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Help

PROBLEM 2-1 (5/5 points)

Decide how the campus map problem can be modeled as a graph. For your own benefit, we encourage you to write a description of your design approach as a comment under the Problem 2 heading in `ps5.py`. This exercise will help you guide your thoughts as you approach this problem. Specific questions you may want to consider are: What do the graph's nodes represent in this problem? What do the graph's edges represent in this problem?

```
# Problem 2:
#
# Before you write any code, write a couple of sentences here
# describing how you will model this problem as a graph.

# This is a helpful exercise to help you organize your
# thoughts before you tackle a big design problem!
#
```

In the `load_map` function of `ps5.py` read in the building data from `mapFilename` and build a directed graph to properly represent the MIT campus map (according to the file).

```
def load_map(mapFilename):
    """
    Parses the map file and constructs a directed graph

    Parameters:
        mapFilename : name of the map file

    Assumes:
        Each entry in the map file consists of the following four
        positive integers, separated by a blank space:
            From To TotalDistance DistanceOutdoors
        e.g.
            32 76 54 23
        This entry would become an edge from 32 to 76.

    Returns:
        a directed graph representing the map
    """
    # TO DO
```

Hint: Pseudocode

When you have implemented this function, instantiate a graph and input your results for the following calls:

```
>>> mitMap = load_map("mit_map.txt")
>>> print isinstance(mitMap, Digraph)
```

True

```
>>> print isinstance(mitMap, WeightedDigraph)
```

True

PROBLEM 2-2 (5/5 points)

You should be able to obtain a set of which Nodes are in this map. This set should consist of strings. For example, if the mitMap has two nodes, Node('a') and Node('b'), the set of nodes should look like this, when printed out:
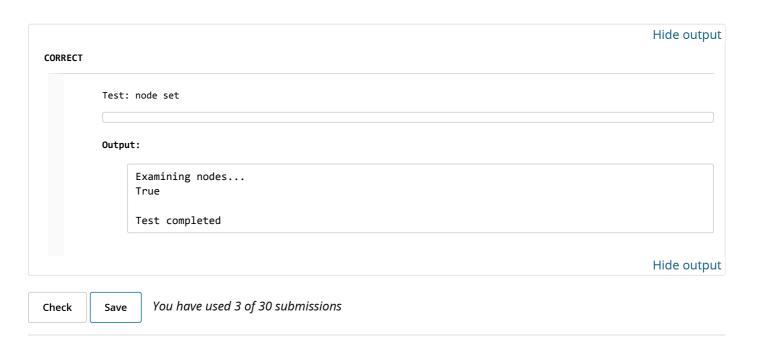
```
set([a, b])
```

```
>>> nodes = mitMap.nodes
```

In the box below, define a variable called `nodes`. Set it equal to the value of `mitMap.nodes`

```
1 # In this box, define a variable called `nodes`. Set it equal to the value you get
2 #  by calling `mitMap.nodes`
3 nodes = set([54, 50, 62, 64, 66, 68, 24, 26, 48, 46, 1, 3, 2, 5, 4, 7, 6, 9, 8, 13, 76, 38, 10, 39, 12, 14, 16,
4
```

Correct

Test results

Hide output

CORRECT

Test: node set

Output:

```
Examining nodes...
True

Test completed
```

Hide output

PROBLEM 2-3 (5/5 points)

You should be able to obtain a dictionary of which edges are in this map. This dictionary should map a string to a list of edges, which are represented as a list of [string, (total_distance, outdoor_distance)]. For example, if the mitMap has three nodes, a = Node('a'), b = Node('b'), and c = Node('c'), and there are edges: WeightedEdge(a, b, 10, 9), WeightedEdge(a, c, 12, 2), WeightedEdge(b, c, 1, 1), the dictionary of edges should look like this, when printed out:

```
{a: [[b, (10.0, 9.0)], [c, (12.0, 2.0)]], c: [], b: [[c, (1.0, 1.0)]]}
```

```
>>> edges = mitMap.edges
```

In the box below, define a variable called `edges`. Set it equal to the value you get by calling `mitMap.edges`.

```
1 # In this box, define a variable called `edges`. Set it equal to the value you get
2 #  by calling `mitMap.edges`
3 edges = {54: [[56, (40, 30)], [66, (45, 35)], [18, (20, 10)], [62, (20, 10)], [14, (70, 60)], [50, (80, 70)]],
4
5
```
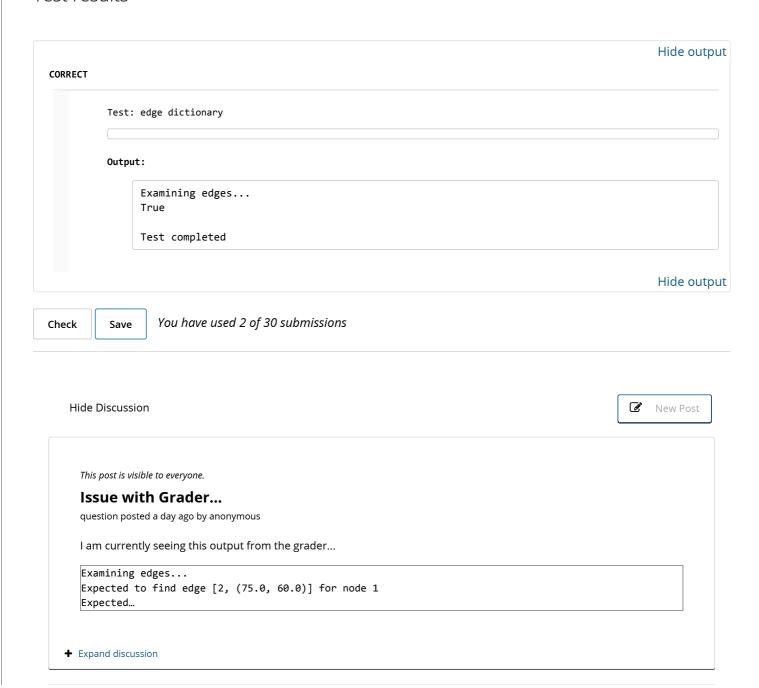
Correct

Test results

Hide output

CORRECT

Test: edge dictionary

Output:

```
Examining edges...
True

Test completed
```

Hide output

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Issue with Grader...

question posted a day ago by anonymous

I am currently seeing this output from the grader...

```
Examining edges...
Expected to find edge [2, (75.0, 60.0)] for node 1
Expected…
```

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How to get dictionary to print correctly

question posted a day ago by **ally555**

I do not understand how to get the dictionary to print correctly for the last question. Mine is printing out in this format "62: [54, 20, 10,...

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Expected to find edge [50, (25.0, 20.0)] for node 14 Did not expect to find edge [50, (25.0, 2.0)] for node 14

discussion posted 2 days ago by **Tayfour**

What this mean???

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Syntax Error??? (PS5, Prob 2-3)

discussion posted 4 days ago by **BillMartin**

I keep getting "incorrect". The only clue I get as to what's wrong is the following (last line of output): "18: [[56, (35.0, 0.0)], [54, (20.0,...

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Problem 2.3

discussion posted 4 days ago by **AndrewKahr**

Why waste your time, to get "5 points" like I did?

1. The **eq** operation caused an error and I commented it. Have fun, check Jack's book...

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Premature optimization?

discussion posted 5 days ago by **AlbertoCabelloSanchez**

I know it is "the root of all evil", but I started storing only the best edge between every two nodes. It is something The Grader doesn't like,...

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Problem 2-1 – ValueError: Node not in graph

discussion posted 6 days ago by **pdadam**

Adding the first edge to my graph (g.addEdge(edge)) results in "ValueError: Node not in graph", which is raised by the "if not (src in self.nodes...

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Problem 2-3

discussion posted 6 days ago by **luizparreira**

Hey Guys,

I have been having an issue with this part of the Pset, when I add the edges to the value of the `self.edges` dictionary, it does...

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Very Confused on __eq__ node function

discussion posted 6 days ago by **DylanRussell**

When I try to add a weighted edge to the weighted digraph, this line is called:

```
if not(src in self.nodes and dest in self.nodes)
```

This line...

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Displaying distances as floats?

discussion posted 8 days ago by **zzmjd**

Just curious what the point is of displaying edge distances as floats when the numbers from mit_map.txt are all integers. Even the comment at...

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unable to detect unidentified names

discussion posted 9 days ago by **ritece**

On my system- from graph import * shows the warning- "unable to detect unidentified names"

how to remove this?

+ Expand discussion

Pset5 2-2, 2-3

discussion posted 9 days ago by **SaraSamba**

Can someone help me understand what these questions are asking? When I run the tests in canopy I get the correct print outs but the grader tells...

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(nodes or edges) = ...??? (The result of calling...)

question posted 11 days ago by **RonySetijadiWnp**

below is the result of my computer ...
Test cases:
Loading map from file...
516 nodes loads ...

+ Expand discussion

Problems with mit_map.txt

question posted 12 days ago by **Vastidity**

I was having some trouble building my graph, so I opened up the mit_map.txt file to take a look. It did not look like I expected, and included...

+ Expand discussion

result on my comp...?

discussion posted 13 days ago by **RonySetijadiWnp**

Test cases: Loading map from file...

```
516 nodes loads
```

isinstance(mitMap, Digraph): True
isinstance(mitMap, WeightedDigraph): False ...

+ Expand discussion

isinstance(...)...???

discussion posted 13 days ago by anonymous

I am still confused by applying isinstance (...), and below is an example of the results that I have tried to print out.

[['32', '36', '70',...

+ Expand discussion

PROBLEM 2-2 - Really confused on what is being asked

question posted 14 days ago by **Senitar**

I am at a lost. So as not to show my complete answer, let me describe it. I have entered a set that consists of 37 string elements that represent...

+ Expand discussion

Getting edges?

discussion posted 15 days ago by **mandariehl**

When I try to list the edges, I don't get a tidy structure like the sample. I get {1: [<**main**.WeightedEdge object at 0x0000000008C85EF0>,...

+ Expand discussion

Edges dont fit in one line

question posted 16 days ago by **chechir**

Hello, I think My edges are right, but don't fit in the line when I tried to paste them.

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