

Using Python:

Using a Python dictionary to act as an adjacency list

```
graph = {  
    'A' : ['B','C'],  
    'B' : ['D', 'E'],  
    'C' : ['F', 'G'],  
    'D' : [],  
    'E' : ['H'],  
    'F' : ['H'],  
    'G' : [],  
    'H':[]  
}
```

visited = set() # Set to keep track of visited nodes of graph.

```
def dfs(visited, graph, node): #function for dfs  
    if node not in visited:  
        print (node, end = " ")  
        visited.add(node)  
        for neighbour in graph[node]:  
            dfs(visited, graph, neighbour)
```

Driver Code

```
print("The Depth-First Search is:")  
dfs(visited, graph, 'A')
```