CS & Programming Lab
Lab Manual 04

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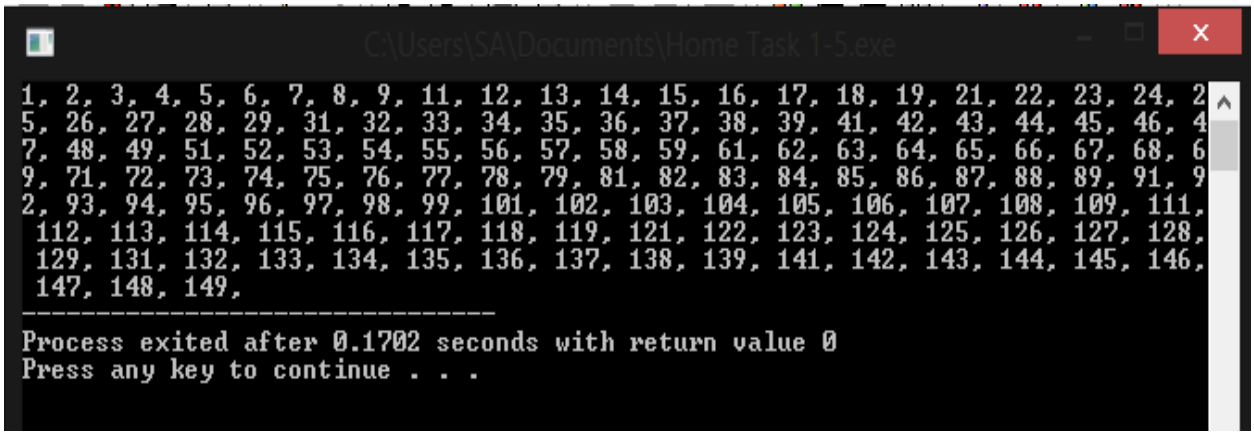
Home Task #1

/*1. Write a program in C++ that prints the numbers from 1 to 150 except the multiples of 10.

Make use of the continue statement.*/

```
#include <iostream>

using namespace std;


int main()

{

	for (int x=1; x<=150; x++){


	if (x % 10 != 0)

	cout<<x<<", ";}

}
```

```cpp
/*1.    Write a program in C++ that prints the numbers from 1 to 150 except the multiples of 10.
Make use of the continue statement.*/


#include <iostream>
using namespace std;

int main()
{
    for (int x=1; x<=150; x++){

    if (x % 10 != 0)
    cout<<x<<", ";}
}
```



Home Task #2

/*2. Write a C++ program to find the sum of digits of a number.

The sum of digits means adding all the digits of any number, for example, we take any number like 358. Its sum of all digits is 3+5+8=16.*/

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

int main()
{
	//Defining variables and taking inputs
	int num, num1, num2, num3;
	cout<<"Enter any three digit number value = ";
	cin>>num;
	cout<<endl;

	//Splitting the number into digits and giving the sum output
	num3 = num%10;
```

num2 = ((num - num3)/10) % 10;

num1 = (num - ((num2 * 10) + num1)) / 100;

cout<<"The sum of the three digits = "<<num1 + num2 + num3<<endl;

}

```cpp
/*2.    Write a C++ program to find the sum of digits of a number.
The sum of digits means adding all the digits of any number, for example, we take any number like 358. Its sum of all digits is 3+5+8=16.*/


#include <iostream>
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int main()
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    //Defining variables and taking inputs
    int num, num1, num2, num3;
    cout<<"Enter any three digit number value = ";
    cin>>num;
    cout<<endl;

    //Splitting the number into digits and giving the sum outpu
    num3 = num%10;
    num2 = ((num - num3)/10) % 10;
    num1 = (num - ((num2 * 10) + num1)) / 100;
    cout<<"The sum of the three digits = "<<num1 + num2 + num3<<endl;
}
```

```
C:\Users\SA\Documents\Home Task 2-5.
Enter any three digit number value = 786

The sum of the three digits = 21

--------------------------------
Process exited after 14.75 seconds with return value 0
Press any key to continue . . .
```

Home Task #3

/*3. Write a program in C++ to check whether a number is prime or not.*/

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

int main()
{
	int num;
	cout<<"Enter the number value = ";
	cin>>num;
	cout<<endl;

	bool check = true;

	if (num<=1)
	{check = false;}
```

```
        for (int x = 2; x <= num/2; x++){

        if ( num % x == 0)
        {check = false;}
        break;}

        if (check)
        cout<<"It is a prime number."<<endl;

        else
        cout<<"It is a composite number."<<endl;
}
```

```cpp
/*3.    Write a program in C++ to check whether a number is prime or not.*/


#include <iostream>
using namespace std;

int main()
{
    int num;
    cout<<"Enter the number value = ";
    cin>>num;
    cout<<endl;

    bool check = true;

    if (num<=1)
    {check = false;}

    for (int x = 2; x <= num/2; x++){

    if ( num % x == 0)
    {check = false;}
    break;}

    if (check)
    cout<<"It is a prime number."<<endl;

    else
    cout<<"It is a composite number."<<endl;
}
```

```
Enter the number value = 37

It is a prime number.

--------------------------------
Process exited after 8.286 seconds with return value 0
Press any key to continue . . .
```

```
Enter the number value = 50

It is a composite number.

--------------------------------
Process exited after 13.19 seconds with return value 0
Press any key to continue . . .
```