Congratulations! You passed!

Grade received 100% | Latest Submission Grade 100% | To pass 80% or higher

Go to next item

1. Fill in the blank: Data analysts usually use _____ to deal with very large datasets. **1 / 1 point**

- ○ web browsers
- ◉ SQL
- ○ word processors
- ○ spreadsheets

Correct
Data analysts usually use SQL to deal with very large datasets.

2. In which of the following situations would a data analyst use SQL instead of a spreadsheet? Select all that apply. **1 / 1 point**

- ☐ When using the COUNTIF function to find a specific piece of information
- ☑ When working with a huge amount of data

Correct
A data analyst would use SQL instead of a spreadsheet to work with a huge amount of data. SQL can also quickly pull information from many different sources in a database and record queries and changes throughout a project.

- ☑ When recording queries and changes throughout a project

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- ☑ When quickly pulling information from many different sources in a database

Correct
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3. A data analyst is managing a database of customer information for a retail store. What SQL command can the analyst use to add a new customer to the database? **1 / 1 point**

- ○ CREATE TABLE IF NOT EXISTS
- ○ DROP TABLE IF EXISTS
- ◉ INSERT INTO
- ○ UPDATE

Correct
The analyst can use the INSERT INTO command to add a new customer to the database.

4. You are working with a database table that contains invoice data. The table includes columns for *invoice_id* and *billing_city*. You want to remove duplicate entries for billing city and sort the results by invoice ID. **1 / 1 point**

You write the SQL query below. Add a DISTINCT clause that will remove duplicate entries from the *billing_city* column.

NOTE: The three dots (...) indicate where to add the clause.

```
1  SELECT DISTINCT(billing_city)
2  FROM
3  invoice
4  ORDER BY
5  invoice_id
```

Run
Reset

```
+---------------+
| billing_city  |
+---------------+
| Stuttgart     |
| Oslo          |
| Brussels      |
| Edmonton      |
| Boston        |
```

```
| Frankfurt     |
| Berlin        |
| Paris         |
| Bordeaux      |
| Dublin        |
| London        |
| Mountain View |
| Redmond       |
| Cupertino     |
| Reno          |
| Madison       |
| Halifax       |
| Edinburgh     |
| Sidney        |
| Santiago      |
| Bangalore     |
| São Paulo     |
| Yellowknife   |
| Lisbon        |
| Amsterdam     |
+---------------+
(Output limit exceeded, 25 of 53 total rows shown)
```

What billing city appears in row 15 of your query result?

- (●) Reno
- ( ) London
- ( ) Oslo
- ( ) Santiago

Correct

The clause **`DISTINCT billing_city`** will remove duplicate entries from the *billing_city* column. The complete query is **`SELECT DISTINCT billing_city FROM invoice ORDER BY invoice_id`**. The DISTINCT clause removes duplicate entries from your query result. The billing city Reno appears in row 15 of your query result.

5. You are working with a database table that contains customer data. The table includes columns about customer location such as *city*, *state*, *country*, and *postal_code*. You want to check for postal codes that are greater than 7 characters long. **1 / 1 point**

You write the SQL query below. Add a LENGTH function that will return any postal codes that are greater than 7 characters long.

```
1  SELECT *
2  FROM
3  customer
4  WHERE LENGTH(postal_code)>7
5
```

Run

Reset

```
+-------------+------------+-----------+-----------------------------------------------+-------------------
| customer_id | first_name | last_name | company                                       | address
+-------------+------------+-----------+-----------------------------------------------+-------------------
|           1 | Luís       | Gonçalves | Embraer - Empresa Brasileira de Aeronáutica S.A. | Av. Brigadeiro Fari
|          10 | Eduardo    | Martins   | Woodstock Discos                              | Rua Dr. Falcão Filh
|          11 | Alexandre  | Rocha     | Banco do Brasil S.A.                          | Av. Paulista, 2022
|          12 | Roberto    | Almeida   | Riotur                                        | Praça Pio X, 119
|          13 | Fernanda   | Ramos     | None                                          | Qe 7 Bloco G
|          16 | Frank      | Harris    | Google Inc.                                   | 1600 Amphitheatre P
|          17 | Jack       | Smith     | Microsoft Corporation                         | 1 Microsoft Way
|          18 | Michelle   | Brooks    | None                                          | 627 Broadway
|          20 | Dan        | Miller    | None                                          | 541 Del Medio Avenu
|          53 | Phil       | Hughes    | None                                          | 113 Lupus St
+-------------+------------+-----------+-----------------------------------------------+-------------------
```

What is the last name of the customer that appears in row 10 of your query result?

- (●) Hughes
- ( ) Rocha
- ( ) Ramos
- ( ) Brooks

Correct

The function **`LENGTH(postal_code) > 7`** will return any postal codes that are greater than 7 characters long. The complete query is **`SELECT * FROM customer WHERE LENGTH(postal_code) > 7`**. The LENGTH function counts the number of characters a string contains. Hughes is the last name of the customer that appears in row 10 of your query result.

6. Fill in the blank: _____ refers to the process of converting data from one type to another. **1 / 1 point**

- ( ) Querying
- ( ) Formatting
- (●) Typecasting
- ( ) Cleaning

Correct

Typecasting refers to the process of converting data from one type to another.

7. Fill in the blank: In SQL databases, the _____ function can be used to convert data from one datatype to another. **1 / 1 point**

- ○ SUBSTR
- ○ LENGTH
- ○ TRIM
- ◉ CAST

Correct
The CAST function can be used to convert data from one datatype to another.

8. A data analyst is cleaning survey data. The results for an optional question contain many nulls. What function can the analyst use to eliminate the null values from the results? **1 / 1 point**

- ○ LENGTH
- ○ CONCAT
- ○ CAST
- ◉ COALESCE

Correct
The analyst can use the COALESCE function to eliminate the null values from the results.

9. You are working with a database table that contains invoice data. The table includes columns about billing location such as *billing_city*, *billing_state*, and *billing_country*. You want to retrieve the first 4 letters of each city name. You decide to use the SUBSTR function to retrieve the first 4 letters of each city name, and use the AS command to store the result in a new column called *new_city*. **1 / 1 point**

You write the SQL query below. Add a statement to your SQL query that will retrieve the first 4 letters of each city name and store the result in a new column as *new_city*.

NOTE: The three dots (...) indicate where to add the statement.

```
1
2  SELECT invoice_id, SUBSTR(billing_city,1,4) AS new_city FROM
3  invoice
4  ORDER BY
5  billing_city
```

Run

Reset

```
+------------+----------+
| invoice_id | new_city |
+------------+----------+
|         32 | Amst     |
|        161 | Amst     |
|        184 | Amst     |
|        206 | Amst     |
|        258 | Amst     |
|        379 | Amst     |
|        390 | Amst     |
|         23 | Bang     |
|         45 | Bang     |
|         97 | Bang     |
|        218 | Bang     |
|        229 | Bang     |
|        284 | Bang     |
|          7 | Berl     |
|         29 | Berl     |
|         30 | Berl     |
|         40 | Berl     |
|         52 | Berl     |
|         95 | Berl     |
|        104 | Berl     |
|        224 | Berl     |
|        225 | Berl     |
|        236 | Berl     |
|        247 | Berl     |
|        269 | Berl     |
+------------+----------+
(Output limit exceeded, 25 of 412 total rows shown)
```

What invoice ID number appears in row 7 of your query result?

- ○ 206
- ○ 23
- ◉ 390
- ○ 97

Correct
The statement **`SUBSTR(billing_city, 1, 4) AS new_city`** will retrieve the first 4 letters of each city name and store the result in a new column as *new_city*. The complete query is **`SELECT invoice_id, SUBSTR(billing_city, 1, 4) AS new_city FROM invoice ORDER BY billing_city`**. The SUBSTR function extracts a substring from a string. This function instructs the database to return 4 characters of each billing city, starting with the first character. The invoice ID number 390 appears in row 7 of your query result.