Congratulations! You passed!
TO PASS 80% or higher

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GRADE
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Weekly challenge 3

LATEST SUBMISSION GRADE
100%

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

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

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 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 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 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 creates many new tables in their company's database. When the project is complete, the analyst wants to remove the tables so they don't clutter the database. What SQL commands can they use to delete the tables? **1 / 1 point**

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

Correct
The analyst can use the DROP TABLE IF EXISTS query to delete the tables so they don't clutter 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
2  distinct billing_city
3  FROM
4  invoice
5  ORDER BY
6  invoice_id
```

Run
Reset

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

- Santiago
- London
- Oslo
- Reno

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.

```
SELECT
*
FROM
customer
WHERE
length(postal_code) > 7
```

Run
Reset

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

- Hughes
- Brooks
- Rocha
- Ramos

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. In SQL databases, what data type refers to a number that contains a decimal? **1 / 1 point**

- Boolean
- Integer
- String
- Float

Correct
In SQL databases, the float data type refers to a number that contains a decimal.

7. A data analyst is working with product sales data. They import new data into a database. The database recognizes the data for product price as text strings. What SQL function can the analyst use to convert text strings to floats? **1 / 1 point**

- CAST
- TRIM
- LENGTH
- SUBSTR

Correct
The analyst can use the CAST function to convert text strings to floats.

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**

- CONCAT
- COALESCE
- CAST

LENGTH

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.

```
SELECT
invoice_id,
substr(billing_city,1,4) as new_city
FROM
invoice
ORDER BY
billing_city
```

Run

Reset

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

- 97
- 390
- 23
- 206

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.