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Functions

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Functions

Introduction

- In C++, a function is a code segment that performs a particular task.
- You can reuse it, which means that you can execute it more than once.
- Functions have a name, and they are beneficial in reading, writing, and modifying complex problems. This tutorial will help you learn all about C++ Functions.

What Are Functions?

A function is defined as a group of statements or a block of code that carries out specific tasks. You need to give a particular name to the function and write some logic or group of information inside it. And then you can invoke that function from the main function.

Why Use Functions?

- Functions are used to minimize the repetition of code, as a function allows you to write the code inside the block. And you can call that block whenever you need that code segment, rather than writing the code repeatedly. It also helps in dividing the program into well-organized segments.

Declaration:

A function can be declared by writing its return type, the name of the function, and the arguments inside brackets. It informs the compiler that this particular function is present. In C++, if you want to define the function after the main function, then you have to declare that function first.

```
return_type function_name ( parameter 1, parameter 2, . . . . )
    {

        //function body

    }
```

Declaration:

Example Explained

Syntax

```
void myFunction() {
  // code to be executed
}
```

•myFunction() is the name of the function

•void means that the function does not have a return value.

inside the function (the body), add code that defines what the function should do

Parameters and Arguments

- Information can be passed to functions as a parameter. Parameters act as variables inside the function.
- Parameters are specified after the function name, inside the parentheses. You can add as many parameters as you want, just separate them with a comma

Parameters and Arguments

```
void myFunction(string fname) {
  cout << fname << " \n";
}

int main() {
  myFunction("Ali");
  myFunction("Ahmed");
  myFunction("Ola");
  return 0;
}
```


THANK YOU!