Select a New City Using BigQuery

Key Takeaways

Task 1

Overview and Import Data Into BigQuery

- **BigQuery** is a data warehouse on Google Cloud that can be used to query and filter large datasets, aggregate results, and perform complex operations.
- To use BigQuery, go to console.cloud.google.com.
- There are multiple ways to import a dataset into BigQuery, such as uploading a CSV file. A CSV is a delimited text file that uses commas to separate values.

Task 2

Identify Cities that Match the Temperature Requirements

- A **SELECT clause** specifies which columns to include in the results.
- A **FROM clause** that tells SQL which table to extract data from.
- A **WHERE clause** specifies the criteria that must be met from within a particular row.
- Here is an example of a SQL statement that includes all three of these clauses:

```
SELECT
   city_name,
   avg_temp,
   avg_commute,
   happiness_ranking
FROM
    city_data.cities
WHERE
    avg_temp BETWEEN 45 AND 65
```

Task 3

Narrow Down Cities Based on Commute Times

- It's possible to add more than one condition in a WHERE clause.
- When you add additional criteria in the WHERE clause, they are separated by AND.

For example:

```
WHERE
    avg_temp BETWEEN 45 AND 65
    AND avg_commute < 60
```

Task 4

Narrow Down Results Using Happiness Rankings

- To further narrow down the cities in your search, add another criterion in your WHERE clause.
- Move the semicolon in your WHERE clause to the very end of your statement.

For example:

```
WHERE
    avg_temp BETWEEN 45 AND 65
    AND avg_commute < 60
    AND happiness_ranking <= 15
```

Task 5

(Optional) Analyze Alternative Scenarios

- Effective data analysts are able to manipulate queries to analyze different parts of a dataset.
- To edit the results of your query, adjust any of the clauses or numbers in your statement. You can also add or remove criteria from your WHERE clause.