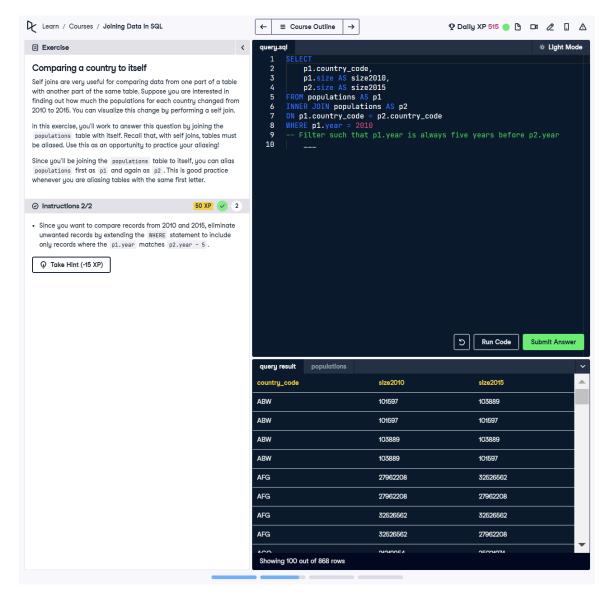
## **Self Join Query: Filtering by Year Difference**

This document demonstrates the use of a self join to compare population sizes of countries between two specific years (2010 and 2015), ensuring the years are exactly five years apart by adding an additional filter to the WHERE clause.

Below is the instruction and query setup along with query results:



## -- SQL Query Using Self Join with Year Difference Filter SELECT

p1.country\_code,

```
p1.size AS size2010,
p2.size AS size2015
FROM populations AS p1
INNER JOIN populations AS p2
ON p1.country_code = p2.country_code
WHERE p1.year = 2010
AND p2.year = p1.year + 5;
```

Explanation: This query compares population sizes for the same country between 2010 and 2015 by:

- 1. \*\*Self Join\*\*: Joins the 'populations' table to itself using the 'country\_code' column.
- 2. \*\*Aliases (p1 and p2)\*\*: Differentiates the two instances of the 'populations' table.
- 3. \*\*SELECT Statement\*\*: Retrieves the 'country\_code', population size for 2010 (aliased as 'size2010'), and population size for 2015 (aliased as 'size2015').
- 4. \*\*WHERE Clause\*\*: Ensures that:
- Data is filtered for 2010 in the first instance (p1) and 2015 in the second instance (p2).
- The years differ by exactly five years (`p2.year = p1.year + 5`). This ensures accurate comparisons of population sizes across a specific time interval.