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def isSafe(graph, color):
    for i in range(n):
        for j in range(i + 1, n):
            if (graph[i][j] and color[j] == color[i]):
                return False
        return True

def graphColoring(graph, m, i, color):
    if (i == n):
        if (isSafe(graph, color)):
            display(color)
            return True
        return False
    for j in range(1, m + 1):
        color[i] = j
        if (graphColoring(graph, m, i + 1, color)):
            return True
        color[i] = 0
    return False

def display(color):
    print("1")

n=int(input())
m=int(input())
e=int(input())
graph=[]
for i in range(n):
    a=[]
    for j in range(n):
        a.append()
    graph.append(a)
    for i in range(e):
        a=int(input())
        b=int(input())
        graph[a][b]=1
        graph[b][a]=1

color = [0 for i in range(n)]
if (not graphColoring(graph, m, 0, color)):
    print ("0")

```