

## Shortest Distance in a Binary Maze

Given a  $n * m$  matrix **grid** where each element can either be **0** or **1**. You need to find the shortest distance between a given source cell to a destination cell. The path can only be created out of a cell if its value is 1.

If the path is not possible between source cell and destination cell, then return **-1**.

**Note :** You can move into an adjacent cell if that adjacent cell is filled with element 1. Two cells are adjacent if they share a side. In other words, you can move in one of the four directions, Up, Down, Left and Right. The source and destination cell are based on the zero based indexing.

### **Example 1:**

#### **Input:**

```
grid[][] = {{1, 1, 1, 1},
             {1, 1, 0, 1},
             {1, 1, 1, 1},
             {1, 1, 0, 0},
             {1, 0, 0, 1}}
```

```
source = {0, 1}
```

```
destination = {2, 2}
```

#### **Output:**

```
3
```

#### **Explanation:**

```
1 1 1 1
```

```
1 1 0 1
```

```
1 1 1 1
```

```
1 1 0 0
```

```
1 0 0 1
```

The highlighted part in the matrix denotes the

shortest path from source to destination cell.

### Example 2:

#### Input:

```
grid[][] = {{1, 1, 1, 1, 1},
             {1, 1, 1, 1, 1},
             {1, 1, 1, 1, 0},
             {1, 0, 1, 0, 1}}
```

```
source = {0, 0}
```

```
destination = {3, 4}
```

#### Output:

```
-1
```

#### Explanation:

The path is not possible between source and destination, hence return -1.

### Your Task:

You don't need to read or print anything. Your task is to complete the function **shortestPath()** which takes the a 2D integer array **grid**, **source** cell and **destination** cell as an input parameters and returns the shortest distance between source and destination cell.

**Expected Time Complexity:**  $O(n * m)$

**Expected Space Complexity:**  $O(n * m)$

### Constraints:

- $1 \leq n, m \leq 500$
- $\text{grid}[i][j] == 0$  or  $\text{grid}[i][j] == 1$
- The source and destination cells are always inside the given matrix.