**1. Why do computers understand only binary language?**

Computers understand only binary language because they are built using digital electronic circuits that have two distinct states: on and off. These states are easily represented by two symbols: 0 and 1. Binary language, which uses these two symbols, is a natural fit for the operation of computer hardware. Each binary digit (bit) can represent one of these two states, enabling computers to process and store data efficiently.

**2. What is the full form of IDE?**

The full form of IDE is **Integrated Development Environment**.

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

* **Text Editor**: A basic software application used for editing plain text. Examples include Notepad (Windows) and TextEdit (Mac). Text editors do not provide any programming-specific features.
* **Code Editor**: A specialized text editor designed specifically for writing and editing source code. Code editors typically include features such as syntax highlighting, code completion, debugging support, and other tools to help with coding. Examples include Visual Studio Code, Sublime Text, and Atom.

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

1. **Requirement Analysis**: Understand the problem and define the requirements of the software.
2. **Design**: Plan the architecture and design of the software, including flowcharts and algorithms.
3. **Setup Development Environment**: Install necessary tools such as a C compiler (like GCC) and an IDE or code editor.
4. **Write Code**: Implement the software in C, writing the source code according to the design.
5. **Compile Code**: Use a C compiler to convert the source code into machine code (object code).
6. **Linking**: Combine the object code with libraries to produce an executable program.
7. **Testing**: Run the software to test its functionality and debug any issues.
8. **Documentation**: Create documentation for the software to help users understand how to use it and maintain it.
9. **Maintenance**: Update and improve the software based on user feedback and new requirements.

**5. Explore by your own**

**a. What is the latest version of C Language?**

As of now, the latest standard of the C language is **C18** (ISO/IEC 9899:2018). It was published in June 2018 and includes technical corrections and clarifications to the previous standard, C11.

**b. Who developed C Language?**

The C programming language was developed by **Dennis Ritchie** at Bell Labs in the early 1970s.

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

* **System Software**: This software is designed to manage and control the hardware components and provide a platform for running application software. Examples include operating systems (like Windows, Linux, macOS), device drivers, and utilities.
* **Application Software**: This software is designed to help users perform specific tasks or applications. Examples include word processors (Microsoft Word), web browsers (Google Chrome), and games.

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

To convert a decimal number to a binary number:

1. **Divide** the decimal number by 2.
2. **Record** the remainder (it will be 0 or 1).
3. **Update** the decimal number to be the quotient obtained from the division.
4. **Repeat** steps 1-3 until the quotient is 0.
5. **The binary representation** is the remainders read in reverse order (from last to first).

**Example**: Convert decimal number 10 to binary:

1. 10 / 2 = 5, remainder = 0
2. 5 / 2 = 2, remainder = 1
3. 2 / 2 = 1, remainder = 0
4. 1 / 2 = 0, remainder = 1

Reading the remainders in reverse order: **1010** (binary representation of 10).