

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;

    }

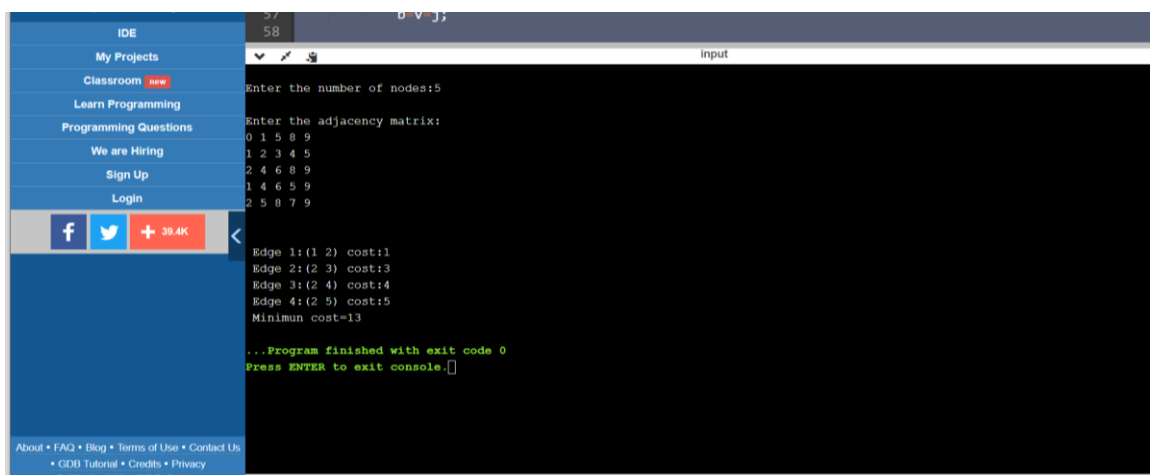
    cost[a][b]=cost[b][a]=999;

}

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

}

```



```

57      b=v-j;
58
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...Program finished with exit code 0
Press ENTER to exit console.

```

Enter the number of nodes:5
 Enter the adjacency matrix:
 0 1 5 8 9
 1 2 3 4 5
 2 4 6 8 9
 1 4 6 5 9
 2 5 8 7 9
 Edge 1:(1 2) cost:1
 Edge 2:(2 3) cost:3
 Edge 3:(2 4) cost:4
 Edge 4:(2 5) cost:5
 Minimum cost=13

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