Prims

```
#include <iostream>
#define I INT_MAX

using namespace std;

int cost[][8]=
    {{I,I,I,I,I,I,I,I},
    {I,I,25,I,I,I,5,I},
    {I,25,I,12,I,I,I,10},
    {I,I,12,I,8,I,I,I},
    {I,I,I,8,I,16,I,14},
    {I,I,I,I,16,I,20,18},
    {I,5,I,I,I,20,I,I},
    {I,I,10,I,14,18,I,I}};

int near[8]={I,I,I,I,I,I,I,I};
int t[2][6];

int main()
{
    int i,j,k,u,v,n=7,min=I;

    for(i=1;i<=n;i++)
    {
        for(j=i;j<=n;j++)
        {
            if(cost[i][j]<min)
            {
                min=cost[i][j];
                u=i;
                v=j;
            }
        }
    }
    t[0][0]=u;t[1][0]=v;
    near[u]=near[v]=0;

    for(i=1;i<=n;i++)
    {
        if(near[i]!=0)
        {
            if(cost[i][u]<cost[i][v])
                near[i]=u;
            else
                near[i]=v;
```

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        }
    }

    for(i=1;i<n-1;i++)
    {
        min=I;
        for(j=1;j<=n;j++)
        {
            if(near[j]!=0 && cost[j][near[j]]<min)
            {
                k=j;
                min=cost[j][near[j]];
            }
        }
        t[0][i]=k;
        t[1][i]=near[k];
        near[k]=0;

        for(j=1;j<=n;j++)
        {
            if(near[j]!=0 && cost[j][k]<cost[j][near[j]])
                near[j]=k;
        }

    }

    for(i=0;i<n-1;i++)
    {
        cout<<"("<<t[0][i]<<","<<t[1][i]<<")"<<endl;
    }

}
```