

BVRIT HYDERABAD College of Engineering For Women

FIRE TRUCK- TEAM 77

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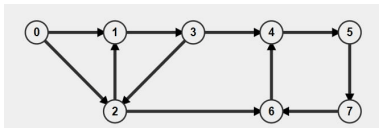
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Introduction

- There is a fireplace and the fire station department need to reach the fireplace.



Approach



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- Note down the vertices
- Print all the possible paths from the starting point to the destination
- Create a graph for the given input

Learnings

- 1. LaTeX
- 2. Gitlab
- 3. Team work
- 4. Self Learning

Challenges

- Making our code generalized

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Tech stack

- OS :Windows 10, Pycharm
- Language : Python
- LaTeX, Gitlab

Code



```
1  #case 1 ie when street number 6 is nearest street to the fireplace
2  print("CASE 1:")
3  from collections import defaultdict
4  class Graph:
5      def __init__(self,vertices):
6          self.V= vertices
7          self.graph = defaultdict(list)
8      def addvertices(self,u,v):
9          self.graph[u].append(v)
10     def printAllPathsUtil(self, u, d, visited, path): #marking the current vertex as visited
11         visited[u]= True
12         path.append(u)
13         if u==d:
14             print(path)
15         else:
16             for i in self.graph[u]: #to remove the current vertex from the path and we mark it as unvisited
17                 if visited[i]==False:
18                     self.printAllPathsUtil(i, d, visited, path)
19         path.pop()
20         visited[u]= False
21     def printAllPaths(self,s, d): # s is the start point and d is the destination point
22         visited =[False]*(self.V)
23         path = []
24         self.printAllPathsUtil(s, d,visited, path) #to print all the paths
25 #creating a graph
26 g = Graph(8) #total 8 paths are given in the input
27 g.addvertices(1,2)
28 g.addvertices(1,3)
29 g.addvertices(3,4)
30 g.addvertices(3,5)
31 g.addvertices(4,6)
32 g.addvertices(5,6)
33 g.addvertices(2,3)
34 g.addvertices(3,4)
35 g.addvertices(0,0)
36 s = 1 ; d = 6
37 print ("These are the routes possible from the firestation to the streetcorner 6:")
38 g.printAllPaths(s, d)
39
40
```


Demo/ Screen Shots

CASE 1:

These are the routes possible from the firestation to the streetcorner

[1, 2, 3, 4, 6]

[1, 2, 3, 5, 6]

[1, 2, 3, 4, 6]

[1, 3, 4, 6]

[1, 3, 5, 6]

[1, 3, 4, 6]

THANK YOU!!