

In [4]:

```

#DFS

import sys
tree = {'A': ['B', 'C', 'E'],
        'B': ['A', 'D', 'E'],
        'C': ['A', 'F', 'G'],
        'D': ['B'],
        'E': ['A', 'B', 'D'],
        'F': ['C'],
        'G': ['C']}

def dfs(tree, root):

    visited = []

    activelist = [root]

    dest= 'B'
    while activelist:

        node = activelist.pop()

        if node==dest:
            print('Found',visited)
            sys.exit(0)

        if node not in visited:

            visited.append(node)
            neighbours = tree[node]

            for neighbour in neighbours:
                activelist.append(neighbour)
    #return visited
    print("not found")
dfs(tree, 'A')

```

Found ['A', 'E', 'D']

An exception has occurred, use %tb to see the full traceback.

SystemExit: 0

/home/jovyan/IPython/core/interactiveshell.py:2969: UserWarning: To exit: use 'exit', 'quit', or Ctrl-D.
warn("To exit: use 'exit', 'quit', or Ctrl-D.", stacklevel=1)

In []:

