

## Basic structure of a C++ program

1. Pre-processor directives
2. Global declaration - visible to the entire program  
(including constants, variables, function prototypes, etc.),
3. Main function (the first function program execution looks for)
  - function heading
  - local declaration
  - statements (including function call)
4. Other functions
  - function heading
  - local declaration
  - statements (including function call)

<b>Function:</b> a block of code that performs a specific task.
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- C++ program example:

```
#include <iostream>    // preprocessor to include the iostream header file
using namespace std; // enable access to special symbols defined in the std namespace
```

```
const float PI = 3.14;    // declare a constant of float type
float ComputeArea( float radius);    // declare the value-returning functions
```

```
int main( )                // head of the main function
{                            // start the body of the main function
    // declares a variable and initialize its value
    float radius=5.0; // radius of a circle

    //function call
    cout << "The area of a circle with radius "<< radius << " is "<< ComputeArea(radius) << endl;

    return 0; // value 0 is returned to the operating system
}
```

```
/* description: This function computes the area of a circle
   pre-condition : The radius of the circle is sent in
   post-condition: The area of the circle is computed and returned
*/
```

```
float ComputeArea( float radius )
{
    return PI * radius * radius;
}
```

**A Note about the comments: Single line comment vs. Multi-line comments**