

## Day 84 coding Statement:

### Solution:

```
import java.util.*;

public class Day84
{
    public boolean isPossible(boolean [][] graph,int []color,int node,int col,int n){
        for(int i =0;i<n;i++){
            if(graph[node][i] && color[i]==col)return false;
        }
        return true;
    }

    public boolean solve(int node,boolean [][] graph,int []color,int m,int n){
        if(node ==n) return true;
        for(int i =1;i<=m;i++){
            if(isPossible(graph,color,node,i,n)){
                color[node]=i;
                if(solve(node+1,graph,color,m,n))return true;
                color[node]=0;
            }
        }
        return false;
    }

    public boolean graphColoring(boolean graph[][], int m, int n) {
        int []color = new int[n];
        return solve(0,graph,color,m,n);
    }

    public static void main(String[] args) {
```

```
Scanner sc = new Scanner(System.in);
int n = sc.nextInt();
int m = sc.nextInt();
int e = sc.nextInt();
int a,b;
boolean graph[][] = new boolean[n][n];
for(int i=1 ; i<=e ; i++){
    a = sc.nextInt();
    b = sc.nextInt();
    graph[a][b] = true;
    graph[b][a] = true;
}
Day84 obj = new Day84();
if(obj.graphColoring(graph,m,n))
    System.out.print("1");
else
    System.out.print("0");
}
}
```