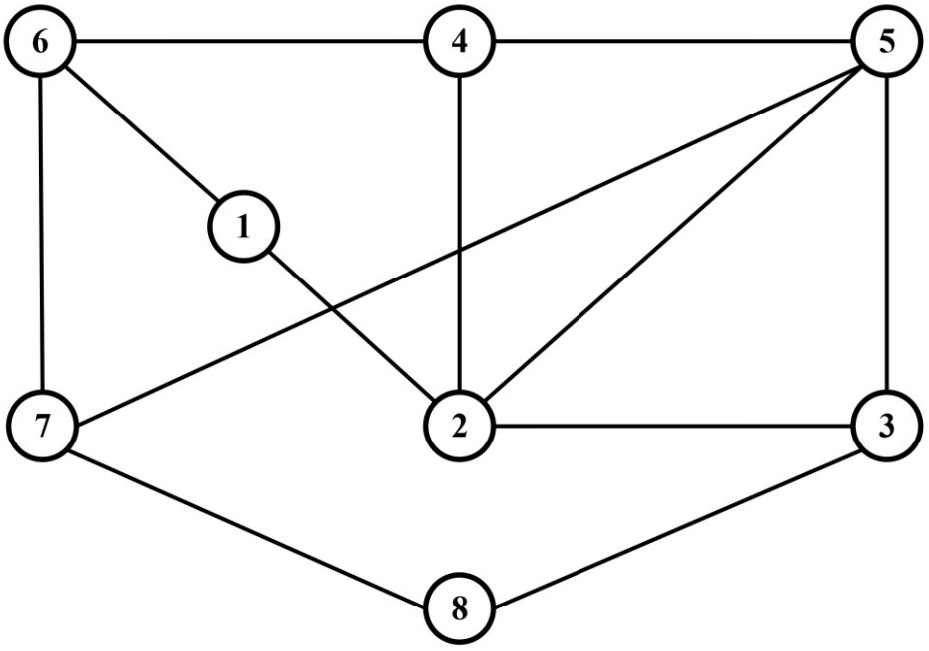
```
G = []
#-------------------------------------------------#
def Init(path,G):
    f = open(path)
    n = int(f.readline(),base=10)
    for i in range(n+1):
        G.append([])
        for j in range(n+1):
            G[i].append(0)
    while True:
        string = f.readline()
        if not string:
            break
        string = string.replace('\t',' ')
        k = string.index(' ')
        str = string[0:k]
        i = int(str,base=10)
        m = string.index(' ',k+1,-1)
        str = string[k+1:m]
        j = int(str,base=10)
        str = string[m+1:len(string)]
        x = int(str,base=10)
        G[i][j] = G[j][i] = x
    f.close()
    return n
#-------------------------------------------------#
def ViewMatrix(G,n):
    for i in range(1,n + 1):
        for j in range(1,n + 1):
            print("%d" % G[i][j], end = ' ')
        print()
#-------------------------------------------------#
#Duyet teo chieu rong BFS - Breadth First Search
def BFS(u,n):
```

```
    Q = []
    C = []
    for j in range(n + 1):
        Q.append(0)
        C.append(0)
    first = 1
    last = 1
    Q[last] = u
    C[u] = 1
    while first <= last:
        u = Q[first]
        first = first + 1
        print("%d" % u, end = '\t')
        for v in range(1, n + 1):
            if G[u][v] != 0 and C[v] == 0:
                last = last + 1
                Q[last] = v
                C[v] = 1
#-----------------------------------------------#
def main():
    n = Init("data\Graph1.inp",G)
    print("Xem ma trận G:", end = '\n')
    #ViewMatrix(G,n)
    u = 3
    BFS(u,n)
if __name__=="__main__":
    main()
```

Cho đồ thị G=(V,E) như sau:




```
8
1    2    1
1    6    1
2    3    1
2    4    1
2    5    1
3    5    1
3    8    1
4    5    1
4    6    1
5    7    1
6    7    1
7    8    1
```

Tạo file **`Graph.inp`** để lưu trữ đồ thị