Find Minimum Cost Spanning Tree of a given undirected graph using Prim's algorithm.

Program:

```
#include<stdio.h>
#include<conio.h>
#include<process.h>
void prims();
int c[10][10],n;
void main()
{
 int i,j;

 printf("Enter the Number of vertices:");
 scanf("%d",&n);
 printf("Enter the cost matrix:\n");
 for(i=1;i<=n;i++)
 {
  for(j=1;j<=n;j++)
  {
   scanf("%d",&c[i][j]);
  }
 }
 prims();

}

void prims()
{
 int i,j,u,v,min;
 int ne=0,mincost=0;
 int elec[10];
 for(i=1;i<=n;i++)
 {
  elec[i]=0;
 }
 elec[1]=1;
 while(ne!=n-1)
 {
  min=9999;
  for(i=1;i<=n;i++)
  {
   for(j=1;j<=n;j++)
   {
    if(elec[i]==1)
    {
     if(c[i][j]<min)
     {
      min=c[i][j];
      u=i;
      v=j;
     }
    }
   }
  }
  if(elec[v]!=1)
  {
   printf("\n%d-->%d=%d\n",u,v,min);
```

```
  elec[v]=1;
  ne=ne+1;
  mincost=mincost+min;
 }
 c[u][v]=c[v][u]=9999;
}
printf("\nMincost=%d",mincost);
}
```

Output Screenshot: