



< Previous



Next >

### Exercise 7

🔖 Bookmark this page

## Exercise 7

10.0/10.0 points (graded)

Consider once again our permutations of students in a line. Recall the nodes in the graph represent permutations, and that the edges represent swaps of adjacent students. We want to design a weighted graph, weighting edges higher for moves that are harder to make. Which of these could be easily implemented by simply assigning weights to the edges already in the graph?

- ☒ A) A large student who is difficult to move around in line.
- ☒ B) A sticky spot on the floor which is difficult to move onto and off of.
- ☐ C) A student who resists movement to the back of the line, but accepts movement toward the front.



Write a `WeightedEdge` class that extends `Edge`. Its constructor requires a weight parameter, as well as the parameters from `Edge`. You should additionally include a `getWeight` method. The string value of a `WeightedEdge` from node A to B with a weight of 3 should be "A→B (3)".

```
class WeightedEdge(Edge):
    def __init__(self, src, dest, weight):
        # Your code here
        pass
    def getWeight(self):
        # Your code here
        pass
    def __str__(self):
        # Your code here
        pass
```

```
1 class WeightedEdge(Edge):
2     def __init__(self, src, dest, weight):
3         self.src = src
4         self.dest = dest
5         self.weight = weight
6     def getWeight(self):
7         return self.weight
8     def __str__(self):
9         return str(self.src) + "->" + str(self.dest) + " (" + str(self.weight) + ")"
```

Press ESC then TAB or click outside of the code editor to exit

Correct

## Test results

CORRECT

[See full output](#)

[See full output](#)

Submit

Show all posts



by recent activity



[Objection regarding \[A\] \[B\] \[C\] checkbox question](#)

1

Dear Sirs: The formulation of the question is a bit more vague than I would like. Eg. what means \*\*\*'easily implemented'\*\*\*? Sure, it i...



[Would this be easier with Edge\(Object\) as a starting point?](#)

© All Rights Reserved



## edX

- [About](#)
- [Affiliates](#)
- [edX for Business](#)
- [Open edX](#)
- [Careers](#)
- [News](#)

## Legal

- [Terms of Service & Honor Code](#)
- [Privacy Policy](#)
- [Accessibility Policy](#)
- [Trademark Policy](#)
- [Sitemap](#)

## Connect

- [Blog](#)
- [Contact Us](#)
- [Help Center](#)
- [Security](#)
- [Media Kit](#)

