Our Solution(s) Run Code

Solution 1 Solution 2 Solution 3

```java
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import java.util.*;

class Program {
  static String UP = "up";
  static String RIGHT = "right";
  static String DOWN = "down";

  // O(n^2) time | O(n) space - where n is the number of coordinates
  public static int rectangleMania(Point[] coords) {
    Map<String, Map<Integer, List<Point>>> coordsTable = getCoordsTabl
    return getRectangleCount(coords, coordsTable);
  }

  public static Map<String, Map<Integer, List<Point>>> getCoordsTable(
    Map<String, Map<Integer, List<Point>>> coordsTable =
        new HashMap<String, Map<Integer, List<Point>>>();
    coordsTable.put("x", new HashMap<Integer, List<Point>>());
    coordsTable.put("y", new HashMap<Integer, List<Point>>());
    for (Point coord : coords) {
      if (!coordsTable.get("x").containsKey(coord.x)) {
        coordsTable.get("x").put(coord.x, new ArrayList<Point>());
      }
      if (!coordsTable.get("y").containsKey(coord.y)) {
        coordsTable.get("y").put(coord.y, new ArrayList<Point>());
      }
      coordsTable.get("x").get(coord.x).add(coord);
      coordsTable.get("y").get(coord.y).add(coord);
    }
    return coordsTable;
  }

```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```java
class Program {
  public static int rectangleMania(Point[] coords) {
    // Write your code here.
    return -1;
  }

  static class Point {
    public int x;
    public int y;

    public Point(int x, int y) {
      this.x = x;
      this.y = y;
    }
  }
}

```

Our Tests

Custom Output Submit Code

```
            new Program.Point(3, 1),
            new Program.Point(3, 0)
        };
    this.assertTrue(Program.rectangleOfMatrix(coords) == 1);
  }

  @Test
  public void testCase2() {
    Program.Point[] coords =
        new Program.Point[] {
          new Program.Point(0, 0),
          new Program.Point(0, 1),
          new Program.Point(1, 1),
          new Program.Point(1, 0),
          new Program.Point(2, 1),
```

Run or submit code when you're ready.