Activity No. <2.1>	
< Hands-on Activity 2.1: Data Types and Arithmetic Operations.>	
Course Code: CPE007	**Program:** Computer Engineering
Course Title: Data Types and Arithmetic Operations	**Date Performed : Aug 7 2025**
Section: CPE11S1	**Date Submitted: Aug 7 2025**
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6. Output	

Example: 1
Erorr:

```
1  The following program has an output of:
2
3  The value of seven is: 7.000000
4
5  The value of eight and a half is: 8.500000
6
7  Can you find all possible compilation errors and logic errors? Can you fix them to print
       the same result as the expected output? Before you use your compiler, try to find the
       errors only by manual code analysis.
8
9  #include<iostream>
10
11 using namespace std;
12
13 int main()
14
15 {
16
17 cout<<"The value of seven is: ";
18
19 cout<<"The value of eight and a half is: ", <<8.5;
20
21 return 0;
22
23 }
```

```
ERROR!
/tmp/OTtICBWwRy/main.cpp:1:1: error: 'The' does not name a type
    1 | The following program has an output of:
      | ^~~
ERROR!
In file included from /usr/local/include/c++/14.2.0/iosfwd:42,
                 from /usr/local/include/c++/14.2.0/ios:40,
                 from /usr/local/include/c++/14.2.0/ostream:40,
                 from /usr/local/include/c++/14.2.0/iostream:41,
                 from /tmp/OTtICBWwRy/main.cpp:9:
/usr/local/include/c++/14.2.0/bits/postypes.h:68:11: error: 'ptrdiff_t' does not name a type
   68 |   typedef ptrdiff_t     streamsize; // Signed integral type
      |           ^~~~~~~~
/usr/local/include/c++/14.2.0/bits/postypes.h:41:1: note: 'ptrdiff_t' is defined in header '
    <cstddef>'; this is probably fixable by adding '#include <cstddef>'
   40 | #include <cwchar> // For mbstate_t
  +++ |+#include <cstddef>
   41 |
ERROR!
In file included from /usr/local/include/c++/14.2.0/bits/exception_ptr.h:38,
                 from /usr/local/include/c++/14.2.0/exception:166,
                 from /usr/local/include/c++/14.2.0/ios:41:
/usr/local/include/c++/14.2.0/new:131:26: error: declaration of 'operator new' as non-function
  131 | _GLIBCXX_NODISCARD void* operator new(std::size_t) _GLIBCXX_THROW (std::bad_alloc)
      |                          ^~~~~~~~
ERROR!
```

Result:

main.cpp | Share | Run | Output | Cle

```
1  // Online C++ compiler to run C++ program online
2  #include <iostream>
3  #include <iomanip> // Required for setprecision
4
5  using namespace std;
6
7
8
9  int main()
10 {
11     cout << fixed << setprecision(6); // Ensures 6 decimal places
12
13     cout << "The value of seven is: " << 7.0 << endl;
14     cout << "The value of eight and a half is: " << 8.5 << endl;
15
16
17
18     return 0;
19 }
```

```
The value of seven is: 7.000000
The value of eight and a half is: 8.500000


=== Code Execution Successful ===
```

Example: 2
Error 2:

```cpp
#include <iostream>

using namespace std;

int main()

{

cout<<"The value of seven is: "<< 7 0;

cout<<"The value of eight and a half is: "<<8.5;

return 0;

}
```

```
ERROR!
/tmp/7IQkn81YOt/main.c:1:10: fatal error: iostream: No such file or directory
    1 | #include <iostream>
      |          ^~~~~~~~~
compilation terminated.


=== Code Exited With Errors ===
```

Result:

```cpp
// Online C++ compiler to run C++ program online
#include <iostream>
#include <iomanip> // Required for setprecision

using namespace std;



int main()
{
    cout << fixed << setprecision(6); // Ensures 6 decimal places

    cout << "The value of seven is: " << 7.0 << endl;
    cout << "The value of eight and a half is: " << 8.5 << endl;



    return 0;
}
```

```
The value of seven is: 7.000000
The value of eight and a half is: 8.500000


=== Code Execution Successful ===
```

Example: 3

```cpp
#include <iostream>
int main()

{

float halfValue = 0.6;

float piValue = 3.141 592 65;

cout<<"The value of half is: "<< half Value;

cout<<"The value of Pi is: "<<pi_Value;

return 0;

}

}
```

```
ERROR!
/tmp/TLmqL8rSxV/main.c:1:10: fatal error: iostream: No such file or directory
    1 | #include <iostream>
      |          ^~~~~~~~~
compilation terminated.


=== Code Exited With Errors ===
```

Result:

main.cpp

Share Run

Output Clear

```cpp
// Online C++ compiler to run C++ program online
#include <iostream>
#include <iomanip> // Required for setprecision

using namespace std;



int main()
{
    float halfValue = 0.5;
    float piValue = 3.141593;


    cout << fixed << setprecision(6); // Ensures 6 decimal places


    cout << "The value of half is: " <<halfValue << endl;
    cout << "The value of Pi is: " <<piValue << endl;




    return 0;
}
```

```
The value of half is: 0.500000
The value of Pi is: 3.141593


=== Code Execution Successful ===
```

Example: 4

```cpp
#include <iostream>

int main()

{

int integer1, integer2, sum; /*declaration */

cout<<"Enter first integer: \n" ;  /* prompt */

cin>>integer1 ;           /* read an integer */

cout<<"Enter second integer: \n" ; /* prompt */

cin<<integer2;           /* read an integer */

sum = integer1 + integer2;          /* assignment of sum */

cout<<"Sum is : "<<sum;        /* print sum */
```

```
ERROR!
/tmp/qEbKckvoE8/main.c:1:10: fatal error: iostream: No such file or directory
    1 | #include <iostream>
      |          ^~~~~~~~~
compilation terminated.


=== Code Exited With Errors ===
```

Result:

```cpp
// Online C++ compiler to run C++ program online
#include <iostream>


using namespace std;



int main() {
    int integer1,integer2, sum; //Variable declarations

    std::cout << "Enter first integer: 45 ";
    std::cin >> integer1 ; // first integer

    std::cout << "Enter second integer: 72 ";
    std::cin >> integer2 ; // print second integer

    sum = integer1 + integer2; // Calculate sum

    std::cout << "Sum is : 117 " <<std::endl; /// print sum




    return 0; // Indicate successful program termination
}
```

```
Enter first integer: 45 .
Enter second integer: 72 Sum is : 117


=== Code Execution Successful ===
```

7. Supplementary Activity

Activity 1

Error:

main.c

Share Run Output Clear

```
#include <iostream>

using namespace std;

int main(void)

{

int xValue=5;

int yValue=9;

int result;

int bigResult;

 /*

increment xValue by 3

decrement yValue by xValue

multiply xValue times yValue giving result

increment result by result

```

```
ERROR!
/tmp/wvO6SGmTzn/main.c:1:10: fatal error: iostream: No such file or directory
    1 | #include <iostream>
      |          ^~~~~~~~~
compilation terminated.


=== Code Exited With Errors ===
```

Result:

main.cpp

Share Run Output

```
#include<iostream>

int main(void)

{

    int xValue= 5;
    int yValue=9;
    int result;
    int bigResult;

    xValue += 3;
    yValue -= xValue;
    result = xValue * yValue;
    result += result;
    result -= 1;
    yValue = result % result;
    result += result + xValue;
    bigResult = result * result * result;
    result += xValue * yValue;

    std::cout<<"result: "<<result << std::endl;

    std::cout<<"big result: "<< bigResult;

return 0;

}
```

```
result: 38
big result: 54872

=== Code Execution Successful ===
```

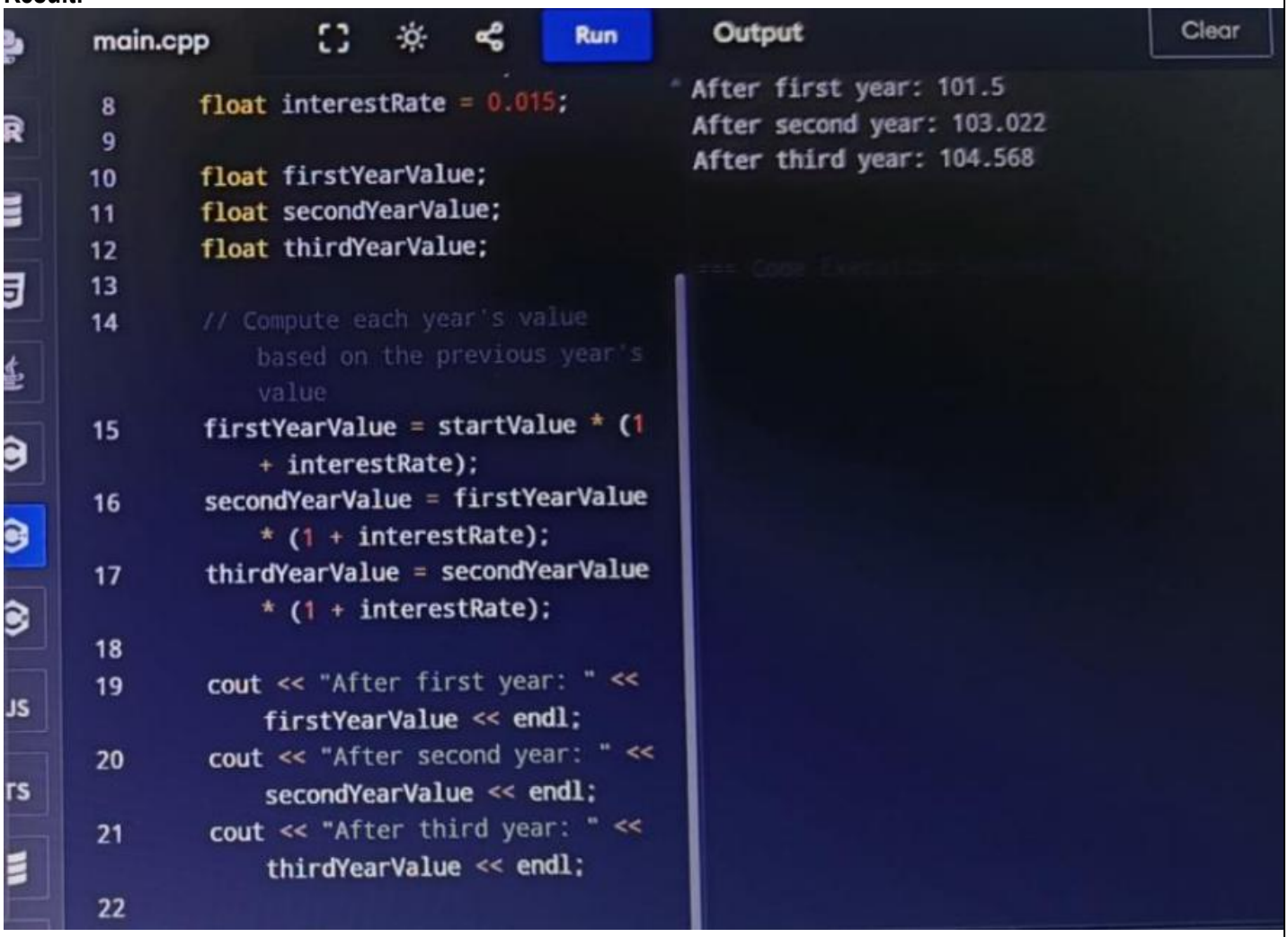
Activity 2

Error:

```cpp
#include <iostream>

using namespace std;

int main()

{

float startValue = 100;

float interestRate = 0.015;

float firstYearValue;

float secondYearValue;

float thirdYearValue;



/* Your code */



cout<<"After first year: "<<firstYearValue;

cout<<"After second year: "<<secondYearValue; cout<<"After third year: "<<thirdYearValue;

return 0;

}
```

```
ERROR!
/tmp/GHyuhq3dNl/main.c:1:10: fatal error: iostream: No such file or directory
    1 | #include <iostream>
      |          ^~~~~~~~~
compilation terminated.


=== Code Exited With Errors ===
```

Result:



8. Conclusion: Programming is kinda fun to understand and little bit hard but that's key to our succed.

9. Assessment Rubric