```c
#include<stdio.h>
#include<string.h>

int i,j,m,n,c[20][20];
char x[20],y[20],b[20][20];

void print(int i,int j)
{
		if(i==0 || j==0)
			return;
		if(b[i][j]=='c')
		{
			print(i-1,j-1);
			printf("%c",x[i-1]);
		}
		else if(b[i][j]=='u')
			print(i-1,j);
		else
			print(i,j-1);
}

void lcs()
{
		m=strlen(x);
		n=strlen(y);
		for(i=0;i<=m;i++)
			c[i][0]=0;
		for(i=0;i<=n;i++)
			c[0][i]=0;

		//c, u and d denotes cross, upward and downward directions respectively
		for(i=1;i<=m;i++)
			for(j=1;j<=n;j++)
			{
				if(x[i-1]==y[j-1])
				{
					c[i][j]=c[i-1][j-1]+1;
					b[i][j]='c';
				}
				else if(c[i-1][j]>=c[i][j-1])
				{
					c[i][j]=c[i-1][j];
					b[i][j]='u';
				}
				else
				{
					c[i][j]=c[i][j-1];
					b[i][j]='d';
```

```
                                                    }
                                    }
}

int main()
{

strcpy(x, "ABAZDC");
strcpy(y, "BACBAD");
printf("\n Longest Common SubSequence is ");
lcs();
printf("%c",x[i-1]);
print(m,n);
return 0;
}
```