

## SQLBolt Review 1 — Tasks

Source: [https://sqlbolt.com/lesson/select\\_queries\\_review](https://sqlbolt.com/lesson/select_queries_review)

Q) List all the Canadian cities and their populations

Ans:

```
SELECT City, Population
FROM north_american_cities
WHERE Country = "Canada";
```

### Explanation:

- **SELECT City, Population:** Chooses only the city names and their population values.
- **FROM north\_american\_cities:** The data is pulled from the `north_american_cities` table.
- **WHERE Country = "Canada":** Filters the records to include **only cities in Canada**.

Q) Order all the cities in the United States by their latitude from north to south

Ans:

```
SELECT *
FROM north_american_cities
WHERE COUNTRY = "United States"
ORDER BY latitude DESC;
```

### Explanation:

- **SELECT \*:** Retrieves all columns from the table.

- **WHERE Country = "United States"**: Filters to include **only U.S. cities**.
- **ORDER BY latitude DESC**: Sorts cities by latitude in **descending order**—from **north (high latitude)** to **south (low latitude)**.

Q) List all the cities west of Chicago, ordered from west to east

Ans:

```
SELECT city, longitude
FROM north_american_cities
WHERE longitude < -87.629798
ORDER BY longitude ASC;
```

**Explanation:**

- **longitude < -87.629798**: Filters for cities that are **west of Chicago** (Chicago's longitude is -87.629798).
- **ORDER BY longitude ASC**: Orders cities by longitude **from west (more negative) to east (less negative)**

Q ) List the two largest cities in Mexico (by population)

Ans:

```
SELECT *
FROM north_american_cities
WHERE Country = "Mexico"
ORDER BY population DESC
LIMIT 2;
```

**Explanation:**

- **WHERE Country = "Mexico"**: Filters only Mexican cities.
- **ORDER BY population DESC**: Sorts cities by population in **descending order** (largest first).
- **LIMIT 2**: Retrieves **only the top 2** cities.

Q) List the third and fourth largest cities (by population) in the United States and their population

Ans:

```
SELECT *  
FROM north_american_cities  
WHERE Country = "United States"  
ORDER BY population DESC  
LIMIT 2 OFFSET 2;
```

**Explanation:**

- **ORDER BY population DESC**: Sorts U.S. cities from largest to smallest population.
- **LIMIT 2 OFFSET 2**: Skips the **first two largest cities** and returns the **next two (3rd and 4th largest)**.

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