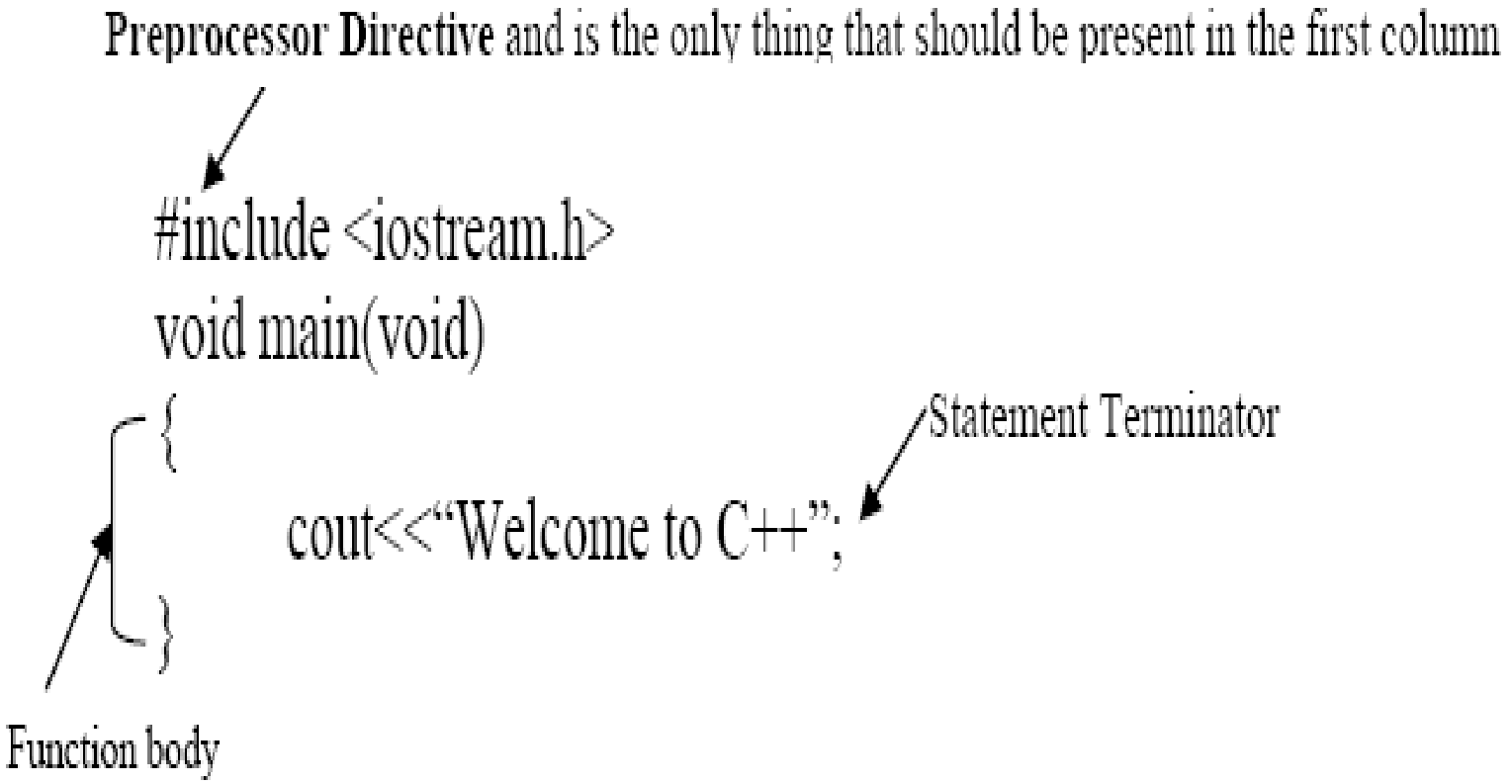
Introduction to C-Language

Lecture 3

First Program in C++



Preprocessor Directive

- # is called Preprocessor Directive.
- The # line tells the compiler to use a file <iostream.h> or <stdio.h> or whatever written in <angle brackets>.
- Files having **.h** extension in C/C++ are called **header files**. They are also sometimes called **include files**.
- The **iostream.h** file is included in the program as it contains the information about the "cout" identifier and the << operator. Normally all the header files of C/C++ are present in the **INCLUDE** directory

Main Function

- A C/C++ program may consist of many functions, classes and other program elements, but on startup, control always goes to **main()** function.
- The first statement executed by the C/C++ compiler will be the one that is the first statement in function

void main(void)

or

void(main)

or

main()

Using Comments in the Program

```
// It is a C++ Program
#include <iostream.h>
void main(void) //main function
{
    /* These lines
    are the
    part of comments and
    will not execute
    */
cout<<"We are studying C++";
}
```

Using Comments in the Program

There are two ways of specifying comments in C++.

- **i) Using //**
- **ii) /* and */**

Defining and using Integer Variables

```
#include <iostream.h>
void main(void)
{
   int a;
   int b;
   a = 10;
   b = a + 5;
   cout<<"A is "<<a <<endl;
   cout<<"B is "<<b <<endl;
}
```

Output
A is 10
B is 15

Defining and using Integer Variables

```
#include <iostream.h>
#include <conio.h>
void main(void)
{ int a,b;
   a = 10; b = a + 5;
   clrscr();
   cout<<"A is "<<a <<" and B is "<<b<<endl;
   cout<<"Press any key to finish";
   getch();
}
```

Output

```
A is 10 and B is 15
Press any key to finish
```

Defining and using Integer Variables

```
#include <iostream.h>
#include <conio.h>
void main(void)
{ clrscr();
   char first=65;
   int second=964;
   float third=5.543;
   cout<<first<<endl<<second<<endl<<third;
   getch();
}
```

Output

A
964
5.543

Using Escape Sequences in the Program

```
#include <iostream.h>
#include <conio.h>
void main(void)
{ clrscr();
cout<<"Hello\nHow\nAre\nYou\n";
cout<<“Hello\n\tHow\n\t\tAre\n\t\t\tYou\n”;
getch();
}
```

Using Escape Sequences in the Program

Output

```
Hello
How
Are
You
Hello
        How
                Are
                        You
```