



Fundamental of Programming / PROGRAMMING FOR PROBLEM SOLVING



CHAPTER-1

INTRODUCTION TO C LANGUAGE

HISTORY OF C LANGUAGE



- C is developed by Dennis Ritchie in the year 1972 at Bell Laboratories(USA).
- It is a General- purpose, Structured, Machine Independent, Simple and Flexible programming language.
- Initially, C language was developed to be used in UNIX operating system. It inherits many features of previous languages such as B and BCPL.





PROGRAM DEVELOPMENT STEPS

- The program development steps or phases that we follow a sequence of steps to develop a program in any programming language.
- Generally, the program development steps contains 6 phases, they are as follows

1. Requirements
2. Analysis
3. Design
4. Coding
5. Testing
6. Maintenance





FEATURES OF C LANGUAGE

- Simple
- Machine Independent or Portable
- Mid-level programming language
- structured programming language
- Rich Library
- Memory Management
- Fast Speed
- Pointers
- Recursion
- Extensible



STRUCTURE OF C PROGRAM

Documentation – comments about program

Link- instructions to compiler

Definition- defines all symbolic constants

Global declaration- variable that is frequently used

Main()-

Declaration: all variables

Execution: programming

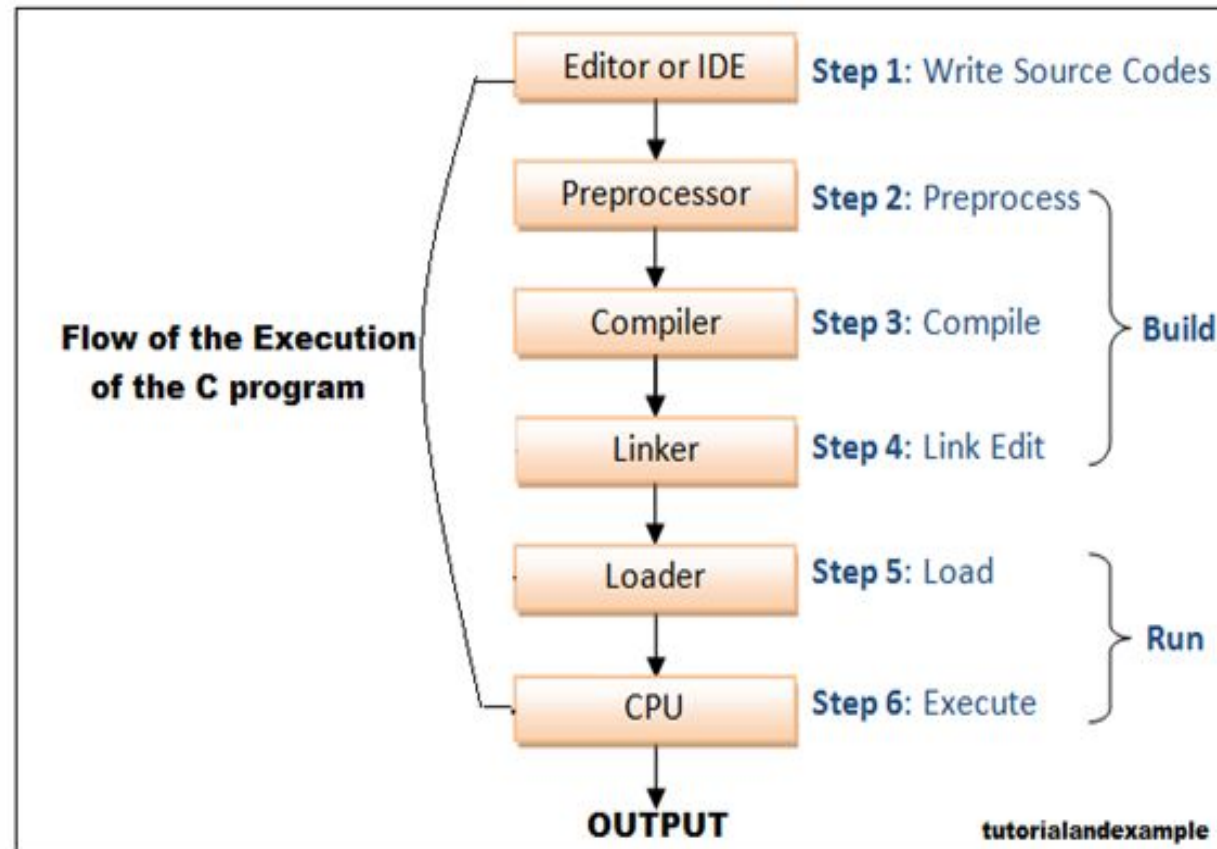
Subprogram- user defined functions

Documentation section		
Link section		
Definition section		
Global declaration section		
main () Function section		
{		
<table> <tr> <td>Declaration part</td></tr> <tr> <td>Executable part</td></tr> </table>	Declaration part	Executable part
Declaration part		
Executable part		
}		
Subprogram section		
Function 1		
Function 2		
.....		
.....		
Function n		

(User defined functions)



EXECUTION OF C PROGRAM





EXAMPLE

```
#include <stdio.h>
#include <conio.h>
int main()
{
    printf("Hello,World"); // Displaying as Output
    getch();
    return 0;
}
```



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