Congratulations! You passed!

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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. What are some of the benefits of using SQL for analysis? Select all that apply. **1 / 1 point**

- ☑ SQL can pull information from different database sources.

Correct
Some benefits of SQL include tracking changes across a team, interacting with database programs, and pulling information from different database sources.

- ☑ SQL interacts with database programs.

Correct
Some benefits of SQL include tracking changes across a team, interacting with database programs, and pulling information from different database sources.

- ☐ SQL has built-in functionalities.
- ☑ SQL tracks changes across a team.

Correct
Some benefits of SQL include tracking changes across a team, interacting with database programs, and pulling information from different database sources.

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_state*. You want to remove duplicate entries for billing state 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_state* column.

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

```
SELECT
DISTINCT(billing_state)
FROM
invoice
ORDER BY
invoice_id
```

Run

Reset

What billing state appears in row 17 of your query result?

- ○ CA
- ◉ AZ
- ○ NV
- ○ WI

Correct

The clause **`DISTINCT billing_state`** will remove duplicate entries from the *billing_state* column. The complete query is **`SELECT DISTINCT billing_state FROM invoice ORDER BY invoice_id`**.

The DISTINCT clause removes duplicate entries from your query result. The billing state AZ appears in row

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.

```
SELECT
*
FROM
customer
WHERE
LENGTH(postal_code)>7;
```

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
- ○ Brooks
- ○ Ramos
- ○ Rocha

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**

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

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**

- (●) CAST
- ( ) TRIM
- ( ) SUBSTR
- ( ) LENGTH

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

8. What SQL function lets you add strings together to create new text strings that can be used as unique keys? **1 / 1 point**

- ( ) COALESCE
- (●) CONCAT
- ( ) CAST
- ( ) LENGTH

Correct
The CONCAT function lets you add strings together to create new text strings that can be used as unique keys.

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  SELECT
2  invoice_id,
3  SUBSTR(billing_city,1,4) as new_city
4  FROM
5  invoice
6  ORDER BY
7  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?

- (●) 390
- ( ) 206
- ( ) 23
- ( ) 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.