SQL CODE
WRITE-UP

WEATHER OBSERVATION STATION

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Aggregation

Hackerrank

Intermediate

Consider ***P1(a,b)*** and ***P2(c,d)*** to be two points on a 2D plane.

a happens to equal the minimum value in Northern Latitude (LAT_N in STATION).

b happens to equal the minimum value in Western Longitude (LONG_W in STATION).

c happens to equal the maximum value in Northern Latitude (LAT_N in STATION).

d happens to equal the maximum value in Western Longitude (LONG_W in STATION).

Query the Manhattan Distance between points ***P1*** and ***P2*** and round it to a scale of 4 decimal places.

INPUT FORMAT

The **STATION** table is described as follows:

COLUMN	TYPE
ID	Number
CITY	Varchar(21)
STATE	Varchar(2)
LAT_N	Number
LONG_W	Number

where LAT_N is the northern latitude and LONG_W is the western longitude

CODE SOLUTION

```
/*

a – c + b – d

*/

SELECT

ROUND(ABS(MIN(LAT_N) – MAX(LAT_N)) + ABS(MIN(LONG_W) – MAX(LONG_W)),4)

FROM STATION
```

SOLUTION PROCESS

- Comment section (Book-ended by /*) : Contains formulae for Manhattan distance
- Absolute function: Original MD formulae denoted each value with absolute symbol for accurate calculation
- Min and Max function: Finding values ***a, b, c, d***
- Round function: Nested MD equation to produce 4-decimal solution

OUTPUT

```
259.6859
```