

```
Print ("*****DFS*****")
```

Class Network:

```
def __init__(self):
```

```
    Self.adj_list = {}
```

```
def add_connection(self, src, dest):
```

```
    If src not in self.adj_list:
```

```
        Self.adj_list[src] = []
```

```
    Self.adj_list[src].append(dest)
```

```
def depth_first_search(self, start, target):
```

```
    Explored = set()
```

```
    To_visit = [start]
```

```
    While to_visit:
```

```
        Current = to_visit.pop()
```

```
        If current == target:
```

```
            Print(f"Target node {target} found!")
```

```
            Return True
```

```
        If current not in explored:
```

```
            Print(current)
```

```
            Explored.add(current)
```

```
            For neighbor in self.adj_list.get(current, []):
```

```
                If neighbor not in explored:
```

```
                    To_visit.append(neighbor)
```

```
    Print(f"Target node {target} not found.")
```

```
    Return False
```

```
Net = Network()
Net.add_connection('A', 'B')
Net.add_connection('A', 'C')
Net.add_connection('B', 'D')
Net.add_connection('B', 'E')
Net.add_connection('C', 'F')
Net.add_connection('D', 'G')
Net.add_connection('E', 'G')

Print("DFS starting from node A:")
Net.depth_first_search('A', 'G')
```