1. **Difference between scripting and programming language.**

The terms "scripting language" and "programming language" are often used interchangeably, but there are some distinctions between them. These distinctions are not always clear-cut, and the usage of the terms can vary in different contexts. Here are some general differences:

1. **Scripting Language:**
   * **Execution Context:** Scripting languages are often interpreted and executed within a runtime environment. They are typically run line by line, and the source code is directly executed by an interpreter without the need for compilation into machine code.
   * **High-Level Abstraction:** Scripting languages are designed to be easy to use and to provide a high-level abstraction. They are often used for tasks such as automating repetitive tasks, quick prototyping, or enhancing the functionality of existing software.
   * **Dynamic Typing:** Scripting languages often use dynamic typing, allowing variables to change their data types at runtime. This provides flexibility but can lead to certain types of errors.
2. **Programming Language:**
   * **Compilation:** Programming languages are often compiled into machine code or an intermediate code before execution. Compilation involves translating the entire source code into a form that can be directly executed by the computer's hardware.
   * **General-Purpose:** Programming languages are typically designed to be more general-purpose and are used for a wide range of applications, including system programming, game development, mobile app development, and more.
   * **Strong Typing:** Programming languages often use static typing, where variable types are declared and enforced at compile-time. This can catch certain types of errors before the program is executed.

For example, Python is often referred to as a scripting language, but it is also a powerful and versatile general-purpose programming language. Similarly, JavaScript is commonly used for both scripting tasks in web development and as a full-fledged programming language on both the client and server sides.

In practice, the choice between the terms "scripting" and "programming" often depends on historical context, tradition, and the intended use of the language. Both scripting languages and programming languages play crucial roles in software development, and the boundaries between them are becoming less rigid with the evolution of programming practices and language features.