graph={

'A':['B','C'],

'B':['A','D','H'],

'C':['A','E','G'],

'D':['B','F','I'],

'E':['C'],

'F':['D'],

'G':['C'],

'H':['B'],

'I':['D']

}

path=[]

child=[]

def dfs(graph,src,dest):

if src not in path and dest not in path:

path.append(src)

if dest not in path:

for i in graph[src]:

if i!=dest and i not in path:

dfs(graph,i,dest)

elif i==dest and i not in path:

path.append(i)

break

src=input("enter source")

dest=input("enter destination")

dfs(graph,src,dest)

print(path)