of the above

8.   **7. What is the purpose of the GROUP BY clause in SQL?** *

Mark only one oval.

○ a) To group rows that have the same values into summary rows

○ b) To delete duplicate rows

○ c) To update multiple rows

○ d) To sort rows

9.   **8. What is the difference between WHERE and HAVING clause in SQL?** *

Mark only one oval.

○ a) WHERE is used before GROUP BY, HAVING is used after GROUP BY

○ b) WHERE is used for row-level filtering, HAVING is used for column-level filtering

○ c) WHERE is used after GROUP BY, HAVING is used before GROUP BY

○ d) WHERE is used for column-level filtering, HAVING is used for row-level filtering

10. **9. What does the LIMIT clause do in SQL?** *

Mark only one oval.

- ⬭ a) Limits the number of columns returned by a query
- ⬭ b) Limits the number of rows returned by a query
- ⬭ c) Limits the size of a database
- ⬭ d) Limits the size of a table

11. **10. What does the ORDER BY clause do in SQL?** *

Mark only one oval.

- ⬭ a) Limits the result set of a query
- ⬭ b) Groups the result set of a query by one or more columns
- ⬭ c) Filters the result set of a query
- ⬭ d) Sorts the result set of a query by one or more columns

12. **11. What does the LIKE '%pattern%' do in SQL?** *

Mark only one oval.

○ a) Searches for an exact match to the pattern

○ b) Searches for rows that contain the pattern

○ c) Searches for rows that do not contain the pattern

○ d) Searches for rows with NULL values

13. **12. What is the purpose of descriptive statistics?** *

Mark only one oval.

○ a) To summarize and describe the main features of a dataset

○ b) To infer properties about a population from a sample

○ c) To create complex models

○ d) To manipulate data

14. **13. Which of the following is not a measure of central tendency?** *

Mark only one oval.

- ◯ a) Mean
- ◯ b) Median
- ◯ c) Mode
- ◯ d) Range

15. **14. Which of the following is a measure of dispersion?** *

Mark only one oval.

- ◯ a) Mean
- ◯ b) Median
- ◯ c) Mode
- ◯ d) Standard Deviation

16. **15. What does positive skewness indicate about a dataset?** *

Mark only one oval.

- a) The data is symmetric
- b) The data has a long tail on the left side
- c) The data has a long tail on the right side
- d) The data is normally distributed

17. **16. What does kurtosis measure in a distribution?** *

Mark only one oval.

- a) The central tendency
- b) The asymmetry
- c) The peakedness
- d) The spread

18. **17. What does a covariance of zero indicate?** *

Mark only one oval.

- ⬭ a) The variables are independent
- ⬭ b) There is a perfect positive relationship
- ⬭ c) There is a perfect negative relationship
- ⬭ d) There is no linear relationship

19. **18. What is the range of the correlation coefficient?** *

Mark only one oval.

- ⬭ a) -2 to 2
- ⬭ b) 0 to 1
- ⬭ c) -1 to 1
- ⬭ d) -3 to 3

20. **19. Which of the following best describes correlation?** *

Mark only one oval.

⬭ a) It measures the strength of the linear relationship between two variables

⬭ b) It measures the difference between two variables

⬭ c) It measures the average value of two variables

⬭ d) It measures the standard deviation of two variables

21. **20. In SQL, which of the following is true about the UNION operator?** *

Mark only one oval.

⬭ a) It returns only duplicate records

⬭ b) It returns all unique records from multiple queries

⬭ c) It requires the same number of columns in each SELECT statement

⬭ d) Both b and c