

Aim: To write a program to calculate HCF & LCM of the given number according to given choice

Source Code:

```
// program to calculate HCF and LCM
#include <iostream.h>
#include <conio.h>
#include <process.h>
void main()
{
    clrscr();
    int lcm,hcf,n1,n2,ans;
    char ch;
    cout<<"=====\\
n";
    cout<<"
                Harshit program
\\n";
    cout<<"=====\\
n";
    do{
        cout << "\\n\\n(1).....for LCM \\n";
        cout << "(2).....for HCF \\n";
        cout << "(3)..... for exit \\n";
        cout << "Enter Your Choice : ";
        cin >> ans;
        if (ans ==1)
        {
            cout << "\\nEnter N1 and N2 : ";
            cin >> n1 >> n2;
            if (n1 < n2)
            {
                for (int i = n1;i>=1;i--)
                if (n1%i==0 && n2%i==0)
                {
                    lcm =i*(n1/i) * (n2/i);
                    cout << "LCM = " << lcm;
                    break;
                }
            }
            else if (n2 < n1)
            {
                for (int i = n2; i>=1; i--)
                if (n1%i==0&& n2%i==0 )
                {
                    lcm =i*(n1/i) * (n2/i);
                    cout << " Lcm=" <<lcm;
                    break;
                }
            }
        }
    }
    else
```

```

        {
            lcm = n1;
            cout << lcm;
        }
    }
    if (ans == 2)
    {
        cout<< "\nEnter the No1  and No 2  \n ";
        cin >> n1  >> n2;
        if (n1 >n2)
        {
            for (int i = n1;i>= 1; i --)
                if (n1 % i == 0 && n2 % i == 0)
                {
                    hcf = i;
                    cout << "HCF  =  " << hcf ;
                    break;
                }
        }
        if (n2 < n1)
        {
            for (int i = n2 ; i >= i ; i--);
            if( n1% i ==0 && n2 % i ==0)
            {
                hcf = i;
                cout << "hcf = " << hcf;
                break;
            }
        }
        else
        {
            hcf = n1 ;
            cout << "hcf = " << hcf;
        }
    }
    if (ans == 3)
    {
        exit(0);
    }
    cout << "\nDo you want to continue (Y/N) :";
    cin >> ch;
}
while(ch=='Y');
}

```

Output:

```

C:\aa\AAAAAAA.EXE
=====
Harshit program
=====
<1>.....for LCM
<2>.....for HCF
<3>.....for exit
Enter Your Choice : 1
Enter N1 and N2 : 2 3
LCM = 6
Do you want to continue (Y/N) :Y
<1>.....for LCM
<2>.....for HCF
<3>.....for exit
Enter Your Choice : 2
Enter the No1 and No 2
12 3
HCF = 3

```

```
C:\aa\AAAAAAAAA.EXE
=====
Harshit program
=====
(1).....for LCM
(2).....for HCF
(3).....for exit
Enter Your Choice :
```

