**ASSIGNMENT 1**

1. Why do computers understand only binary language?

**Ans.** The computers understand only 0(zero) and 1(one) i.e., binary number instead of human friendly language. It is because of:

* Despite major advancements in the computer technology, the computer uses program instructions in binary to perform any task at the hardware level.
* It is reliable way of storing the data
* Due to Computer system architecture.
* 1 means ON and 0 is OFF.

1. What is the full form of IDE?

**Ans.** IDE stands for “**integrated development environment”.** It is an open-source software environment that required to build and test basis developer tools.

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

**Ans.** **Text Editor**

A text editor is simply a computer program and a tool used for text editing. It is one of the most important tools of developers that enable them to type and edit text, mostly programming language files.  
 **Ex. WordPad** and **Notepad** are the most common text editors.  
  
**Code Editor**

Code editor is one of the most important tools for programmers specifically designed to edit the source code of computer programs. It is basically a text editor but it is also designed to help you write code. It helps you colour your code and provides you more advanced tools to make coding easier for you.

**Ex.** **Code Blocks** and **Vs Code** are the most common code editors.

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

**Ans.** Step-I**:** Install an Integrated Development Environment (IDE).

Step-II**:** Install a compiler.

Step-III**:** Set up your IDE.

Step-IV**:** Create a new project in your IDE.

Step-V**:** Click the Compile option in your IDE. On compiling three files are formed named as **.o (object file)** and **.exe (executable file/ Application)** and **.c** **(source code)** file.

Step-VI**:** Click the Run option in your IDE.

1. Explore by your own
2. What is the latest version of C Language?

**Ans.** C17 is the current standard for the C programming language in June 2018.

1. Who developed C Language?

**Ans.** Dennis Ritchie

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

**Ans. System Software**

* This acts as an interface between the system and the applications.
* A device cannot work without a system software, the user has to have it installed in their devices.
* It is an independent software. Once this is installed the computer will work and it is installed at the time of installing the operating system.
* Example includes Android, Mac Operating system, MS Windows, etc.

**Application Software**

* This is designed directly from the user perspective.
* This is a dependent software. Applications can only be downloaded when the operating system is installed
* These are designed to be user interactive, thus the application software can be removed as and when required by the user
* Examples includes Word Processor, games, media player, etc.

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

* **Step 1:**Divide the given decimal number by 2 and note the [remainder](https://www.cuemath.com/numbers/remainder/).
* **Step 2**: Now, divide the obtained quotient by 2, and note the remainder again.
* **Step 3:** Repeat the above steps until you get 0 as the quotient.
* **Step 4:**Now, write the remainders in such a way that the last remainder is written first i.e., in the reverse order.

**Ex: -** Convert the decimal number 1310 to binary.

**Ans.** Divide the given no. by 2 until you get 0 as a quotient.

13 / 2 = 6 remainder = 1

6 / 2 = 3 remainder = 0

3 / 2 = 1 remainder = 1

1 / 2 = 0 remainder = 1

1101 (In reverse order)

**1310 = 11012**

Thank You!!