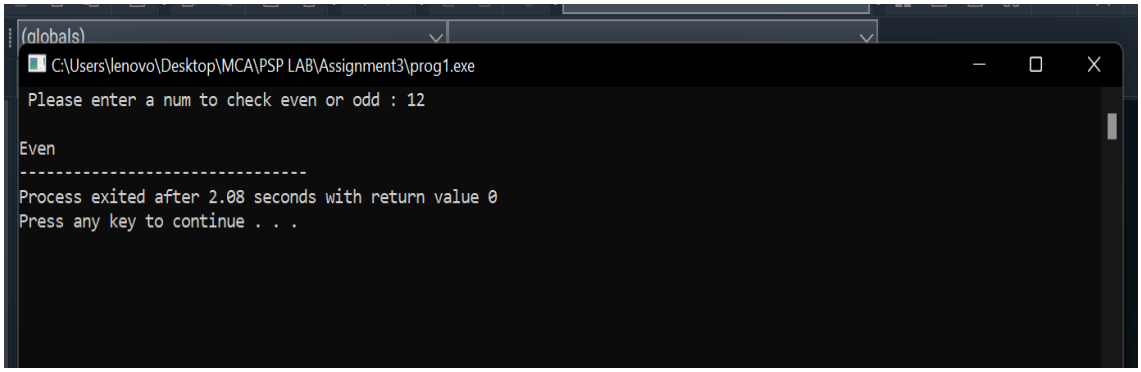
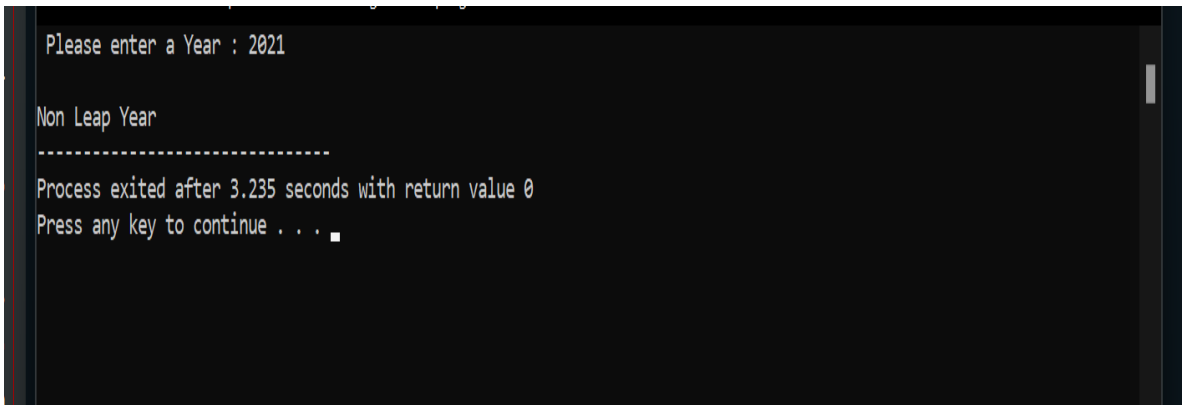
Program 1

```
#include<iostream>

using namespace std;

int main()
{

  int n;
  cout << " Please enter a num to check even or odd : ";
  cin >> n;
  if(n % 2 == 0)
  cout << "\nEven";
  else
  cout << "\nOdd";

  return 0;
}
```



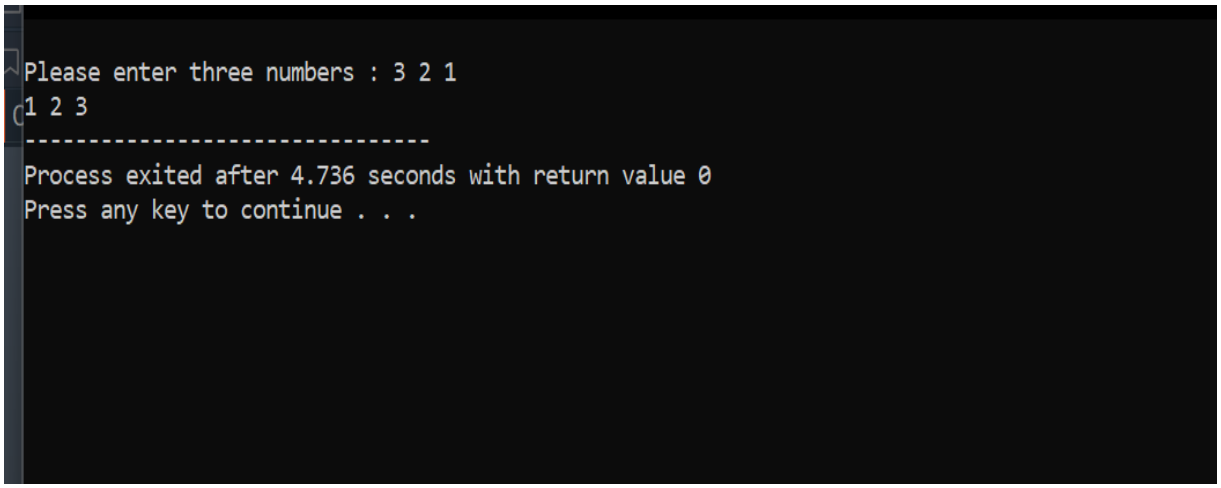
Program 2

```
#include<iostream>

using namespace std;

int main()
{

  int year;

  cout << " Please enter a Year : ";
  cin >> year;
  if(year % 100 == 0)
            if(year % 400 == 0)
     cout << "\nleap year";
   else
     cout << "\nNon leap Year";
  else if(year % 4 == 0)
     cout <<"\nleap year";
  else
     cout << "\nNon Leap Year";

  return 0;
}
```



Program 3

```
#include<iostream>

using namespace std;

int main()
{
  int a,b,c,max,min;

  cout <<"\nPlease enter three numbers : ";
  cin >>a >>b >>c;

  if (a > b)

            if(b > c)

            cout << c << " " << b << " " << a;

            else

                        if(a>c)
           cout << b << " " << c << " " << a;

                        else
           cout << b << " " << a << " " << c;

  else

    if(b < c)

            cout << a << " " << b << " " << c;

            else

                        if(a<c)
           cout << a << " " << c << " " << b;

                        else
           cout << c << " " << a << " " << b;

  return 0;
}
```



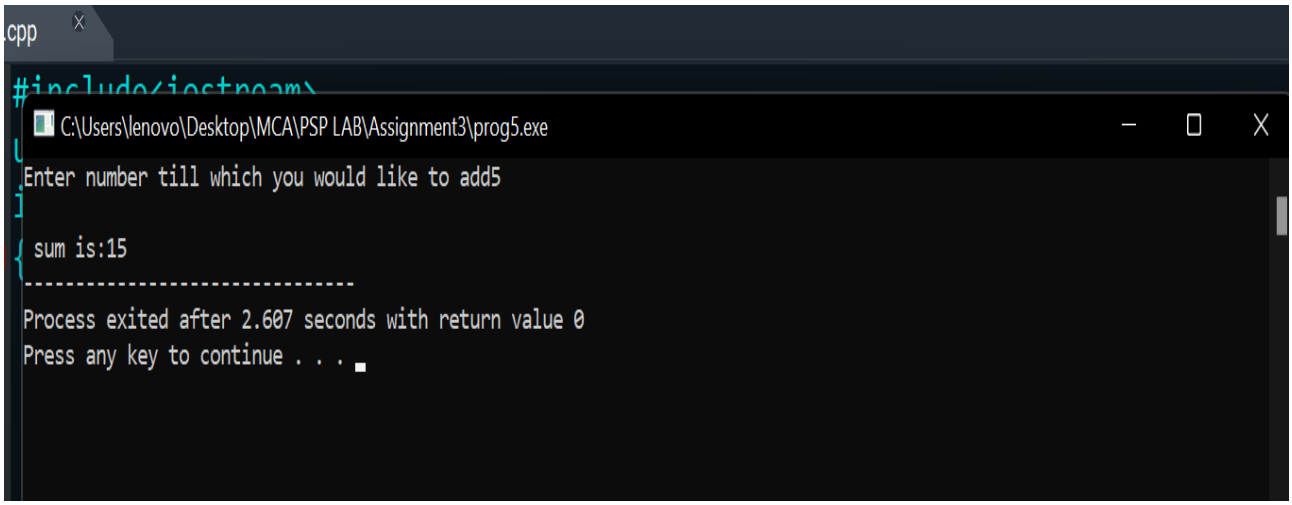
Program 4

```
# include <iostream>
using namespace std;

int main() {

 char op;
 float num1, num2;

 cout << "Enter operator: +, -, *, /: ";
 cin >> op;

 cout << "Enter two operands: ";
 cin >> num1 >> num2;

 switch(op) {

  case '+':
   cout << num1 << " + " << num2 << " = " << num1 + num2;
   break;

  case '-':
   cout << num1 << " - " << num2 << " = " << num1 - num2;
   break;

  case '*':
   cout << num1 << " * " << num2 << " = " << num1 * num2;
   break;
```

```
  case '/':
    cout << num1 << " / " << num2 << " = " << num1 / num2;
    break;

  default:
    // If the operator is other than +, -, * or /, error message is shown
    cout << "Error! operator is not correct";
    break;
 }

 return 0;
}
```

Program 5(i)

```
#include<iostream>
using namespace std;
int main()
{
	int n,sum=0;
	cout<<"Enter number till which you would like to add";
	cin>>n;
	while(n>0)
	{
		sum+=n;
		n--;
	}
	cout<<"\n sum is:"<<sum;
	return 0;
}
```

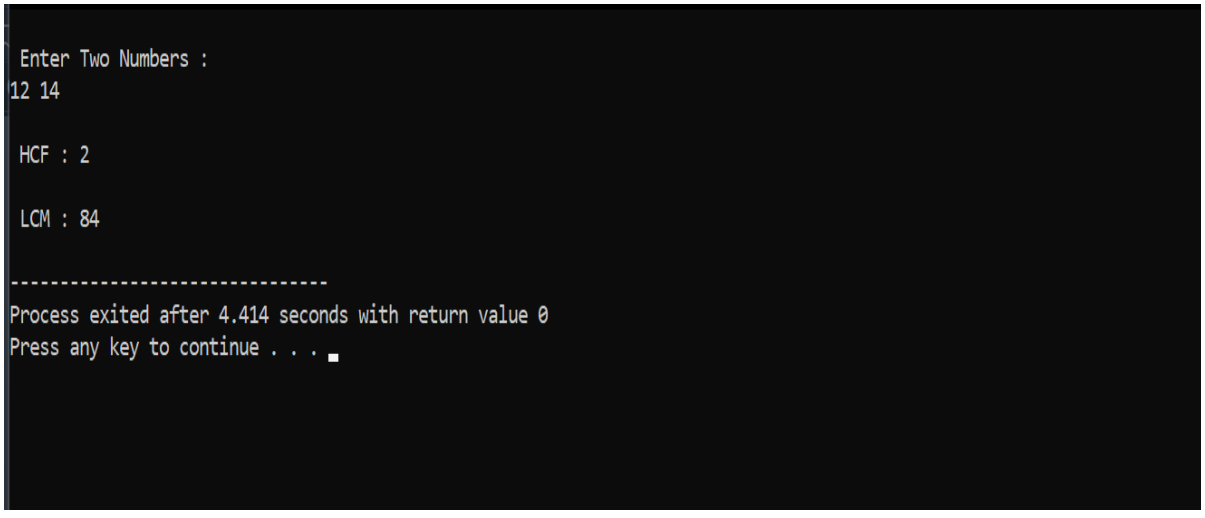


Program 5(ii)

```
#include<iostream>
using namespace std;
int main()
{
	int n,prod=1,i=1,sum=0;
	cout<<"Enter the value of n : ";
	cin>>n;
	while(n>0)
	{
		while(i<=n)
		{
			prod*=i;
			i++;
		}
		sum+=prod;
		n--;
		i=1;
		prod=1;
	}
	cout<<"\n sum is:"<<sum;
	return 0;
}
```

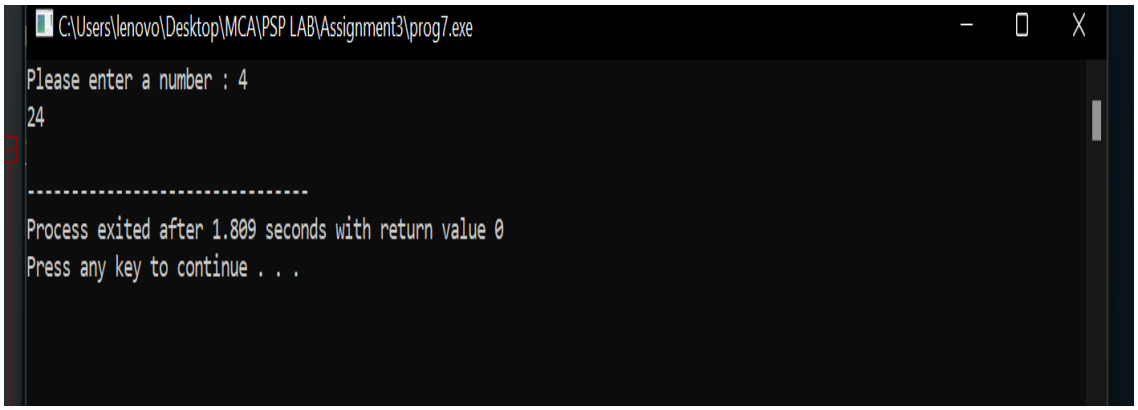
Program 6

```
#include<iostream>
using namespace std;
int main()
{
	int a, b, x, y, temp, hcf, lcm;
	cout<<"\n Enter Two Numbers : \n";
	cin>>x>>y;
	a=x;
	b=y;
	while(b!=0)
	{
		temp=b;
		b=a%b;
		a=temp;
	}
	hcf=a;
	lcm=(x*y)/hcf;
	cout<<"\n HCF : "<<hcf<<"\n";
	cout<<"\n LCM : "<<lcm<<"\n";
	return 0;
}
```



Program 7

```
#include <iostream>
using namespace std;

int main() {
  int n,factorial = 1,i = 1;

  cout << "Please enter a number : ";
  cin>> n;
  do {
    factorial *= i;
    i++;
  } while (i <= n);

  cout << factorial << endl;
}
```



Program 8(i)

```
#include <iostream>
using namespace std;

int main() {
   int n, t1 = 0, t2 = 1, nextTerm = 0;

   cout << "Enter the number of terms: ";
   cin >> n;

   cout << "Fibonacci Series: ";

   for (int i = 1; i <= n; ++i) {
      // Prints the first two terms.
      if(i == 1) {
         cout << t1 << ", ";
         continue;
      }
      if(i == 2) {
         cout << t2 << ", ";
         continue;
      }
      nextTerm = t1 + t2;
      t1 = t2;
      t2 = nextTerm;
      cout << nextTerm << ", ";
   }
   return 0;
}
```

Program 8(ii)

```
#include <iostream>
using namespace std;
int main()
{
int a, b, i, flag;
cout << "\nEnter start value : ";
cin >> a;
cout << "\nEnter end value : " ;
cin >> b;
cout << "\nPrime Numbers between " << a << " and " << b << " : ";
while (a < b)
{
flag = 0;
for(i = 2; i <= a/2; ++i)
{
if(a % i == 0)
{
flag = 1;
break;
}
}
if (flag == 0)
cout << a << " ";
++a;
}
cout << endl;
return 0;
}
```