Philip Pesic

Week 7

October 2 2022

Week 7 Prog 2

Type in the code, run the code, get results

```
//
//  main.cpp
//  Week 7 Prog 2
//
//  Created by Pippo Pesic on 10/2/22.
//


#include "stdafx.h"
#include <iostream>
using namespace std;


// Step 1A – Define a class to be used as a PART.


class myPartClass{
        private:
   double d;
        public:
        myPartClass () { d = 0; }                   // default constructor
        myPartClass ( double inD ) { d = inD; }  // paramaterized constructor
```

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```
        double getD() { return d; }
        void setD( double inD ) {  d = inD; }
};


// Step 1B – Define a WHOLE class – composed of part classes.


class myWholeClass{
private:
        int x;
        myPartClass  Part1;    // Placing a part as private – Simple declaration statement
        // The class is a new TYPE, so you can use it in a declaration statement
        // The declaration statements can be use in the PRIVATE section of another class..


public:
        void setPart1D ( double inD ) { Part1.setD(inD); }
        // need function to access private declaration part1
        double getPart1D () { return Part1.getD(); }
        // need function to access private declaration part1


        int getX() { return x; }
        void setX( int inX ) { x = inX; }
```

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```
        myPartClass Part2;   // Placing a part as public – Simple declaration statement
        // The class is a new TYPE, so you can use it in a declaration statement
        // The declaration statements can be use in the PUBLIC section of another class..

        myWholeClass() {x = 0;}                          // default myWholeClass constructor
        myWholeClass( int inX, double inD1, double inD2 ) // parm myWholeClass constructor
        { x = inX; Part1.setD(inD1); Part2.setD(inD2); }
};

int main() {

//=============================================================================
================
  //Step 2 – Declaration statement for WHOLE class.

  myWholeClass  Whole1;  // Default constructor

  // look at default values
  cout << "Whole 1 - default constuctor - whole X = " << Whole1.getX() << endl;
```

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```
   cout << "Whole 1 - default constuctor - Part 1 d = " <<  Whole1.getPart1D() << endl;

   cout << "Whole 1 - default constuctor - Part 2 d = " <<  Whole1.Part2.getD() << endl;


   //Step 3 – Use it with the dot notation


   Whole1.setX(20);

   cout << "Whole 1 - set whole X = " << Whole1.getX() << endl;


   Whole1.setPart1D( 21);

   // Defined in private section so you have to use the functions.

   cout << "Whole 1 - set Part 1 d = " <<  Whole1.getPart1D() << endl;


   Whole1.Part2.setD(22);

   // Defined in public section so you can use part with dot notation.

   cout << "Whole 1 - set Part 2 d = " <<  Whole1.Part2.getD() << endl << endl;



//=============================================================================

================

   //Step 2 – Declaration statement for WHOLE class.
```

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```
  myWholeClass  Whole2( 91, 92, 93);  // Parmaterized constructor


  // look at default values
  cout << "Whole 2 - Parm constuctor - whole X = " << Whole2.getX() << endl;
  cout << "Whole 2 - Parm constuctor - Part 1 d = " <<  Whole2.getPart1D() << endl;
  cout << "Whole 2 - Parm constuctor -  Part 2 d = " <<  Whole2.Part2.getD() << endl;


  //Step 3 – Use it with the dot notation


  Whole2.setX(51);
  cout << "Whole 2 - set whole X = " << Whole2.getX() << endl;


  Whole2.setPart1D( 52);
  // Defined in private  section so you have to use the functions.
  cout << "Whole 2 - set Part 1 d = " <<  Whole2.getPart1D() << endl;


  Whole2.Part2.setD(53);
  // Defined in public section so you can use part with dot notation.
  cout << "Whole 2 - set Part 2 d = " <<  Whole2.Part2.getD() << endl;
```

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```
//================================================================================
================


        cout << "Philip Pesic 10/2/22" <, endl;
  return 0;
}
```

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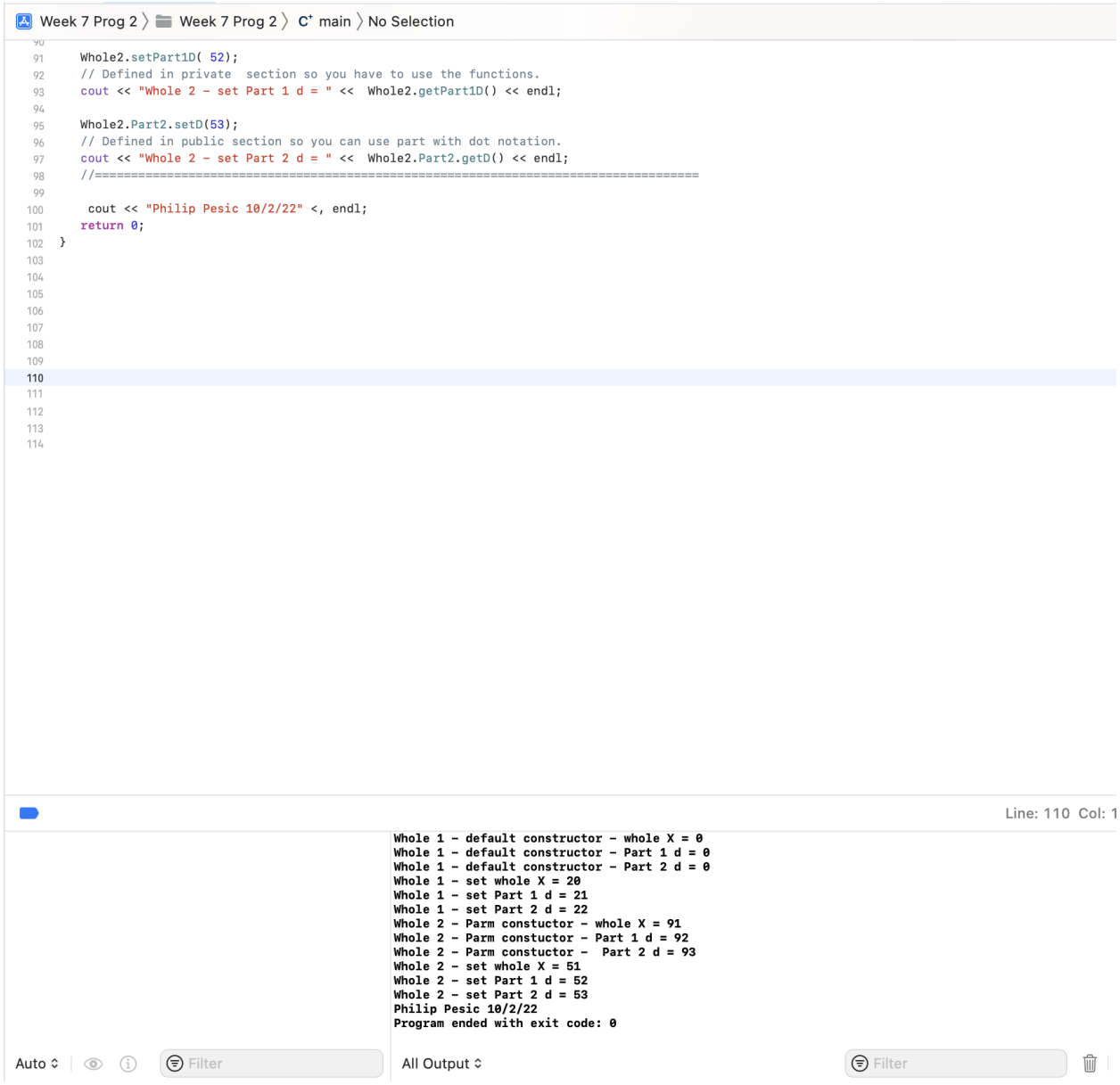

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I learned: how to get and set values in compositional classes

myPartClass
-D: double
+getD() double +setD(inD: double) void

myWholeClass
-x: int
+getPart1D() double +setPart1D(inD: double) void +getX() double +setX(inX: double) void