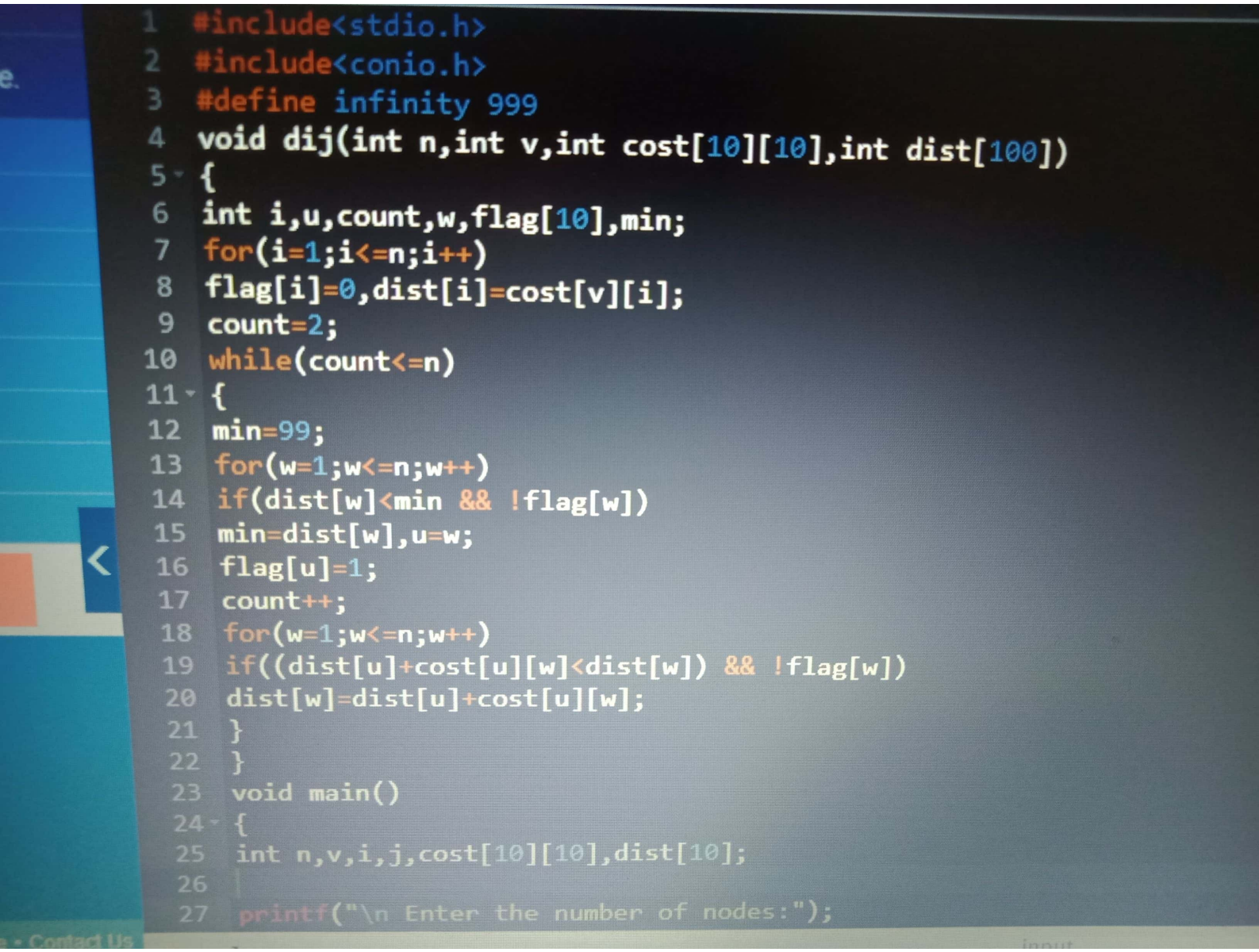
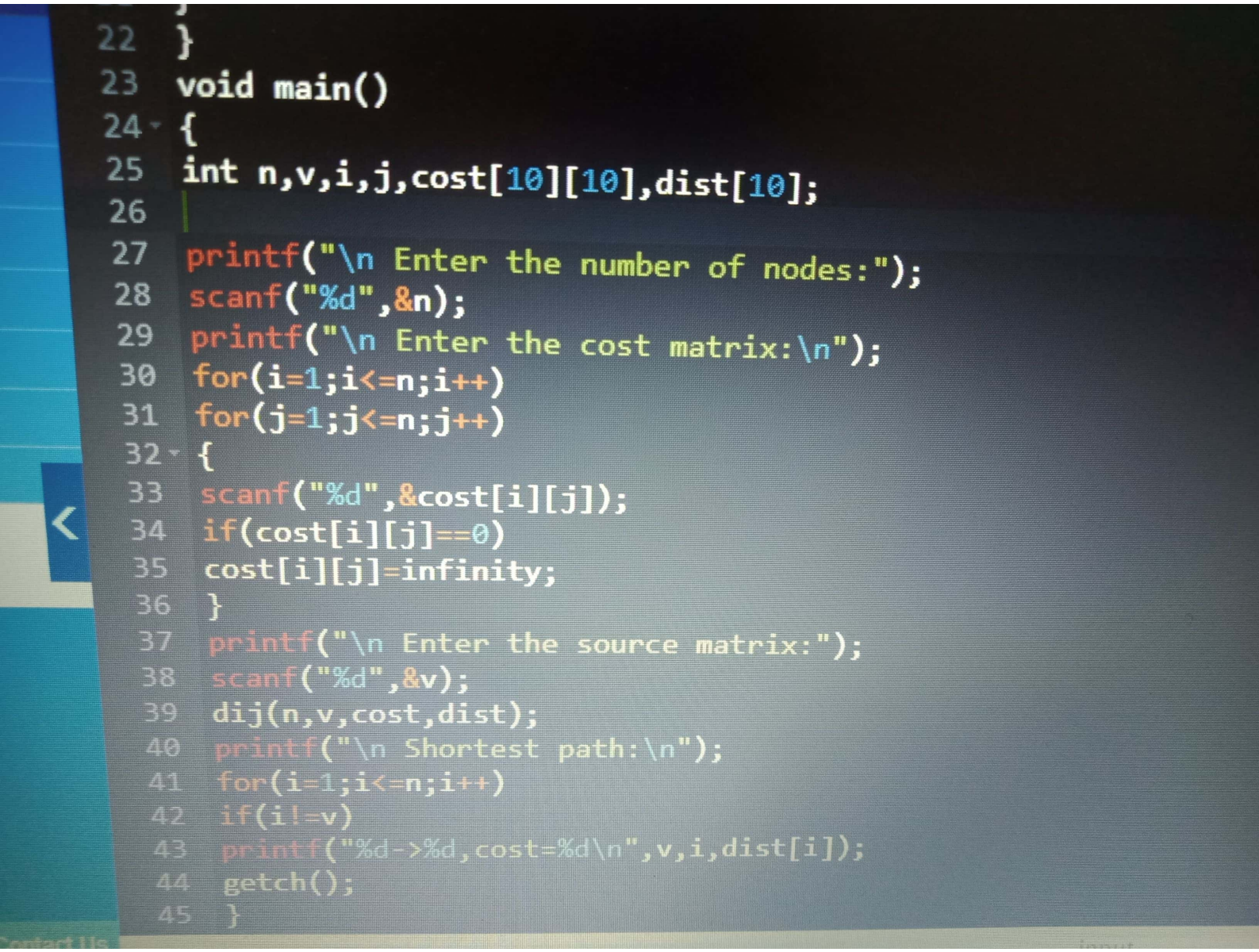


```c
#include<stdio.h>
#include<conio.h>
#define infinity 999
void dij(int n,int v,int cost[10][10],int dist[100])
{
int i,u,count,w,flag[10],min;
for(i=1;i<=n;i++)
flag[i]=0,dist[i]=cost[v][i];
count=2;
while(count<=n)
{
min=99;
for(w=1;w<=n;w++)
if(dist[w]<min && !flag[w])
min=dist[w],u=w;
flag[u]=1;
count++;
for(w=1;w<=n;w++)
if((dist[u]+cost[u][w]<dist[w]) && !flag[w])
dist[w]=dist[u]+cost[u][w];
}
}
void main()
{
int n,v,i,j,cost[10][10],dist[10];

printf("\n Enter the number of nodes:");
```



```
}
void main()
{
int n,v,i,j,cost[10][10],dist[10];

printf("\n Enter the number of nodes:");
scanf("%d",&n);
printf("\n Enter the cost 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]=infinity;
}
printf("\n Enter the source matrix:");
scanf("%d",&v);
dij(n,v,cost,dist);
printf("\n Shortest path:\n");
for(i=1;i<=n;i++)
if(i!=v)
printf("%d->%d,cost=%d\n",v,i,dist[i]);
getch();
}
```

```
Enter the number of nodes:3

Enter the cost matrix:
999 67 8
999 0 7
34 999 12

Enter the source matrix:1

Shortest path:
1->2,cost=67
1->3,cost=8


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