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";
    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri\Des
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
Hello World
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

b.

```cpp
#include <iostream>
using std::cout;

int main() {
    cout << "Hello World";
    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri\Deskt
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
Hello World
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

c.

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

int main() {
    cout << "Hello World";
    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri\Desktop\OBJ
ams\LabWorks\" ; if ($?) { g++ tempCodeRunnerFile.cpp -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
Hello World
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

Task (2)

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

int main() {

    int num1, num2, sum;
    cout << "Enter fisrt value:  ";
    cin >> num1;

    cout << "Enter second value:  ";
    cin >> num2;

    sum = num1 + num2;
    cout << "Addition of " << num1 << " and " << num2 << " is " << sum;
    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
Enter fisrt value:  4
Enter second value:  5
Addition of 4 and 5 is 9
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

Task (3)

```cpp
#include <iostream>
#include <iomanip>

using namespace std;

int main() {
    cout << 4 << endl;
    cout << setw(3) << 4 << endl;
    cout << setw(3) << left << 4 << endl;
    cout << setprecision(7) << 3.141559 << endl;
    cout << setprecision(2) << fixed << 3.141559 << endl;
    cout << setw(6) << setprecision(2) << fixed << 3.141559 << endl;
    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri\Desk
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
4
  4
4
3.141559
3.14
  3.14
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

Task (4)

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

int main() {

    int a = 2; //This line initialises an int value named a and assigns it the value 2
    char b = 'f'; //This line initialises a char variable named b and assigns it the value 'f'
    float c = 3.1415f; //This line initialises a floating point value named c and gives it the value 3.1415f
    double d = 3; //This line initialises a double value named d and gives it the value 3

    cout << setw(3) << a << endl; //This line prints the int value a in three spaces and goes to the next line
    cout << setw(3) << left << a << endl; //This line prints the int value a in three spaces adjusted left and goes to the next line
    cout << setw(3) << right << a << endl; //This line prints the int value a in three spaces adjusted right and goes to the next line
    cout << '\t' << a << '\t' << b << '\t' << c << endl; //This line prints the values a, b and c separated by tab and goes to the next line
    cout << setw(9) << a << setw(8) << b << setw(13) << c << endl; //This line prints variables a in 9 spaces, b in 8 spaces and c in 13 spaces
    cout << d << '\t' << setprecision(1) << d << '\t' << fixed << setprecision(1) << d << endl; //This line prints variable d then tab, prints one significant digit of value d, prints another tab then prints variable d with one significant digit after the point
    cout.unsetf( ios::fixed ); //This line formats the cout object to print a fixed number of values
    cout << d << endl; //This line prints the variable d and goes to the next line

    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
  2
2
  2
        2       f       3.1415
        2       f       3.1415
3       3       3.0
3
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```

Task (5)

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

int main() {

    int a = 3; //This line initialises an int value named a and assigns it the value 3
    char b = 'f'; //This line initialises an char value named b and assigns it the value 'f'
    cout << a << '\t' << static_cast<char>(a) << endl; //This line prints variable a, tab and the value of a again but converted to char data type and goes to the next line
    cout << b << '\t' << static_cast<int>(b) << endl; //This line prints variable b, tab and the value of b again but converted to int data type and goes to the next line
    cout << ( 2/3 ) << '\t' << ( static_cast<float>(2) / 3 ) << endl; //This line prints 2/3, tab and 2/3 again but converted to a floating data type

    return 0;
}
```

```
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks> cd "c:\Users\Baba Riri\Desktop\C
ams\LabWorks\" ; if ($?) { g++ LabWork1_Task1.cpp -o LabWork1_Task1 } ; if ($?) { .\LabWork1_Task1 }
3       ♥
f       102
0       0.666667
PS C:\Users\Baba Riri\Desktop\OBJECT-ORIENTED PROGRAMMING I\C++ Programs\LabWorks>
```