Depth First Seouh Enys. No pale Aim TO write a grython grogram for Depth first search Algorithm Step 1: Initialize visited Ist: is create an empty set visited to been brack of visited node Step 2: Create the graph i) Ask the user the number of nodes in graph s oil For elach node, ask the weeks to input the node's neighbour and store the information in directory graph was bedieved and Sheps prs bundion a see of i) Define a recursive function sheek is node is wisited 1) It the node is not in the visited then Consideration of the contraction * visib the noderngo door and -> Print the node and add it to visit * Recursively visit neighbours - sel -> For each neighbour in graph[nodes] call dbs [visited, graph, neighbour] recursively Step 4 Start DES is Assa the wer to input the starting no incall the dbs() bunction Step 5: End DFS is the DFS traversal is complete when all reachable noder from the start-nade have been visited.

Example A AB ABE UNIA ABER ABEFD ABEFOC HYDROUNTH AVI) THE STATE OF THE wo sould am sound SADOLE SADOLE SADOLE DE LAND BO SUMMED SH JOSE SHE BF durge of restor and and also be defined the necket, reighbour exect which there is about deb als (visited, graph, node). is node is not in wisited BELLETHING COOKED DECEMBER OF SANDERS I visited, add (node) 30 3000 3 bor neighbour in graph [node] dbs (visited, graph, neighbour) deb create-graphen, and exist & 39 De grade La spain sign straight com num-nodes: int (input ("Enter no or nodes Exchange in mondaying decopy : "555" Bor in range (num nodes). node = input ("Enter the node:") neighbours: input (& "Enter the neighbour) of Enale & separated by space; spluber graph [node] = neighbours return graph 270 007 (BOOK SECRETARY STORY IN SECOND SECOND thatista mass sound

EXQUIDE: 1 got aviolited waste (sour) X000 graph = create _ graph () start - node: input ("Enter the starting node:") Print ("Following is the depth Birch search", dbs (visited, graph, start-node) MARGORAN output: Enter the number of nodes in the graph: 6 Enter the node: a Enter the neighbours of a separated by space: b colly liveus es state activity Enter the mode: best everyone (11) Enter the neighbours of b separated by space: a Enter the node: 8 0000 278 1 218 18 Enter the neighbors of a separated by space: b & Enter the node; b are successed Enter the neighbors of separated by space: ed Enter the node: d soulou do souloure will Enter the neighbors of a separated by space; & of Enter the node: C danced to made Enter the neighbors of c reparated by space a Enter the starting node for DFS: a Following is the outth birst search a belign new order becar to be and the second Regult Thus the DFS Program is successfully executed and output is verified