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V.V IMP.

Structure of C programming.

```
/* Documentation Section */
    Link Section
    Defination section
    Global declaration
    Main( ) function section
    {
     Declaration part
     Execution part
     }
     Sub-program section
     {
       function 1
       function 2
       function 3
     }
```

fig: Structure of C program

1. C is a group of building blocks called function which is sub-routine that may include one or more statements designed to perform at specific task.

2) Documentation Section:

It consist of set of comment lines giving the name of program, author and other details to be used by the programmers. The compiler ignores any comment so they dont add to the file size during time of execution.

2) Link Section:
It provides instructions to compiler to link function system library.

3) Definition section:
It defines all symbolic constants.

4) Global declaration section:-
It declares variables to make them global.

5) Main() function section:-
→ It is the most important section of the program and one program contains only one main function.

→ Main function starts with opening brace "{" and end with closing brace "}".

→ It consists declaration and execution section. Declaration and execution section declares all the variables used in executable part. The process to be performed is present in execution part. There must be at least one statement in executable part. Each statement ends with semi column except for function definations, control statements and loops.

6) Sub-program section:-
It contains all the user defined functions that are called in main function.

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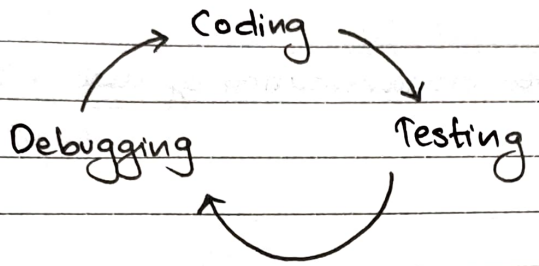
System Debug:

If errors occurs while testing a system programmer needs to make the connection of the system. Coding, testing and debuging is a continuous process, so it is a cycle.



Testing :-

Programmer needs to test the new system using ~~variable~~ various dummy data to find out wheather if meets up the requirement or not. If errors occured during testing we need to debug those codes. There are various type of testing, such as: Unit testing, Module testing and Integrate testing.

Documentation :

1) It is the instruction for using the build program.
2) The most common form of documentation is mannual document, that comes alone with the devices we purchase.
3) It is an important part in software engineering process.

It includes:-

(a) Architecture / Designing:

Overview of software and includes relations to the environment and construction principle to be used indesign of software component.

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(b) Requirements:-
Statements that identify attributes, capabilities, characteristics or quality of the system. This is the foundation for what should be implemented.

(c) Technical :-
It's includes documentation of codes, algorithm & API.

(d) Endusers:-
It should includes mannual for the end users, system administrator and support staff.

(e) Marketing:-
It includes how to market the product and analysis of product or market demand.

Keywords:

Keywords are the reserved words in the program. That means they are defined in the C-compiler. They have special significance in C programs. They maynot be used for any other purposes. For example, keywords cannot be used to give the variable's names, function's name etc There are altogether 32 keywords in C-programming which are shown in the following table:

auto	double	if	static
break	else	int	struct
case	enum	long	switch
char	extern	near	type def
const	float	register	union
continue	far	return	unsigned
default	for	short	void
do	goto	signed	while

- Note:

1) A keyword name cannot be used as a variable name.
2) Keywords must be written in lower case.
3) It specifies the type/kind of entity.

Identifiers:

In C-programming, name given to variables, constants, functions arrays and various other user defined items are known as identifiers. It can also be defined as a set of combinations of one or more letters or digits used to define constants, variables, functions etc. Identifiers are defined by user and user should try to give meaningful name while using identifiers to increase the readability of program.

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* Rule for Identifier:

a) An Identifier can only have alphanumeric characters (a-z, A-z, 0-9) and underscore (_)

b) The first character of an identifier can only contain alphabets (a-z, A-z) or underscore (_)

c) Identifiers are also case sensitive in C. For example: name and Name are two different identifiers in C

d) Keywords are not allowed to be used as Identifiers.

e) No special characters, such as a semicolon, period, whitespace, slash, or comma are permitted to be used in or as an identifier.