EXP NO: 2

DATE:

DEPTH FIRST SEARCH

AIM: : (board) roidwas dring

To implement depth first search algorithm using python.

ALGORITHM:

- 1) Input the start node
- 2) Initialize an empty set visited to

track visited nodes

3) Call DFS with the start node and the graph:
-> If the node has n't been visited:

+ Print the mode

* Add the node to the visited set * Recursively call pps on all

neighboring nodes of the aurount node

1) Repeat the process until all reachable nodes form the start nodes are visited.

	Program:
	graph = & A x94402 x x9403
	'A': ['B', 'C'], was most pritarity 211
	'B': ['A', 'D', 'E'],
	'C': ['A', 'F'],
	'D': ['B'],
	'Ε': ['B', 'F'],
2	'F': ['c', 'E']
3	
-	def dfs C graph, node, visited):
	if node not in visited:
	print (node, end='')
	visited, aeld (node)
	for neighbor in graph [node]:
	dfs (graph, neighbor, visited)
	visited = set()
	start - node = "nput ("Enter a letter")
	exint ("DFS starting from node", start-node, ": ")
	fs (graph, start - node, visited)
	consigning fusions and suff
	and imple theel seast algorithm

output: Enter a letter A DFS starting from node A: ABDEFC Mailaria 15' 2 Na 19 : 15' T'at . 'a'n : 'a' F131 1317 . 131 sof descenach made visited): if node not in visited: (" the obon) Joing " for reighbor in goods (male): 46 (graph neishbox, vicited) visited = cot() (" soits a soint") toon to about the Daint ("DES starting from ando" start ando """) RESULT (hoffely)00 - leads (1000) of a Thus the python program is implemented for Depth First Soarch algorithm.