**// LCS**

**/\***

**parameter: given two vector**

**return: their longest common subsequence**

**complexity: O(n\*m)**

**\*/**

int LCS(vector<int>v1, vector<int>v2)

{

int m=v1.size(),n=v2.size();

int c[m+5][n+5];

for(int i=0;i<=m;i++)

c[i][0]=0;

for(int i=0;i<=n;i++)

c[0][i]=0;

for(int i=1;i<=m;i++)

for(int j=1;j<=n;j++)

if(v1[i-1]==v2[j-1])

c[i][j]=c[i-1][j-1]+1;

else

c[i][j]=max(c[i-1][j],c[i][j-1]);

return c[m][n];

}