```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
int i,j,k,a,b,u,v,n,ne=1;
int min,mincost=0,cost[9][9],parent[9];
int find(int);
int uni(int,int);
void main()
{
      clrscr();
      printf("\n\tImplementation of Kruskal's algorithm\n");
      printf("\nEnter the no. of vertices:");
      scanf("%d",&n);
      printf("\nEnter the cost 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;
            }
      }
      printf("The edges of Minimum Cost Spanning Tree are\n");
      while(ne < n)
      {
            for(i=1,min=999;i<=n;i++)
            {
                  for(j=1;j <= n;j++)
                  {
                        if(cost[i][j] < min)
                        {
                              min=cost[i][j];
                              a=u=i;
                              b=v=j;
                        }
                  }
            }
            u=find(u);
            v=find(v);
            if(uni(u,v))
            {
                  printf("%d edge (%d,%d) =%d\n",ne++,a,b,min);
                  mincost +=min;
            }
            cost[a][b]=cost[b][a]=999;
      }
      printf("\n\tMinimum cost = %d\n",mincost);
      getch();
}
int find(int i)
{
```

```
      while(parent[i])
      i=parent[i];
      return i;
}
int uni(int i,int j)
{
      if(i!=j)
      {
            parent[j]=i;
            return 1;
      }
      return 0;
}
```

```
          Implementation of Kruskal's algorithm

   Enter the no. of vertices:4

   Enter the cost adjacency matrix:
   0 2 5 0
   5 0 2 0
   0 2 0 4
   6 0 2 0
   The edges of Minimum Cost Spanning Tree are
   1 edge (1,2) =2
   2 edge (2,3) =2
   3 edge (4,3) =2

          Minimum cost = 6
   _
```