# Problem 612: Shortest Distance in a Plane

## Problem Information

**Difficulty:** Medium
**Acceptance Rate:** 0.00%
**Paid Only:** No

## Problem Description

Table:

Point2D

+-------------+------+ | Column Name | Type | +-------------+------+ | x | int | | y | int | +-------------+------+ (x, y) is the primary key column (combination of columns with unique values) for this table. Each row of this table indicates the position of a point on the X-Y plane.

The distance between two points

p

1

(x

1

, y

1

)

and

p

2

(x

2

, y

2

)

is

sqrt((x

2

- x

1

)

2

+ (y

2

- y

1

)

2

)

.

Write a solution to report the shortest distance between any two points from the

Point2D

table. Round the distance to

two decimal points

.

The result format is in the following example.

Example 1:

Input:

Point2D table: +----+----+ | x | y | +----+----+ | -1 | -1 | | 0 | 0 | | -1 | -2 | +----+----+

Output:

+----------+ | shortest | +----------+ | 1.00 | +----------+

Explanation:

The shortest distance is 1.00 from point (-1, -1) to (-1, 2).

## 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(point2_d: pd.DataFrame) -> pd.DataFrame:
```

## Solutions

**MySQL Solution:**

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