



## CS-114 - Fundamental of Programing

### Lab Report # 01

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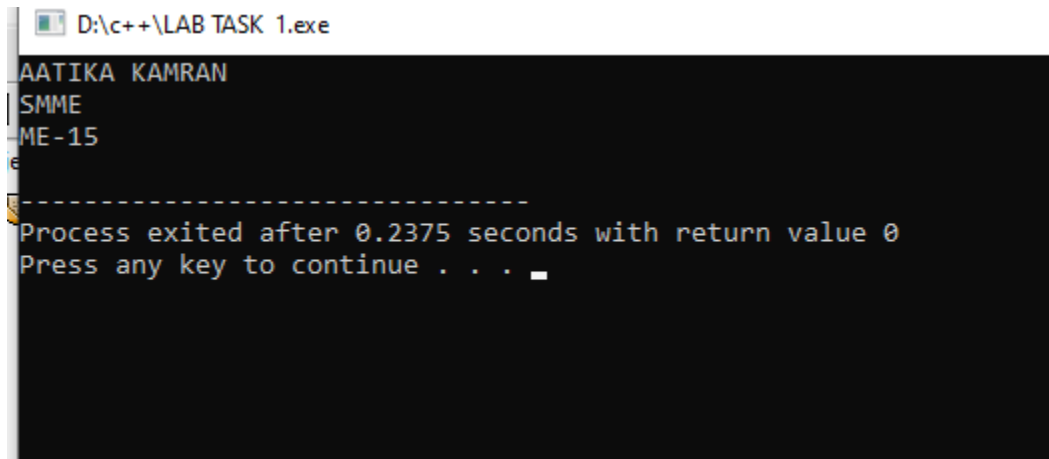
## Task: 01

Basic information

### Code

```
LAB TASK 4.cpp
1  #include <iostream>
2  using namespace std;
3  int main()
4  {
5      cout<<"AATIKA KAMRAN"<<endl;
6      cout<<"SMME"<<endl;
7      cout<<"ME-15"<<endl;
8
9
10 }
```

### Output



```
D:\c++\LAB TASK 1.exe
AATIKA KAMRAN
SMME
ME-15
-----
Process exited after 0.2375 seconds with return value 0
Press any key to continue . . .
```

### Learning outcomes

- Making computer print sentences.

## Task: 02

Sum, difference, product, division and square of two variables

### Code

```
LAB TASK 1.cpp
1  #include <iostream>
2  using namespace std;
3  int main ()
4  {
5      float a,b,res;
6      a = 2;
7      b = 3;
8      cout<<"first no is 2"<<endl;
9      cout<<"second no is 3"<<endl;
10     res = a + b;
11     cout<<" sum = "<<res<<endl;
12     res = a - b;
13     cout<<" difference = "<<res<<endl;
14     res = a*b;
15     cout<<"product = "<<res<<endl;
16     res = a / b ;
17     cout<<" division = "<<res<<endl;
18     res = a*a;
19     cout<<"square = "<<res<<endl;
20
21 }
```

### Output

```
D:\c++\LAB TASK 1.exe
first no is 2
second no is 3
sum = 5
difference = -1
product = 6
division = 0.666667
square = 4

-----
Process exited after 0.396 seconds with return value 0
Press any key to continue . . .
```

## Learning outcomes

- Storing values in variables
- Performing different functions on variables

## Task: 03

Area and circumference of circle

## Code

```
LAB TASK 1.cpp LAB TASK 2.cpp
1  #include <iostream>
2  using namespace std;
3  int main ()
4  {
5      float pi = 3.1415;
6      float a , c , r;
7      cout<<"r of circle is " <<endl;
8      cin>>r;
9      a = pi*r*r;
10     cout<<"area of circle is "<<a<<endl;
11     c = 2*pi*r;
12     cout<<"c of circle is "<<c<<endl;
13     return 0;
14 }
15 }
```

## Output

```
D:\c++\LAB TASK 2.exe
r of circle is
2
area of circle is 12.566
c of circle is 12.566

-----
Process exited after 4.414 seconds with return value 0
Press any key to continue . . .
```

## Learning outcomes

- Using float data types
- Taking input from user

## Task: 04

Fibonacci series

## Code

```
LAB TASK 1.cpp LAB TASK 2.cpp [*] LAB TASK 3.cpp
1  #include <iostream>
2  using namespace std;
3  int main ()
4  {
5      int a , b , x ;
6      a= 0;
7      b= 1;
8      x=a+b;
9      cout<<a<<" "<<b<<" "<<x<<" ";
10     a=b;
11     b=x;
12     x=a+b;
13     cout<<x<<" ";
14     a=b;
15     b=x;
16     x=a+b;
17     cout<<x<<" ";
18     a=b;
19     b=x;
20     x=a+b;
21     cout<<x<<" ";
22     a=b;
23     b=x;
24     x=a+b;
25     cout<<x<<" ";
26     a=b;
27     b=x;
28     x=a+b;
29     cout<<x<<" ";
30
31
32 }
```

## Output

```
D:\c++\LAB TASK 3.exe
0,1,1,2,3,5,8,13,
-----
Process exited after 0.1376 seconds with return value 0
Press any key to continue . . .
```

## **Learning outcomes**

- Write Fibonacci series using 3 variables only.