DFS 2

```
class Graph():
    def __init__(self):
        self.graph = {}

    def dfs(self, v, visited=None):
        if visited is None:
            visited = set()

        visited.add(v)
        print(v, end=" ")

        for n in self.graph.get(v, []):
            if n not in visited:
                self.dfs(n, visited)

graph = Graph()

num_node = int(input("Enter number of nodes: "))
for i in range(num_node):
    node = int(input(f"Enter the {i+1} node: "))
    has_children = input(f"Does the node {node} have any children? (y/n): ")

    if has_children.lower() == 'y':
        children = []

        while True:
            print(f"Menu for node {node}")
            print("1. Add child")
            print("2. Finish adding children")
```

```
        choice = int(input("Enter your choice: "))
        if choice == 1:
            child = int(input(f"Enter child for node {node}: "))
            children.append(child)
        elif choice == 2:
            break
        else:
            print("Invalid choice!")

    graph.graph[node] = children

start_node = int(input("Start node: "))
print("DFS traversal:")
graph.dfs(start_node)
```