STRUCTURE OF A C PROGRAM

The basic structure of a C program is divided into 6 parts which makes it easy to read, modify, document, and understand in a particular format.

C program must follow the below-mentioned outline in order to successfully compile and execute.

Sections of the C Program

There are 6 basic sections responsible for the proper execution of a program. Sections are mentioned below:

Documentation
Preprocessor Section
Definition
Global Declaration
Main() Function
Sub Programs

1. Documentation

This section consists of the description of the program, the name of the program, and the creation date and time of the program. It is specified at the start of the program in the form of comments. Documentation can be represented as:

// description, name of the program, programmer name, date, time etc.

```
/*
   description, name of the program, programmer
name, date, time etc.
*/
```

2. Preprocessor Section

All the header files of the program will be declared in the preprocessor section of the program. Header files help us to access other's improved code into our code. A copy of these multiple files is inserted into our program before the process of compilation.

Example:

#include<stdio.h>
#include<math.h>

The link and definition sections are called as preprocessor directives. It gives instructions to the compiler to link function from the system library. For example, the definition section defines all the symbolic constants.

#include<stdio.h>

#define PI 3.1415

4. Global Declaration

The global declaration section contains global variables, function declaration, and static variables. Variables and functions which are declared in this scope can be used anywhere in the program.

Example:

int num = 18;

5. Main() Function

Every C program must have a main function. The main()
function of the program is written in this section. Operations
like declaration and execution are performed inside the curly
braces of the main program. The return type of the main()
function can be int as well as void too. void() main tells the
compiler that the program will not return any value. The int
main() tells the compiler that the program will return an
integer value.

Example:
void main() or int main()

6. Sub Programs

User-defined functions are called in this section of the program. The control of the program is shifted to the called function whenever they are called from the main or outside the main() function. These are specified as per the requirements of the programmer.

Example:
```
int sum(int x, int y)
{
    return x+y;
}
```