C Programming Language

Basics



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Basics of C Programming?

C is a **structured** programming language. So every instruction in a c program must follow the predefined structure (Syntax).

C is also known as **Function Oriented** Programming Language. So every executable statement must written inside a function.

/* Documentation */ **Pre-Processing Statements Global Declarations** Main method Used defined methods implementation

Documentation

- It is used to provide brief information of the program.
- This part is written using **comments**.
- Generally the documentation part does not executed by compiler & it is optional part.

/* Documentation */
Pre-Processing Statements
Global Declarations

Main method

Pre-Processing Statements

- It is used to link the header files, define the constants, etc...
- Every preprocessor statement starts with hash (#) symbol.
- Every Preprocessor statement tells to the compiler to perform required pre-processing before the actual compilation.

/* Documentation */
Pre-Processing Statements
Global Declarations

Main method

Pre-Processing Statements

```
Examples
   #include
    #define
    #undef
    #ifdef
    #ifndef
   #if
    #else
    #elif
   #endif
   #error
   #pragma
```

```
/* Documentation */
Pre-Processing Statements
Global Declarations

Main method

Used defined methods
```

implementation

Global Declaration

- This part is used to declare the variables which are common for multiple methods.
- In this section, we also declare enumeration, structure, unions, userdefined methods etc...
- It is also optional part. According to our requirement we write this section.

/* Documentation */
Pre-Processing Statements
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Main method

Main method

- main method is the compulsory part for any c program.
- C language is a function oriented programming language, so every c program must have at least one function and that must be main.
- Main is a userdefined method which specifies the starting point of the program execution.
- Every c program execution starts with main method and ends with main method itself.

/* Documentation */
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Main method

Used defined methods

implementation

Userdefined Methods

- In this section of the program we write the actual code for the userdefined methods.
- Userdefined methods can be implemented either before or after the method.
- If it is implemented after the main then it must be declared either inside or before the main method.
- If it is implemented before the main then the declaration can be ignored.

/* Documentation */
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Main method

General Structure of a C Program - Example

```
/* Program to print a message Hello World! */
#include<stdio.h>
void main()
   printf("Hello World!!!!");
```

Rules for Writing C programs

- Every c program must contain exact one main method
- Every executable instruction must end with semicolon (;)
- All the system defined words (Keywords) must be used in lowercase letters
- Every open brace ({) must have the respective closing brace (})
- The variables must be declared in the declaration section before they are used

Thank You!

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