

	Lisp 1958	C 1972	C++ 1984	ML/Caml 1978	Java 1994	C# 1999	Scala 2003	F# 2009	Clojure 2009	Go 2009	Ceylon 2011	Dart 2011	Objective C 1986
First created	McCarthy	Kernighan, Rit	Stroustrup	Milner	Arnold, Goslin	Hejlsberg	Odersky	Syme	Rich Hickey	Pike	King	Bracha, Bak	Cox
Chief designers	MIT	Bell Labs	Bell Labs	Edinburgh U	Sun (Oracle)	Microsoft	EPFL (universi	Microsoft	(OSS?)	Google	Redhat	Google	Nextstep (Apple)
Company	Own	(None)	(None)	Own	JVM	.NET/CLI	JVM	.NET/CLI	JVM	Own	JVM, Javascr	Javascript	Own
Runtime	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	(Yes)
Garbage collection	Yes	No	No	Yes	No	No	No	No	Yes?	No	Yes	(exercise)	(exercise)
References are safe	No	No	Yes	No	Yes	Yes	Yes	(Yes)	Yes	Yes	Yes	(exercise)	(exercise)
Object-oriented	No	No	Yes	No	Yes	Yes	Yes	(Yes)	Yes	Yes	Yes	(exercise)	(exercise)
Method overloading	-	-	Yes	-	Yes	Yes	Yes	Yes	No	No	No	(exercise)	(exercise)
Virtual methods	-	-	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes?	Yes	(exercise)	(exercise)
Inheritance	-	-	Multiple	-	Single	Single	Single	Single	Single	No?	Single	(exercise)	(exercise)
Interfaces/traits	-	-	No	-	Interfaces	Interfaces	Traits	?	Protocols	Interfaces	Traits (called i	(exercise)	(exercise)
Functional	(Yes)	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	(exercise)	(exercise)
Closures capture	-	-	-	rvalue	rvalue	lvalue	lvalue	lvalue	lvalue?	-	lvalue?	(exercise)	(exercise)
Static types	No	(Yes)	Yes	Yes	Yes	Yes	Yes	Yes	Optional	Yes	Yes	(exercise)	(exercise)
Generic types, parametric	No	No	(Yes)	Yes	Yes	Yes	Yes	Yes	-	No	Yes	(exercise)	(exercise)
Type parameter bounds	-	-	No	No	Yes	Yes	Yes	Yes	-	-	Yes	(exercise)	(exercise)
Co/contravariance	-	-	No	No	No	Yes	Yes	No	-	-	Yes	(exercise)	(exercise)
Higher-kinded types	-	-	No	No	No	No	Yes	No	-	out	No	(exercise)	(exercise)
Pattern matching	No	No	No	Yes	No	No	Yes	Yes	No	No	(Yes)	(exercise)	(exercise)
Dynamic typing	(Yes)	No	No	No	No	Yes	Yes	No	Yes	No?	No	(exercise)	(exercise)
Exceptions	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	(exercise)	(exercise)
Checked exceptions	-	-	No	No	Yes	No	No	No	No	-	No	(exercise)	(exercise)
Reflection	No	No	No	No	(Yes)	Yes	Yes	(Yes)	(Not quite)	Yes	Yes	(exercise)	(exercise)
Concurrency	No	OS processes	OS processes	OS processes	Threads	Threads, asyn	Actors	Async	Transactional i	"Goroutines"	Threads??	(exercise)	(exercise)
Comm/sync	No	(Library)	(Library)	(Library)	Locks	Locks, await	Messages	Messages	Atomic section	Channels	Locks??	(exercise)	(exercise)