Problem 613: Shortest Distance in a Line

Problem Information

Difficulty: Easy
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Table:

Point

+-------------+------+ | Column Name | Type | +-------------+------+ | x | int | +-------------+------+ In SQL, x is the primary key column for this table. Each row of this table indicates the position of a point on the X-axis.

Find the shortest distance between any two points from the

Point

table.

The result format is in the following example.

Example 1:

Input:

Point table: +----+ | x | +----+ | -1 | | 0 | | 2 | +----+

Output:

+----------+ | shortest | +----------+ | 1 | +----------+

Explanation:

The shortest distance is between points -1 and 0 which is $|(-1) - 0| = 1$.

Follow up:

How could you optimize your solution if the

Point

table is ordered

in ascending order

?

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def shortest_distance(point: pd.DataFrame) -> pd.DataFrame:
```

Solutions

MySQL Solution:

```
# Write your MySQL query statement below
```

MS SQL Server Solution:

```
/* Write your T-SQL query statement below */
```

PostgreSQL Solution:

```
-- Write your PostgreSQL query statement below
```

Oracle Solution:

```
/* Write your PL/SQL query statement below */
```

Pandas Solution:

```python
import pandas as pd

def shortest_distance(point: pd.DataFrame) -> pd.DataFrame:
```