**1.INTRODUCTION**

**C++** is a general-purpose programming language that is widely used for system and application software development. It was designed to provide high-level programming capabilities while still allowing low-level programming.

When you write a C++ program, it typically consists of several key components:

1. **Header Files:** These files contain declarations of functions, classes, and other resources. They are included at the beginning of the program using preprocessor directives such as #include. For example, #include <iostream> includes the standard input-output stream library.
2. **Namespaces:** These are used to organize code into logical groups and to prevent name collisions. The standard library uses the namespace std. You can include this in your program using using namespace std;.
3. **Main Function:** The main function is the entry point of the program. Every C++ program must have a main function, which is where the execution starts.
4. **Statements and Expressions:** Inside the main function (or other functions), you write the actual code that performs the tasks you want your program to accomplish. This includes variables, control structures (like loops and conditionals), and function calls.

2.COMPONENT OF C++ PROGRAM

#include<iostream>

#include<iostream>**:** This line is a preprocessor directive that includes the standard input-output stream library. It is necessary to use the standard input and output functions like cout and cin.

using namespace std;

using namespace std;: This line tells the compiler to use the standard namespace. The standard namespace contains all the definitions of the standard library. Without this line, you would need to prefix standard library objects with std::, like std::cout.

main(){

main(){: This is the main function of the program. Every C++ program must have a main function, which is the starting point of execution.

return 0;

}

return 0;: This statement is used to return a value from the main function. In this case, 0 typically indicates that the program has executed successfully. The closing curly brace } marks the end of the main function.

3.IMPORTANCE

#include <iostream> :is a header file library that lets us work with input and output objects, such as cout . Header files add functionality to C++ programs.

using namespace std: means that we can use names for objects and variables from the standard library.

int main():This is called a function. Any code inside its curly brackets {} will be executed.

cout : is an object used together with the insertion operator (<<) to output/print text or content of variable.

return 0: ends the main function.

Each of these components plays an important role in ensuring that your program is correctly set up to perform input and output operations, adhere to standard library conventions, and define the starting point and successful completion of the program.