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A very minor point on Lab 4,...

Lab 4 Question C

discussion posted 2 years ago by [Pipsters](#)

After grading Lab 4, the first question that I miss is question C with the following code:

```
if len(current_walk) == len(vertices):
    if current_distance < best_distance:
        best_distance = current_distance
        best_walk = current_walk
else:
    for vertex in vertices:
        if vertex not in current_walk:
            last_vertex = current_walk[-1]
            current_walk.append(vertex)
            current_distance += adjacency_matrix[last_vertex][vertex]
            best_walkTemp, best_distanceTemp = auxbf(current_walk, best_walk, adjacency_matrix,
vertices, current_distance, best_distance)
            if best_distanceTemp < best_distance:
                best_distance = best_distanceTemp
                best_walk = best_walkTemp

return best_walk,best_distance
```

The output from the lab is:

```
the adjacency matrix is:
(0, 0):{(2, 0): 2, (2, 1): 3, (0, 1): 3}
(0, 1):{(0, 0): 3, (2, 0): 3, (2, 1): 3}
(2, 0):{(0, 0): 2, (2, 1): 1, (0, 1): 3}
(2, 1):{(0, 0): 3, (2, 0): 1, (0, 1): 3}
```

All of the values are correct, but the output differs in just the position of each vertex in the adjacency matrix. I got the rest of the lab working correctly from this. Essentially, does the order matter?

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1 response

[vgripon](#) (Staff)
2 years ago

You should not modify the values of current_walk and current_distance in the for loop. Instead, use temporary variables like:

```
last_vertex = current_walk[-1]
temp_walk = current_walk + [vertex]
temp_distance = current_distance + adjacency_matrix[last_vertex][vertex]
```

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