PRIM'S ALGORITHM

```
import java.util.Scanner;
public class prims {
public static void main(String[] args) {
int w[][]=new int[10][10];
int n,i,j,s,k=0;
int min;
int sum=0;
int u=0,v=0;
int flag=0;
int sol[]=new int[10];
System.out.println("Enter the number of
vertices");
Scanner sc=new Scanner(System.in);
n=sc.nextInt();
for(i=1;i<=n;i++)
sol[i]=0;
System.out.println("Enter the weighted
graph");
for(i=1;i<=n;i++)
for(j=1;j<=n;j++)
w[i][j]=sc.nextInt();
System.out.println("Enter the source
vertex");
s=sc.nextInt();
sol[s]=1;
k=1;
while (k<=n-1)
{
min=99;
for(i=1;i<=n;i++)
for(j=1;j<=n;j++)
if(sol[i]==1&&sol[j]==0)
if(i!=j&&min>w[i][j])
{
min=w[i][j];
u=i;
v=j;
}
sol[v]=1;
sum=sum+min;
k++;
System.out.println(u+"->"+v+"="+min);
}
for(i=1;i<=n;i++)
if(sol[i]==0)
flag=1;
if(flag==1)
System.out.println("No spanning tree");
else
System.out.println("The cost of minimum
spanning tree is"+sum);
sc.close();
}
}
```