## STRUCTURE OF C PROGRAM:

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

1 .Documentation

2. Preprocessor Section

3. Definition

4. Global Declaration

5. Main() Function

6. Sub Programs

### 1. Documentation Section

- **Purpose**: This section is used for adding comments that describe the program, its purpose, author information, version, etc.
- **Example**

  **/***

  *** Program to demonstrate the basic structure of a C program**

  *** Author: John Doe**

  *** Date: 01/01/2024**

  ***/**

### 2. Preprocessor Section

- **Purpose**: This section includes preprocessor directives that tell the compiler to include specific libraries or perform macro substitutions before compilation.
- **Example**:

  #include <stdio.h>  // Standard input-output library
  #include <stdlib.h> // Standard library functions

### 3. Definition Section

- **Purpose**: This section is used for defining constants or macros. These definitions help in making code more readable and maintainable.
- **Example**:

  ```
  #define PI 3.14159  // Defining a constant for the value of Pi

  #define MAX_SIZE 100
  ```

### 4. Global Declaration Section

- **Purpose**: Variables and function prototypes declared here are accessible throughout the program. This section helps in defining global variables and function prototypes.
- **Example**

  ```
  int globalVar = 5;  // Global variable declaration
  ```

### 5. main() Function

- **Purpose**: This is the entry point of the program where execution starts. It usually contains the primary logic of the program.
- **Example**:

  ```
  int main() {
      printf("Hello, World!\n");
      // Other program logic goes here
      return 0;  // Indicates successful execution
  }
  ```

### 6. Sub Programs (Functions)

- **Purpose**: These are user-defined functions that are called from main() or other functions. They help in modularizing the code and promoting reusability.
- **Example**

  ```
  void someFunction() {

      printf("This is a sub-program.\n");

  }
  ```

## EXAMPLE PROGRAM

```
/*
 * Simple C Program Structure Example
 * Author: Jane Smith
 * Date: 01/01/2024
 */

#include <stdio.h> // Preprocessor directive

#define PI 3.14159 // Definition section

// Global variable declaration
int globalCount = 0;

// Function prototype
void displayMessage();

int main() {
    printf("Welcome to the C program structure demo!\n");
    displayMessage(); // Calling the sub-program
    return 0;
}
```

```
// Sub-program definition
void displayMessage() {
    printf("This message is from a user-defined function.\n");
}
```