Ex. 2
Am
Aim: 10 implement Depth first Search coving gython
Step 1: Start
Stups: Create as creaty of to keep track of
Algorithm: Step1: Start Step2: Create an empty set to keep track of visited nade
graph for each pade, ask the less to input the node's
graph for each mode, ask the loss to local the vale's
reighbour and stone the information in directory and
reighbour and store the information in directory grap, Step4: Define a recurrine function of & Crimited, graph node
graph node)
The second secon
not in the visited than proceed
a Visit the node
Then Doo lead " privil the made and add it the vieites
Then proceed
a Vivit the node
* Print the node and add it to the visited
* Recention what and have
to sharp mich by in good all in-
recurively. Recorded visit reighbourd to seach neighbox in graph Cell off.
Steps: And the way to month to st.
Case the dis function with the visited se and
Case the diff function with the vitited Rt, graph and Exart node
Step b: The DFS travered is Do all it is
rechable nodes from the Start mode have been visited
THE DELL VILLE

CODE: def als (visited, graph, mode):
If node is not in visited: First (node) vigit add (node) for neighbox in graph Crode]. dfs (vivited, graph, neighbour) def (reate graph (): mum-hodes = int (input (" Enterno of modes: ")) for in range (num hades) hode = input (" Enter la mote:") beighbour = input ("Enterthe neighbore of (not) The parated by spaces:). So lit ()
graph Enode J = neighbours John graph Villed = got () graph = Create graph () 3 tout node:) Drint (" following is the DTS") dfs (vieited, graph, start note) OUTPUT 25 humber Nodes: 8 node : S neighbour Separated by Space: abc node a neighbour Separated by Space: Sd hade d neighbour separated by Space: DEF following when DFS:

UTPUT:	And the second s
ollowing is DFS from (starting from vertex 4)	
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Q 10:00 00 6	pt y wat years
Thus Death Exet &	arch is implemented and the
0.1	