Name: Jawad Ahmed

Roll No: 20P-0165

Secion : 2A

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

int main()
{

    double hours = 35.45;
    double rate = 15.00;
    double tolerance = 0.01000;
    cout << "hours = " << hours << ", rate = " << rate
         << ", pay = " << hours * rate
         << ", tolerance = " << tolerance << endl << endl;

    cout << scientific;
    cout << "Scientific Notation:   " << endl;
    cout << "hours: " << hours << ", rate = " << rate
         << ", pay = " << hours * rate
         << ", tolerance = " << tolerance << endl << endl;

    cout << fixed;
    cout << "hours = " << hours << ", rate = " << rate
         << ", pay = " << hours * rate
         << ", tolerance = " << tolerance << endl << endl;
    return 0;
}
```

TERMINAL

```
cd "/home/namiirr/SEMESTERno2/oop_lab/lab_07/" && g++ 1.cpp -o 1 && "/home/namiirr/SEMEST
oop_lab/lab_07/"1
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERno2/oop_lab/lab_
& g++ 1.cpp -o 1 && "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"1
hours = 35.45, rate = 15, pay = 531.75, tolerance = 0.01

Scientific Notation:
hours: 3.545000e+01, rate = 1.500000e+01, pay = 5.317500e+02, tolerance = 1.000000e-02

hours = 35.450000, rate = 15.000000, pay = 531.750000, tolerance = 0.010000

namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$
```

```cpp
1   #include <iostream>
2   #include <iomanip>
3   using namespace std;
4   const double PI = 3.145445454541;
5   int main()
6   {
7       double radius = 12.67;
8       double height = 12.00;
9       cout << fixed << showpoint;
10      cout << setprecision(2);
11      cout << "Radius = " << radius << endl;
12      cout << "Height = " << height << endl;
13      cout << "Volume = " << PI * radius * radius * height << endl
14
15      cout << setprecision(3);
16      cout << "Radius = " << radius << endl;
17      cout << "Height = " << height << endl;
18      cout << "Volume = " << PI * radius * radius * height << endl
19
20      cout << setprecision(4);
21      cout << "Radius = " << radius << endl;
22      cout << "Height = " << height << endl;
23      cout << "Volume = " << PI * radius * radius * height << endl
24
25      cout << setprecision(5);
26      cout << "Radius = " << radius << endl;
27      cout << "Height = " << height << endl;
28      cout << "Volume = " << PI * radius * radius * height << endl
29
30      return 0;
31  }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE   1: Code

```
& g++ 2.cpp -o 2 && "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"2
Radius = 12.67
Height = 12.00
Volume = 6059.22
Radius = 12.670
Height = 12.000
Volume = 6059.219
Radius = 12.6700
Height = 12.0000
Volume = 6059.2188
Radius = 12.67000
Height = 12.00000
Volume = 6059.21879
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$
```

```cpp
1    #include <iostream>
2    #include <iomanip>
3
4    using namespace std;
5
6    int main()
7    {
8        int x = 19;
9        int a = 345;
10       double y = 76.384;
11       cout << fixed << showpoint;
12       cout << "12345678901234567890" << endl;
13       cout << setw(5) << x << endl;
14       cout << setw(5) << a << setw(5) << "Hi"
15            << setw(5) << x << endl << endl;
16       cout << setprecision(2);
17       cout << setw(6) << a << setw(6) << y
18            << setw(6) << x << endl;
19
20       cout << setw(6) << x << setw(6) << a
21            << setw(6) << y << endl << endl;
22       cout << setw(6) << x << setw(6) << a
23            << setw(6) << y << endl << endl;
24
25       cout << setw(5) << a << x << endl;
26       cout << setw(2) << a << setw(4) << x << endl;
27       return 0;
28
29   }
30
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE   1: Code

namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERno2/oop_lab/lab
& g++ 3.cpp -o 3 && "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"3
12345678901234567890
   19
  345   Hi   19

  345 76.38   19
   19   345 76.38

   19   345 76.38

  34519
345 19

```cpp
4.cpp > main()
1    #include <iostream>
2    #include <iomanip>
3
4    using namespace std;
5
6    int main()
7    {
8        double x = 19.454;
9        int a = 345;
10       double y = 76.384;
11       cout << fixed << showpoint;
12       cout << "12345678901234567890" << endl;
13       cout << setw(5) << x << endl;
14       cout << setw(5) << a << setw(5) << "Hy"
15            << setw(5) << x << endl << endl;
16       cout << setprecision(2);
17       cout << setw(6) << a << setw(6) << y
18            << setw(6) << x << endl;
19
20       cout << setw(6) << x << setw(6) << a
21            << setw(6) << y << endl << endl;
22       cout << setw(6) << x << setw(6) << a
23            << setw(6) << y << endl << endl;
24
25       cout << setw(5) << a << x << endl;
26       cout << setw(2) << a << setw(4) << x << endl;
27       return 0;
28
29   }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE   1: Code

namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERn
& g++ 4.cpp -o 4 && "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"4
12345678901234567890
19.454000
   345   Hy19.454000

   345 76.38 19.45
 19.45   345 76.38

 19.45   345 76.38

   34519.45
34519.45
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$

```cpp
1   #include <iostream>
2   #include <iomanip>
3
4   using namespace std;
5
6   int main()
7   {
8       int x = 15;
9       int y = 7634;
10      cout << "12345678901234567890"  << endl;
11      cout << setw(5) << x << setw(7) << y
12      << setw(8) << "WARM" << endl;
13
14      cout << setfill('*');
15      cout << setw(5) << x << setw(7) << y
16          << y << setw(8) << "Warm" << endl;
17
18      cout << setw(5) << setfill('@') << x
19      << setw(7) << setfill('#') << y
20      << setw(8) << setfill('^') << "Warm" << endl;
21
22      cout << setfill(' ');
23      cout << setw(5) << x << setw(7) << y
24      << setw(8) << "Warm" << endl;
25      return 0;
26  }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE   1: Code

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMES
& g++ 5.cpp -o 5 && "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"5
12345678901234567890
   15   7634    WARM
***15***76347634****Warm
@@@15###7634^^^^Warm
   15   7634    Warm
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ []
```

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

int main()
{
    int farhenheit = 0;
    int celsius = 0;
    cout << "Enter Farhenheit Temperature:  ";
    cin >> farhenheit;
    cout << endl;
    celsius = 5 / 9 * (farhenheit - 32);
    cout << "The Temperature in celcius is = " << celsius << endl;
    return 0;
}
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERno2/oop_lab/lab_07/"
TERno2/oop_lab/lab_07/"6
Enter Farhenheit Temperature: 45

The Temperature in celcius is = 0
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ []

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

int main()
{
    int farhenheit = 0;
    int celsius = 0;
    cout << "Enter the Farhenheit: ";
    cin >> farhenheit;
    cout << endl;
    cout << "5/9" << "  :   " << 5/9 << "  f - 32" << farhenheit - 32 << endl;
    celsius = 5 / 9 * (farhenheit - 32);
    cout << "The Temperature in Celsius:    " << celsius << endl;
    return 0;
}
```

```cpp
8.cpp > main()
1    #include <iostream>
2    using namespace std;
3
4    int main()
5    {
6        int farhenheit = 0;
7        int celsius = 0;
8        cout << "Enter the Farhenheit: ";
9        cin >> farhenheit;
10       cout << endl;
11       cout << "5/9" << 5/9 << "f - 32" << farhenheit - 32 << endl;
12       celsius = 5.0 / 9 * (farhenheit - 32);
13       cout << "The Temperature in Celsius:     " << celsius << endl;
14       return 0;
15   }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERno2/oop_lab/la
TERno2/oop_lab/lab_07/"8
Enter the Farhenheit: 45

5/90f - 3213
The Temperature in Celsius:     7
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$
```

```cpp
9.cpp > main()
1    #include <iostream>
2    #include <fstream>
3
4    using namespace std;
5
6    int main()
7    {
8        fstream my_file;
9        my_file.open("Hello_World.txt", ios::out);
10       if (!my_file)
11               cout << "File Not Created" << endl;
12
13       else{
14           cout << "File Created Successfully" << endl;
15           my_file.close();
16       }
17       return 0;
18   }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEMESTERno
TERno2/oop_lab/lab_07/"9
File Created Successfully
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$
```

```cpp
1    #include <iostream>
2    #include <fstream>
3
4    using namespace std;
5
6    int main()
7    {
8        fstream my_file;
9        my_file.open("Hello_World.txt", ios::in);
10       if (!my_file)
11       {
12           cout << "No Such File" << endl;
13       }
14
15       else{
16           char ch;
17           while (1)
18           {
19               char ch;
20               while(1)
21               {
22                   my_file >> ch;
23                   if (my_file.eof())
24                   {
25                       break;
26                   }
27                   cout << ch;
28               }
29           }
30       }
31       my_file.close();
32       return 0;
33   }
```

PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab_07$ cd "/home/namiirr/SEME
ESTERno2/oop_lab/lab_07/"10
Helloc++
```

Thank you!