

ASSIGNMENT 1

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1. Why do computers understand only binary language?

Ans:

It's not the computers who use binary system, it's us!

Computers understand only 2 states- either ON or OFF. This is because the circuitry of PCs are made up of transistors and diodes. Either the transistor gets Voltage and switches to ON position or else it doesn't receive Voltage and remains switched OFF. But we convert/assume ON as 1 and OFF as 0. Reason being, it is cumbersome to write ON and OFF every time.

2. What is the full form of IDE?

Ans:

IDE stands for Integrated Development Environment.

3. What is the difference between a text editor and a code editor?

Ans:

Text editor is used to edit text files as the name suggest and there is nothing great about it (as per my knowledge). Example of a text editor is notepad.

Code editor on the other hand is specifically meant to edit code. They provide you with various features like auto indent, bracket matching, different colors for variables, key words, comments, pre-processor directives, strings, etc.

Code editors are mostly integrated with the IDE (Integrated Development Environment). There are few standalone code editors like Notepad++.

4. What are the steps to develop software using the C language?

Ans.

The development of a "C" program involves the use of the following programs in the order of their usage
Editor

This program is used for Writing the Source Code, the first thing that any programmer writing a program in any language would be doing.

Debugger

This program helps us identify syntax errors in the source code.

Pre Processor

There are certain special instructions within the source code identified by the # symbol that are carried on by a special program called a preprocessor.

Compiler

The process of converting the C source code to machine code and is done by a program called Compiler.

Linker

The machine code relating to the source code you have written is combined with some other machine code to derive the complete program in an executable file. This is done by a program called the linker.

5. Explore by your own

a. What is the latest version of C Language?

Ans: The latest version of C language is C17

b. Who developed C Language?

Ans: C language was developed by Dennis Ritchie.

c. What is the difference between System and Application Software?

Ans: System software acts as the interface between the application software and hardware of the computer system. Where as, application software focusses on the software part of the system.

d. How to convert a number from a decimal number system to a binary number system?

Ans: Divide the number by 2 and find its remainder, then repeat the process by taking the quotient as the dividend and finding the remainder and so on.