

Notes of C++

(Notes by:- dPwebdeveloper)

Defining Member Functions

- Member functions are the functions which have their declaration inside the class definition and works on the data members of the class.
- Member function in the class can be defined with different access specifiers either can be private or protected or public depending upon the problem.

The definition of member functions in two different ways:-

- (a) Inside the class definition
- (b) Outside the class definition.

- (a) If the member function is defined inside the class definition it can be defined directly.
- (b) But if its defined outside the class, then we have to use the scope resolution `::` operator along with class name along with function name.

(a) Inside the Class, Definition :-

- Inside member function can be declared in public or private section.
- When a member function is defined inside a class, then it processes all the operations just as in a simple function declaration.
- The class name and the scope resolution operator are not specified with the function name.

(Member function defined inside class ^{are} Inline functions)

Example:- #include <iostream.h>
#include <conio.h>

```
class employee
{
    private :
        int empid;
        float salary;
    public :
        void display () // member function
        {
            empid = 101;
            salary = 20000;
        }
}
```

```
cout << "Employee Id is : " << empid;  
cout << "Salary is : " << salary;  
}
```

```
void main()
```

```
{
```

```
    employee e;           // Object declaration  
    e.display();         // calling to member fun.  
    getch();  
}
```

(b) Outside the class definition

- When the member function of a class is defined outside the class, they are called as Externally defined member function.

- In this, Scope Resolution (::) operator is used to define the member function of the class outside and prototype declaration of function must be declared inside the class.

Class name :: function-name

Syntax:-

```

return_type class_name :: function_name (arg_list)
{
    // Statements;
}

```

Example :-

```

#include <iostream.h>
#include <conio.h>
class employee
{
    private :
        int empid;
        float salary;
    public :
        void display (); // Prototype declaration
}

```

Function def. outside the class

```

void employee::display ()
{
    empid = 101;
    salary = 20000;
    cout << "Employee Id is : " << empid;
    cout << "Employee salary is : " << salary;
}

void main()
{
    employee e;
    e.display(); // calling to member fun
    getch();
}

```