

```

#include<stdio.h>

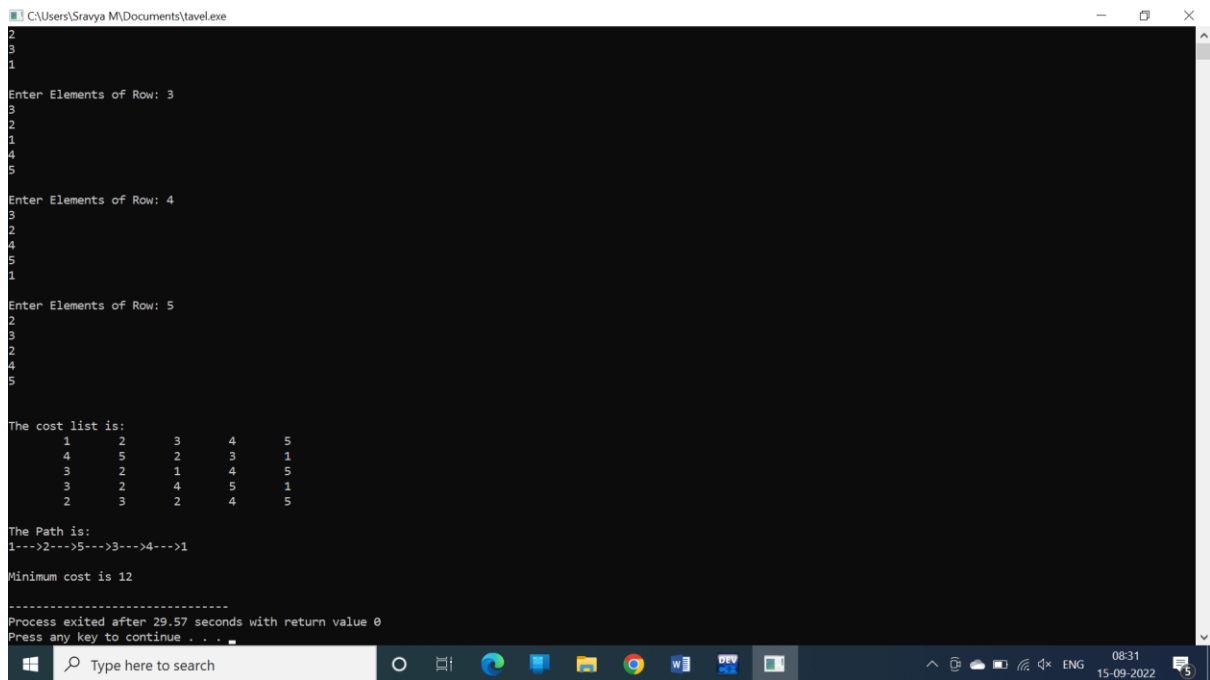
int G[50][50],x[50];

void next_color(int k)
{
    int i,j;
    x[k]=1;
    for(i=0;i<k;i++)
    {
        if(G[i][k]!=0 && x[k]==x[i])
            x[k]=x[i]+1;
    }
}

int main(){
    int n,e,i,j,k,l;
    printf("Enter no. of vertices : ");
    scanf("%d",&n);
    printf("Enter no. of edges : ");
    scanf("%d",&e);
    for(i=0;i<n;i++)
        for(j=0;j<n;j++)
            G[i][j]=0;
    printf("Enter indexes where value is 1-->\n");
    for(i=0;i<e;i++)
    {
        scanf("%d %d",&k,&l);
        G[k][l]=1;
        G[l][k]=1;
    }
    for(i=0;i<n;i++)
        next_color(i);
    printf("Colors of vertices -->\n");
}

```

```
for(i=0;i<n;i++)  
  
    printf("Vertex[%d] : %d\n",i+1,x[i]);  
  
return 0;  
}
```



C:\Users\Sravya M\Documents\tavel.exe

```
2  
3  
1  
Enter Elements of Row: 3  
3  
2  
1  
4  
5  
Enter Elements of Row: 4  
3  
2  
4  
5  
1  
Enter Elements of Row: 5  
2  
3  
2  
4  
5  
The cost list is:  
1 2 3 4 5  
4 5 2 3 1  
3 2 1 4 5  
3 2 4 5 1  
2 3 2 4 5  
The Path is:  
1--->2--->5--->3--->4--->1  
Minimum cost is 12  
-----  
Process exited after 29.57 seconds with return value 0  
Press any key to continue . . .
```