Functions in C++

## Definition

A function is a group of code or code block, which performs a specific task

We have some terminology to refer to functions:

* A function's inputs are known as its arguments
* A function that gives some kind of answer back to the main function.

## Syntax

return\_type function\_name(argumnent)

{

// body Of the Function

}

## Simple Example Program for Function

#include<iostream>

#include<conio.h>

using namespace std;

// Simple Function printmessage()

void printmessage() {

cout << "Im Function In C++";

}

int main() {

//Call Simple Function printmessage()

printmessage();

getch();

return 0;

}

## Sample Output

Im Function In C++

## Definition

A function is like a black box. It takes in input, does something with it, then spits out an answer.

## Syntax

return\_type function\_name(argumnent)

{

// body Of the Function

}

## Simple Example Program Of Function Find Factorial Number

#include<iostream>

#include<conio.h>

using namespace std;

// Simple factorial Function

int factorial(int var) {

int fact = 1;

for (int i = 1; i <= var; i++)

fact = fact \* i;

return fact;

}

int main() {

cout << "5 Factorial Number :" << factorial(5);

getch();

return 0;

}

## Sample Output

5 Factorial Number :120

## Friend Function Definition:

If a function is friend function of a class, that friend function is not the actual member of the class.But which function has rights to access to all private and protected members (variables and functions).



## Simple Program for Friend Function Algorithm/Steps:

* STEP 1: Start the program.
* STEP 2: Declare the class name as Base with data members and member functions.
* STEP 3: The function get() is used to read the 2 inputs from the user.
* STEP 4: Declare the friend function mean(base ob) inside the class.
* STEP 5: Outside the class to define the friend function and do the following.
* STEP 6: Return the mean value (ob.val1+ob.val2)/2 as a float.
* STEP 7: Stop the program.

## Simple Program for Friend Function

#include<iostream.h>

#include<conio.h>

class base {

int val1, val2;

public:

void get() {

cout << "Enter two values:";

cin >> val1>>val2;

}

friend float mean(base ob);

};

float mean(base ob) {

return float(ob.val1 + ob.val2) / 2;

}

void main() {

clrscr();

base obj;

obj.get();

cout << "\n Mean value is : " << mean(obj);

getch();

}

## Sample Output

Enter two values: 10, 20

Mean Value is: 15