



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35.**

**An Autonomous Institution**

**COURSE NAME : 23ITT101 PROGRAMMING IN C AND DATA STRUCTURES**

**I YEAR/ II SEMESTER**

**UNIT-I INTRODUCTION TO C**

**Structure of C Program**

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# Basic Structure of C Program

The components of the basic structure of a C program consists of 7 parts

1. Document section
2. Preprocessor/link Section
3. Definition section
4. Global declaration section
5. Function declaration section
6. Main function
7. User-defined function section



# Basic Structure of C Program



## 1. Documentation Section

Can give **comments to make the program more interactive**. The compiler won't compile this and hence this portion would not be displayed on the output screen.

## 2. Preprocessor Directives Section

Involves the use of **header files** that are to included necessarily in the program.

## 3. Definition Section

Involves the **variable definition and declaration in C**.

## 4. Global Declaration Section

Used to define the **global variables** to be used in the programs, that means you can use these variables throughout the program.



# Basic Structure of C Program



## 5. Function Prototype Declaration Section

Gives the information about a function that includes, **the data type or the return type, the parameters passed or the arguments.**

## 6. Main function

Major section from where the execution of the program begins. The main section involves the **declaration and executable section.**

## 7. User-defined function section

When you want to define your **function that fulfills a particular requirement,** you can define them in this section.



# Anatomy of a C Program



- **# include <stdio.h>** – is a preprocessor directive, includes all standard input-output files before compiling.
- **int main()** – from here the execution of the program starts.
- **{ (Opening bracket)** – beginning of any function in the program.
- **/\* some comments \*/** – Whatever is inside **/\*————\*/** are not compiled and executed; they are only written for user understanding. These are known as multiline comments. Single line comments are represented with the help of 2 forward slashes **“//————”**.
- **printf(“Hello World”)** – is included in the C stdio.h library, which helps to display the message on the output screen.
- **getch()** – helps to hold the screen.
- **return 0** – terminates the C program and returns a null value, that is, 0.
- **} (Closing brackets)** - end of the function.



# Example of C Program Structure



- The “Hello World!” example is the most popular and basic program that will help you get started with programming.
- This program helps you display the output “Hello World” on the output screen.

```
File Edit View Search Terminal Help
GNU nano 2.9.3
#include <stdio.h>
int main()
{
// Our first basic program in C
printf("Hello World!\n\n");
return 0;
}
```



# Basic Structure of C Program

```
// Name of Program
```

Documentation section

```
#include<stdio.h>
```

```
#include<conio.h>
```

Preprocessor Directives

```
#define max 100
```

```
void add();
```

```
int x=100;
```

Definition section

Global declaration section

```
int main()
```

```
{ int a=100;
```

```
printf("Hello Main");
```

```
return 0;
```

```
}
```

main () Function section / Entry Point

Variable declaration

Body of Main function

```
void add(){
```

```
printf("Hello add");
```

```
}
```

Function Definition



**Thank You!**