First Search. Eap. No:

Date:

AIM:

To implement DFS algorithm to traverse a gra starting from a given node and visiting all reachable nodes in depthward exploration:

Char MAD

ALGORITH'M:

Step-1: Start

Step - 2: Intialize a set visited to keep track of visited node.

Step - 3: Stoot at the given starting node.

Step - 4: Mark the node as visited by adding it to neited set.

Step - 5: Process auccent node by printing (on performing another operation on it

Step - 6 : If neighbour node not visited, securisively apply Enter the man poek . ; ses algorithm.

eras for each Step - 7: Return to previous node once all adjacent node have been visited dining and rate

Step-8: Repeat process.

Step-9: Stop.

ine program here han successfully executed

```
Pode: 1000 MADV 871
                                            Ecp. 10:
                                                 That?
 def dfs (graph, start, visited = None):
     if visited is None:
          visited = set ()
                                                ·MIA
    visited, add (start) is any it to any of
 Print (start; end = \m) mo toprot a juliance avuscam
      for neighbor in graph [stard]: 2011 100100 and alfau
         if neighbour not in visited:
             As (graph, neighbor, veited)
      return visited
4 __name__== " _ main_=" : pull total
   graph = {
       A: [B; C], dot
wit doupoBillA's Dis E.J.
Print ("DFS travereal steating from node 'A':)
                      is that knamerones . 5 - dets.
dfs[graph, A
                     cumply majtimus to the q - dato
DFS Traversal starting from node A:
A.BDEFC
                                              300)
RESULT: who winder april , philoge . 1911 122 pot rite w pob
         program has been successfully executed
and the butput & writied and a bridge
                            O be - believ
```

Signor & state - filtering

(0,0) = state = (0,0)