Philip Pesic

Week 4

September 11 2022

Week 4 Prog 7

Program 7 - Circle

You write ALL the code,

then run it - Produce the correct output. Turn in code and screen print of successful run, for credit

* Write a class for a Circle

* Input only the radius.

* Write functions that Calculate the circles Circumference, Area and Diameter, and print out the value of the radius

* Include error checking for radius, must be greater than zero.

Test all combinations

```
//
//  main.cpp
//  Week 4 Prog 7
//
//  Created by Pippo Pesic on 9/11/22.
//
```

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

class circle {
   int radius;
public:

   int getRadius(void) {return radius;}
      void setRadius(int inRadius) {radius = inRadius;}

   int calcCircumference() {
      int circumference = radius * 3.14159;
      return circumference;
   }

   int calcArea() {
      int area = 3.14159 * (radius^2);
      return area;
   }

   int calcDiameter() {
      int diameter = radius * 2;
      return diameter;
   }
};

int main() {
   circle c1;
   c1.setRadius(5);
   cout << "Radius = " << c1.getRadius() << endl;
   cout << "Circumference = " << c1.calcCircumference() << endl;
   cout << "Area = " << c1.calcArea() << endl;
   cout << "Diameter = " << c1.calcDiameter() << endl;

   circle c2;
   cout << "Radius = " << c2.getRadius() << endl;
   cout << "Circumference = " << c2.calcCircumference() << endl;
   cout << "Area = " << c2.calcArea() << endl;
   cout << "Diameter = " << c2.calcDiameter() << endl;

   cout << "Philip Pesic 9/11/22" << endl;
   return 0;
}
```

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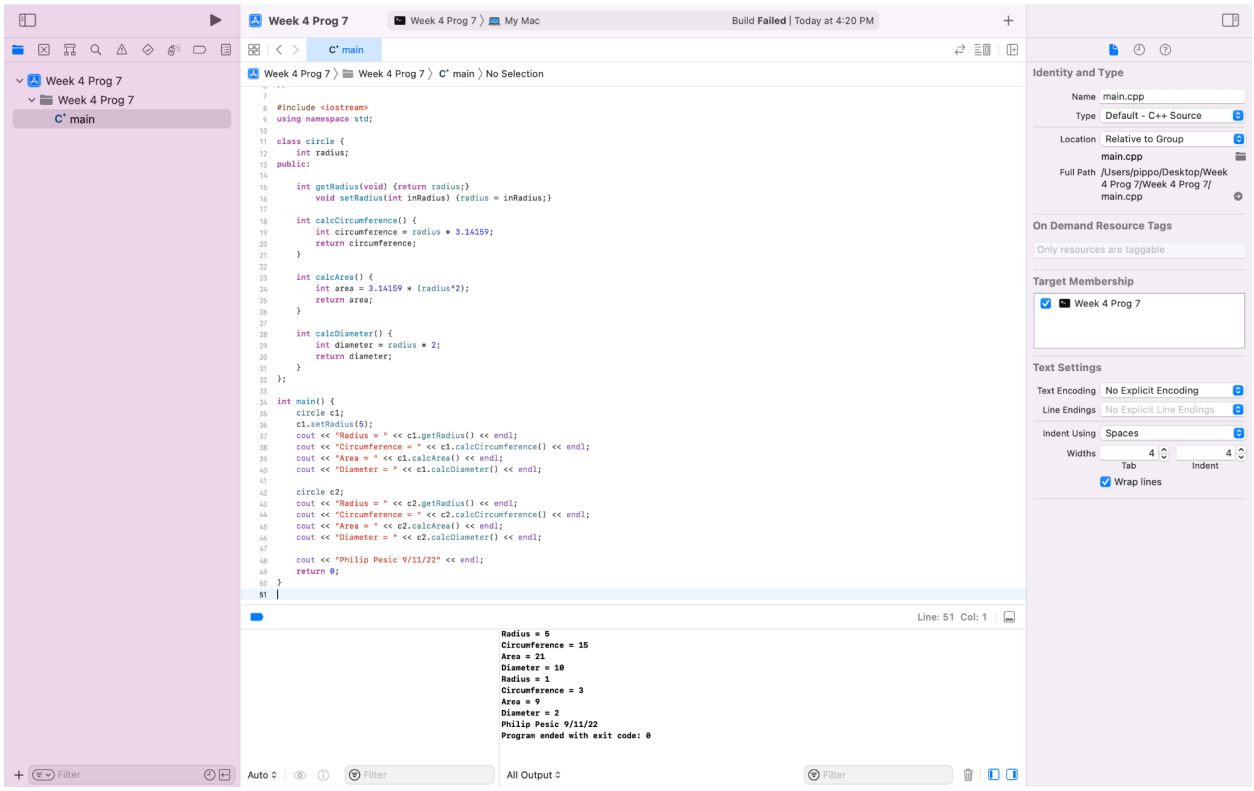

I learned: How to write complicated classes from one property