

Program for prims algorithm

```
#include<stdio.h>

#include<conio.h>

int a,b,u,v,n,i,j,ne=1;

int visited[10]={0},min,mincost=0,cost[10][10];

int main()

{

printf("\nEnter the number of nodes:");

scanf("%d",&n);

printf("\nEnter the adjacency matrix:\n");

for(i=1;i<=n;i++)

for(j=1;j<=n;j++)

{

scanf("%d",&cost[i][j]);

if(cost[i][j]==0)cost[i][j]=999;

}

visited[1]=1;

printf("\n");

while(ne < n)

{

for(i=1,min=999;i<=n;i++)

for(j=1;j<=n;j++)

if(cost[i][j]< min)

if(visited[i]!=0)

{

min=cost[i][j];

a=u=i;

b=v=j;

}

if(visited[u]==0 || visited[v]==0){

printf("\n Edge %d:(%d %d) cost:%d",ne++,a,b,min);
```

```
mincost+=min;
```

```
visited[b]=1;
```

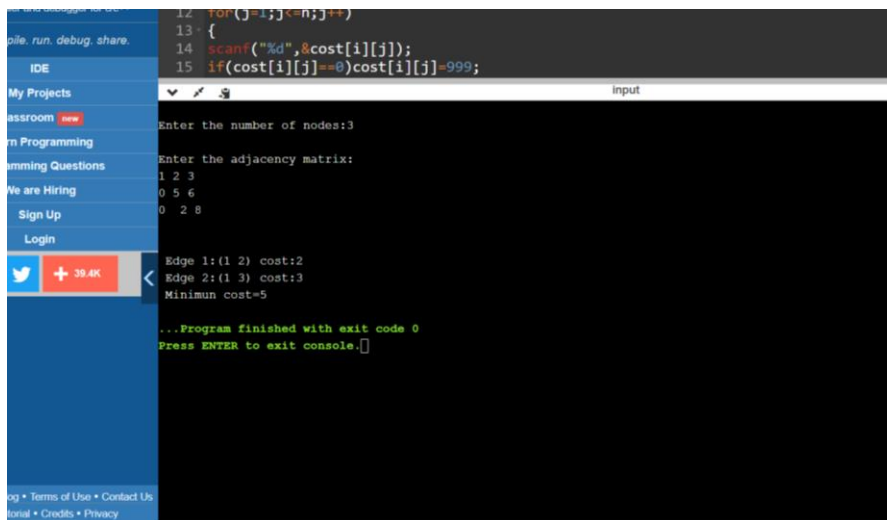
```
}
```

```
cost[a][b]=cost[b][a]=999;
```

```
}
```

```
printf("\n Minimun cost=%d",mincost);
```

```
}
```



```
12 for(j=i;j<=n;j++)
13 {
14     scanf("%d",&cost[i][j]);
15     if(cost[i][j]==0)cost[i][j]=999;
```

Enter the number of nodes:3

Enter the adjacency matrix:

```
1 2 3
0 5 6
0 2 8
```

Edge 1:(1 2) cost:2
Edge 2:(1 3) cost:3
Minimun cost=5

...Program finished with exit code 0
Press ENTER to exit console.