



Swift

Prosis:

• Memory & thread safe

- Opt-out runtime checks (for performance)

o. Gons:

• Apple specific (at least ecosystem)

• Implementing C++ in C



Type	Static type system
Bounds	Checked
Lifetime	Value semantics & Ref-counted
Initialisation	Enforced
Arithmetic	Trap/explicit behaviour
Thread	Enforced actors & sendable
Definition	Modules



- **Pros:**

- Memory & thread safe
- Opt-out runtime checks (for performance)

- **Cons:**

- Apple specific (at least ecosystem)
- Immature C++ interop

Type	Static type system
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```
var numbers = [1, 2, 3]
var iterator = numbers.makeIterator()
numbers = [6, 7, 8]

while let number = iterator.next() {
    print(number)
}
```