EUROPEAN UNIVERSITY OF LEFKE
Faculty of Engineering
Department of Computer Engineering

COMP218
OBJECT-ORIENTED PROGRAMMING

LAB WORK NO. 1

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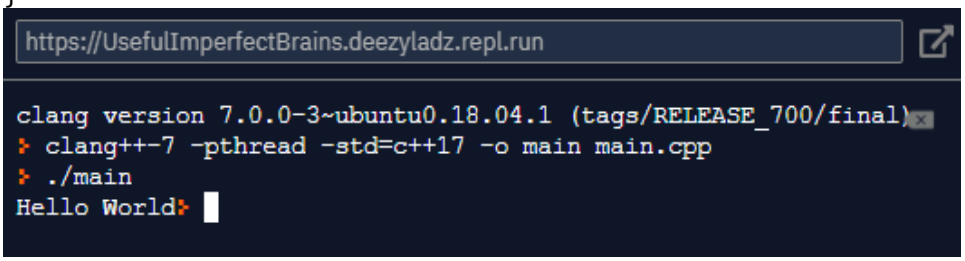
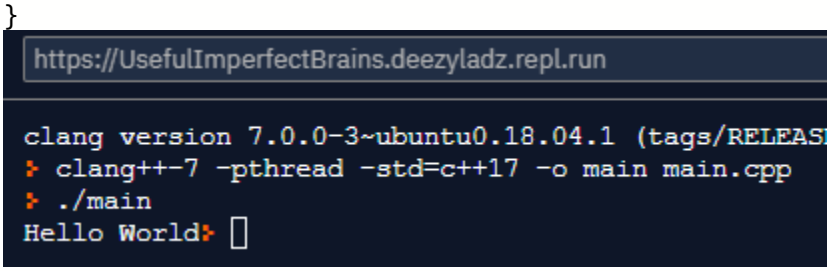
Task - 1(a)

```cpp
#include <iostream>

int main()
{
std::cout << "Hello World"; // prints Hello world
    return 0;
}
```



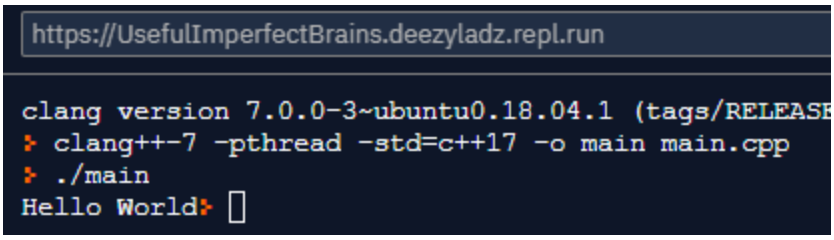
Task - 1(b)

```cpp
#include <iostream>
using std::cout;
int main()
{
cout << "Hello World"; // prints Hello world
    return 0;
}
```



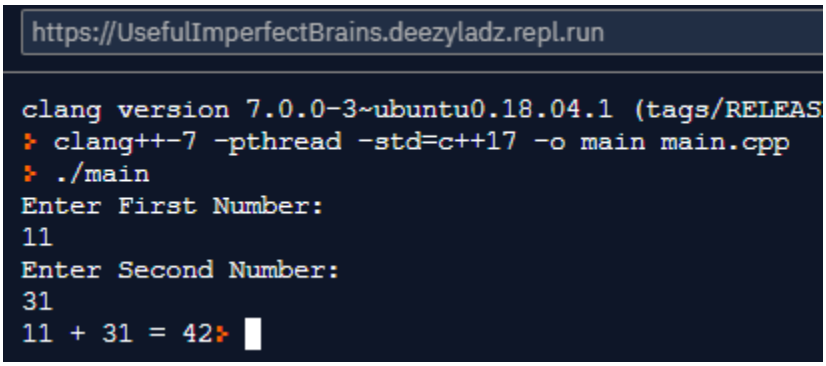
Task - 1(c)

```cpp
#include <iostream>
using namespace std;
int main()
{
cout << "Hello World";  // prints Hello world
    return 0;
}
```



Task – 2

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

int main()
{
    int firstNum, secondNum, sumOfTwoNum;

    cout << "Enter First Number: " << endl;
    cin >> firstNum; //value of first number input from user stored in firstNum

    cout << "Enter Second Number: " << endl;
    cin>> secondNum; //value of second number input from user stored in secondNum


    // sum of two numbers in stored in variable sumOfTwoNumbers
    sumOfTwoNum = firstNum + secondNum;

    // Prints sumOfTwoNum
    cout << firstNum << " + " <<  secondNum << " = " << sumOfTwoNum;
}
```



Task – 3

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

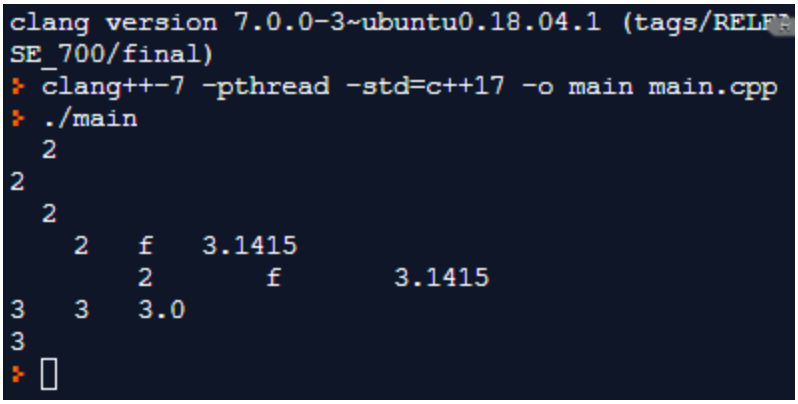
```cpp
int main()
{
    float x = 3.141559f;


    cout << 4 << endl; //prints 4 to the screen
    cout << "  " << 4 << endl; //prints 2 spaces and 4 to the screen
    cout << 4 << "  " << endl;  //prints 4 and 2 spaces to the screen
    cout << x << endl;  //prints float x = 3.141559f;

    cout <<fixed<<setprecision(2)<<x<< endl;//rounds up x to 2decimal places
    cout <<"  "<< fixed << setprecision(2)<< x << endl; //prints to spaces and
rounds up x to 2decimal places

    return 0;
}
```

```
clang version 7.0.0-3~ubuntu0.18.04.1 (tags/RELEA
clang++-7 -pthread -std=c++17 -o main main.cpp
./main
4
  4
4
3.14156
3.14
  3.14
```

Task – 4

```cpp
#include <iostream>
#include <iomanip>
using namespace std;
int main()
{
int a = 2;
char b = 'f';
float c = 3.1415f;
double d = 3;
/*Set field width (setw):
Sets the field width to be used on output operations.

Behaves as if member width were called with n as argument on the stream on which
it is inserted/extracted as a manipulator (it can be inserted/extracted on input
streams or output streams).*/
```

```
cout << setw(3) << a << endl; //prints 3 spaces before a
cout << setw(3) << left << a << endl; // prints a then 3 spaces
cout << setw(3) << right << a << endl; // prints 3 spaces before a
cout << '\t' << a << '\t' << b << '\t' << c << endl;
cout << setw(9) << a << setw(8) << b << setw(13) << c << endl;
cout << d << '\t' << setprecision(1) << d << '\t' << fixed << setprecision(1) <<
d << endl;
cout.unsetf( ios::fixed );
cout << d << endl;
}

/*Set decimal precision (setprecision)
Sets the decimal precision to be used to format floating-point values on output
operations.

Behaves as if member precision were called with n as argument on the stream on
which it is inserted/extracted as a manipulator (it can be inserted/extracted on
input streams or output streams).*/
```



Task – 5

```
#include <iostream>
#include <iomanip>
using namespace std;
/*Static Cast: This is the simplest type of cast which can be used. It is a
compile time cast.It does things like implicit conversions between types (such as
int to float, or pointer to void*), and it can also call explicit conversion
functions (or implicit ones).*/
int main()
{
int a = 3;
char b = 'f';
```

```
cout << a << '\t' << static_cast<char>(a) << endl;
cout << b << '\t' << static_cast<int>(b) << endl;
cout << ( 2/3 ) << '\t' << ( static_cast<float>(2) / 3 ) << endl;
}
```

```
clang version 7.0.0-3~ubuntu0.18.04.1 (tags/RELEASE_700/final)
clang++-7 -pthread -std=c++17 -o main main.cpp
./main
3
f   102
0   0.666667
```