

## Homework Assignment #2

### Reading Assignment:

Read Chapter 4 in Programming In C++, by D’Orazio  
Work Exercises 4.1 – 4.4 (not to be submitted, but good practice for tests)

### Problem Assignment:

Submit each of the following by the assigned due date.

- 1) Work Application Exercise 3 in Chapter 4.
  - Use the TCC template for the C++ program.
  - Include plenty of comments.
  - The input and output files should be formatted exactly as shown in the text.
  - The input data file has 5 lines. Use the following values for lines 1 and 2. Select your own values for lines 3-5.
    - Line 1: leg1 = 30, leg 2 = 40
    - Line 2: leg1 = 0.5, leg2 = 1.2

The input data file is illustrated below:

|            |            |
|------------|------------|
| <b>30</b>  | <b>40</b>  |
| <b>0.5</b> | <b>1.2</b> |
| <b>etc</b> |            |

- Turn in printouts of the C++ program, the input data file, and the output data file.
- 2) Work Application Exercise 4 in Chapter 4.
    - Use the TCC template for the C++ program.
    - Include plenty of comments.
    - The input and output files should be formatted exactly as shown in the text.
    - Turn in printouts of the C++ program, the input data file, and the output data file.
  3. Determine **by hand** the output of each program listed on the following pages using the data files shown below.

Contents of A:dat1.in:

|              |
|--------------|
| <b>2.0 3</b> |
| <b>4.0 5</b> |
| <b>6.0 7</b> |

Contents of A:dat2.in:

|                |
|----------------|
| <b>9-15-20</b> |
|----------------|

Contents of A:dat3.in:

|                      |
|----------------------|
| <b>acrtjprltoiu</b>  |
| <b>owhfdtrtnfres</b> |
| <b>dnzzpogquse</b>   |

(continued)

| C++ Program   | Output                                   |
|---|--|
| <pre>// HW #2, Problem 3A #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     double x,y,z;     ifstream infile("A:dat1.in");     infile &gt;&gt; x &gt;&gt; y &gt;&gt; z;     cout &lt;&lt; "x = " &lt;&lt; x &lt;&lt; endl &lt;&lt; "y = " &lt;&lt; y &lt;&lt; endl         &lt;&lt; "z = " &lt;&lt; z &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre>          | <pre>x = _____ y = _____ z = _____</pre> |
| <pre>// HW #2, Problem 3B #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     int x,z;     double y;     ifstream infile("A:dat1.in");     infile &gt;&gt; x &gt;&gt; y &gt;&gt; z;     cout &lt;&lt; "x = " &lt;&lt; x &lt;&lt; endl &lt;&lt; "y = " &lt;&lt; y &lt;&lt; endl         &lt;&lt; "z = " &lt;&lt; z &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre> | <pre>x = _____ y = _____ z = _____</pre> |
| <pre>// HW #2, Problem 3C #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     int x,y,z;     ifstream infile("A:dat2.in");     infile &gt;&gt; x &gt;&gt; y &gt;&gt; z;     cout &lt;&lt; "x = " &lt;&lt; x &lt;&lt; endl &lt;&lt; "y = " &lt;&lt; y &lt;&lt; endl         &lt;&lt; "z = " &lt;&lt; z &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre>             | <pre>x = _____ y = _____ z = _____</pre> |

| C++ Program  | Output   |
|--|--|
| <pre>// HW #2, Problem 3D #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     int x,y,z;     char c1, c2;     ifstream infile("A:dat2.in");     infile &gt;&gt; x &gt;&gt; c1 &gt;&gt; y &gt;&gt; c2 &gt;&gt; z;     cout &lt;&lt; "Result: " &lt;&lt; x &lt;&lt; "\\ " &lt;&lt; y &lt;&lt; "\\ " &lt;&lt; z &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre>   | <p>Result: = _____</p>                             |
| <pre>// HW #2, Problem 3E - Code interpreter #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     int x,y,z;     char c1,c2,c3,c4,c5;     ifstream infile("A:dat3.in");     cout &lt;&lt; "Result: ";     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5;     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5;     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5;     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5 &lt;&lt; " ";     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5;     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5;     infile &gt;&gt; c1 &gt;&gt; c2 &gt;&gt; c3 &gt;&gt; c4 &gt;&gt; c5;     cout &lt;&lt; c5 &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre> | <p>Result: _____</p>                               |
| <pre>// HW #2, Problem 3F #include &lt;iostream&gt; #include &lt;fstream&gt; using namespace std; int main ( void ) {     char x,y,z;     ifstream infile("A:dat1.in");     infile &gt;&gt; x &gt;&gt; y &gt;&gt; z;     cout &lt;&lt; "Results:" &lt;&lt; endl;     cout &lt;&lt; "x = " &lt;&lt; x &lt;&lt; endl &lt;&lt; "y = " &lt;&lt; y &lt;&lt; endl         &lt;&lt; "z = " &lt;&lt; z &lt;&lt; endl;     infile.close();     system("pause");     return 0; }</pre>   | <p>x = _____</p> <p>y = _____</p> <p>z = _____</p> |