Graph coloring using backtracing

**#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);**

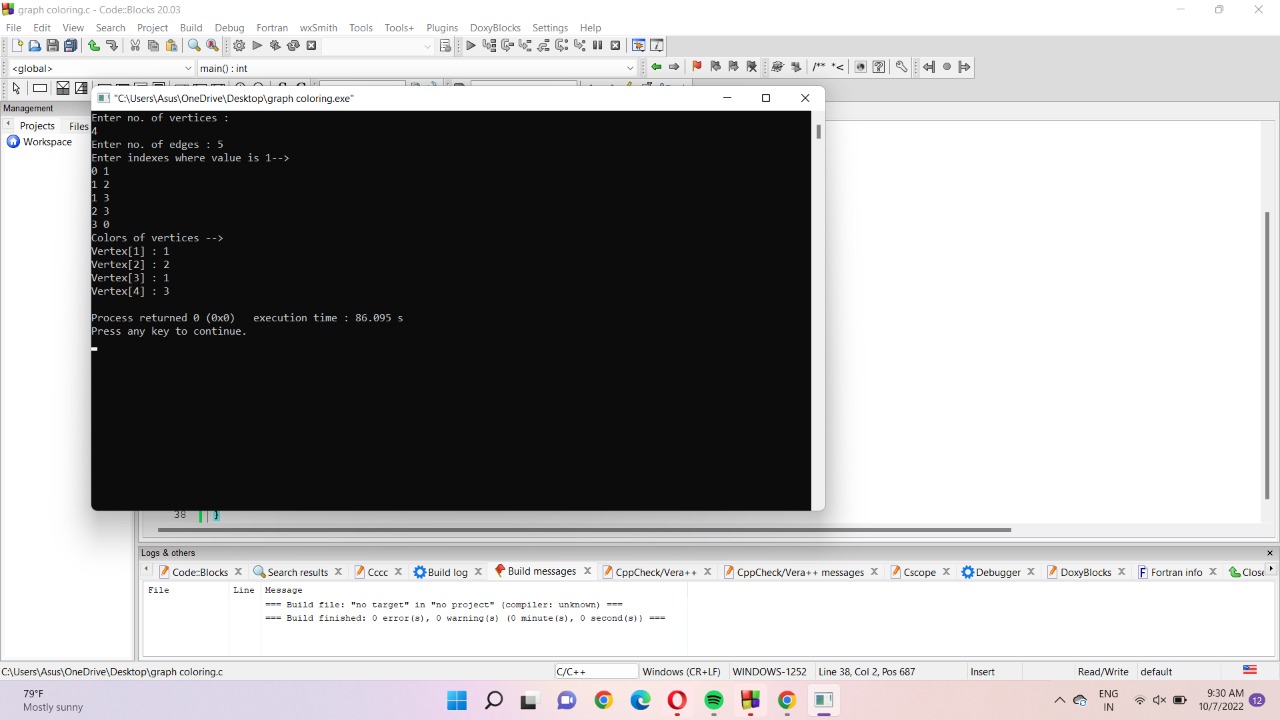
**Printf(“Colors of vertices 🡪\n”);**

**For(i=0;i<n;i++)**

**Printf(“Vertex[%d] : %d\n”,i+1,x[i]);**

**Return 0;**

**}**

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