

Programming Language Compiling

22125023 - Lê Công Quốc Hân

PL	Name	Philosophy	Application	Top 3 Features	Paradigm
Dart	Dart	<ul style="list-style-type: none">- Simplicity- Performance	<ul style="list-style-type: none">- Mobile developement- Web development	<ul style="list-style-type: none">- Hot reload- Ahead-of-time compilation- Object-oriented	Multi-paradigm
Golang	Go	<ul style="list-style-type: none">- Simplicity- Concurrency	<ul style="list-style-type: none">- System Programming- Web Services	<ul style="list-style-type: none">- Goroutines- Built-in concurrency- Fast compilation	<ul style="list-style-type: none">- Procedural- Concurrent
JavaScript	JavaScript	<ul style="list-style-type: none">- Interactivity- Flexibility	Web developement	<ul style="list-style-type: none">- Asynchronous programming- DOM manipulation- Cross-platform	Multi-paradigm
Julia	Julia	<ul style="list-style-type: none">- Performance- Scientific focus	<ul style="list-style-type: none">- Data Science- Numerical Analysis	<ul style="list-style-type: none">- Just-in-time compilation- Dynamic typing- Parallel computing	Multi-paradigm
Kotlin	Kotlin	<ul style="list-style-type: none">- Conciseness- Safety	<ul style="list-style-type: none">- Android development- Web development	<ul style="list-style-type: none">- Null safety- Interoperability with Java- Coroutines	Multi-paradigm
OCaml	OCaml	<ul style="list-style-type: none">- Expressiveness	<ul style="list-style-type: none">- System	<ul style="list-style-type: none">- Strong typing	Functional

		<ul style="list-style-type: none"> - Type safety 	<ul style="list-style-type: none"> Programming - Research 	<ul style="list-style-type: none"> - Pattern matching - Functional Programming 	
Java	Java	<ul style="list-style-type: none"> - Portability - Robustness 	<ul style="list-style-type: none"> - Enterprise Application - Android Development 	<ul style="list-style-type: none"> - Platform independence - Object - oriented - Garbage collection 	Object - oriented
PHP	Personal Home Page Hypertext Preprocessor	<ul style="list-style-type: none"> - Simplicity - Flexibility - Web focused 	<ul style="list-style-type: none"> - Web app - Server-side scripting 	<ul style="list-style-type: none"> - Embedded HTML - Database integration - Open-source 	Multi-paradigm
Python	Python	<ul style="list-style-type: none"> - Readability - Simplicity 	<ul style="list-style-type: none"> - Data Science - Web development - AI/ML 	<ul style="list-style-type: none"> - Easy syntax - Extensive libraries - Interpreted 	Multi-paradigm
R	R	<ul style="list-style-type: none"> - Statistically Computing - Open-source 	<ul style="list-style-type: none"> - Data Analysis - Statistics 	<ul style="list-style-type: none"> - Data Visualization - Statiscal packages - Matrix operations 	<ul style="list-style-type: none"> - Functional - Procedural
Ruby	Ruby	<ul style="list-style-type: none"> - Simplicity 	<ul style="list-style-type: none"> - Web development - Scripting 	<ul style="list-style-type: none"> - Dynamic typing - Metaprogramming - Readable Syntax 	Multi-paradigm
Rust	Rust	<ul style="list-style-type: none"> - Safety - Performance 	<ul style="list-style-type: none"> - Systems Programming - Web Assembly 	<ul style="list-style-type: none"> - Memory safety - Zero-cost abstractions - Concurrency 	Multi-paradigm
Scala	Scala	<ul style="list-style-type: none"> - Scalability - Conciseness 	<ul style="list-style-type: none"> - Big Data - Web development 	<ul style="list-style-type: none"> - Functional Programming - Interoperability with Java 	Multi-paradigm

				- Type inference	
Lua	Lua	<ul style="list-style-type: none">- Lightweight- Embeddability	<ul style="list-style-type: none">- Game Development- Scripting	<ul style="list-style-type: none">- Small footprint- Extensibility- Simple Syntax	Multi-paradigm
SAS	SAS	<ul style="list-style-type: none">- Data analysis- Business focus- Reliability	<ul style="list-style-type: none">- Business Analytics- Statistics	<ul style="list-style-type: none">- Data Management- Statistical modeling- Reporting	Procedural