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import java.util.Arrays;
import java.util.Scanner;

public class Prims {
    static int a[][];
    static int V;

    public static void main(String [] args){
        Scanner input=new Scanner(System.in);
        System.out.print("Enter the number of vertices:");
        V=input.nextInt();
        System.out.println("Enter the cost matrix:");
        a=new int[V][V];
        for(int i=0;i<V;i++)
            for(int j=0;j<V;j++)
                a[i][j]=input.nextInt();
        Prim();
        input.close();
    }

    public static void Prim(){
        int no_edge=0, sum=0;
        boolean [] selected=new boolean[V];
        Arrays.fill(selected,false);
        selected[0]=true;
        System.out.println("Edge:Weight");
        while(no_edge<V-1){
            int x=0,y=0,min=999;
            for(int i=0;i<V;i++){
                if(selected[i]==true){
                    for(int j=0;j<V;j++){
                        if(!selected[j] && a[i][j]!=0){
                            if(min>a[i][j]){
                                min=a[i][j];
                                x=i;
                                y=j;
                            }
                        }
                    }
                }
            }
            System.out.println(x+"-"+y+": "+a[x][y]);
            sum+=a[x][y];
            selected[y]=true;
            no_edge++;
        }
        System.out.println("Cost of Tree:"+sum);
    }
}

```