https://lh5.googleusercontent.com/dplghwJq6X4fhzS5H6mFhAFj9x6vI-Y8xCT8NFOTS1m1Xqxiq7nkadVUnCPhdF0ePu4loIUkqVjtvmt0NXfO2k9ohAj4vSqxuecZS-EBDoWiRGD-hgPkQa4QEs6nQaUoqsWtkTeeVLr0namIZbmEyQhttps://lh3.googleusercontent.com/BTBdPiSJjxGslQH3BeZD4BaoJZ39HCgQmAhUsT_pMmuCBkQpXF4Oufxkc29xElrbY7UOC_t-XYD8wCe8-xr0WMFCu3DhySoqaYXxkDd4zDvRd6uFglNfbvwNH7fYiWW7sNqHblYmu1wrAZV9wwFdXA

**GHARDA FOUNDATION**

**GHARDA INSTITUTE OF TECHNOLOGY, LAVEL**

Department of Computer Engineering

**Evaluation Sheet**

Class: TE-Computer Engineering Sem: V Subject: **Artificial Intelligence Lab(CSL604)**

Experiment No: 4

Title of Experiment: Study the implementation of Depth First Search Algorithm.

Name of Student: Niraj Nitin Surve Roll No: 68

Date of Performance:

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Evaluation Criteria | Max Marks | Marks Obtained |
| 1 | Practical Performance | 8 |  |
| 2 | Oral | 5 |  |
| 3 | Timely Submission | 2 |  |
|  | Total | 15 |  |

                   Signature of Subject Teacher

     (Prof. M. A. Khandke)

**Program Code –**

n = int(input("Enter the number of vertices: "))

m = int(input("Enter the number of edges: "))

graph = [None] \* n

visited = [False] \* n

for i in range(n):

graph[i] = []

for i in range(m):

u, v = [int(x) for x in input("Enter the edge (u v): ").split()]

graph[u].append(v)

start = int(input("Enter the starting vertex: "))

print("Depth First Traversal:")

def DFS(graph, visited, vertex):

visited[vertex] = True

print(vertex, end=' ')

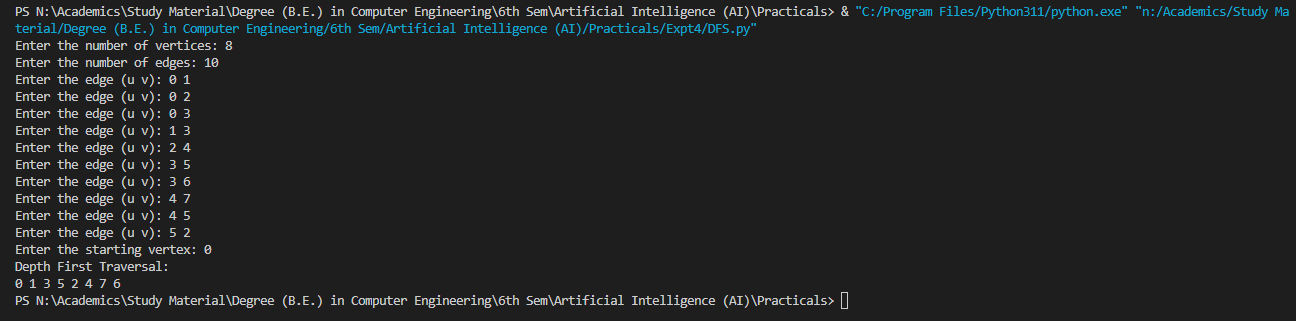
for i in graph[vertex]:

if not visited[i]:

DFS(graph, visited, i)

DFS(graph, visited, start)

**Output –**

****