

SWJTU-Leeds Joint School (Chengdu)

Circle

Application Programming Interface

Yanshan Xie (201199596)

Version 1.0

Fri Nov 1 2019

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Data Structures

Here are the data structures with brief descriptions:

<u>Circle</u> (Class for calculating the area of a circle)3
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Data Structure Documentation

Circle Class Reference

Class for calculating the area of a circle.

```
#include <Circle.h>
```

Public Member Functions

- void [set_radius](#) (float radius)
Sets the radius.
- float [get_area](#) ()
Gets the circle area.

Detailed Description

Class for calculating the area of a circle.

[Circle](#) class

Version:

1.0

Author:

Dr Craig A. Evans

Date:

November 2018

```
#include <iostream>
// include the class header file in main
#include "Circle.h"

int main() {
    std::cout << "Enter circle radius (in metres): ";
    float radius;
    std::cin >> radius;
    // create a circle object and use the public methods
    Circle circle;
    circle.set\_radius(radius);
    float area = circle.get\_area();
    std::cout << "The circle has an area of " << area << " m^2.\n";
    return 0;
}
```

Member Function Documentation

float [Circle::get_area](#) ()

Gets the circle area.

Returns:

the area of the circle in metres squared

void Circle::set_radius (float *radius*)

Sets the radius.

Parameters:

<i>radius</i>	Radius of the circle in metres
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The documentation for this class was generated from the following files:

- Circle.h
- Circle.cpp

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