

Difference Between Programming Language & Scripting Language

Feature	Programming Language	Scripting Language
Definition	Used for software & system development	Used for task automation & scripting
Compilation	Compiled before execution	Interpreted at runtime
Execution Speed	Faster	Slower
Usage	Standalone applications, OS, system software	Automation, web development
Dependency	Runs independently	Depends on host environment
Examples	C, C++, Java, Rust, Go	Python, JavaScript, PHP, Bash, Perl

Examples

1. Programming Language (Java)

```
public class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello, World!");  
    }  
}
```

2. Scripting Language (Python)

```
print("Hello, World!")
```

Conclusion

- All scripting languages are programming languages, but not all programming languages are scripting languages.
- Programming languages are used for full-scale software development.
- Scripting languages are mainly used for automation, web development, and lightweight tasks.