iOS 18

- release notes

What's new in Xcode 16

- release notes
- supports editor.config files.
  - Xcode supports the following settings: indent_style, tab_width, indent_size, end_of_line, insert_final_newline, max_line_length, and trim_trailing_whitespace.
- Several improvements to parallel compilation, new complile inspection tools

Swift Testing

- Modern replacement for XCTest
- Heavy use of macros and property wrappers
- Can feed test functions collections of input data, tests run in parallel
- Nice new UI to help show failures, stack trace, and memory.
- https://developer.apple.com/xcode/swift-testing/

Swift Packages

- Now supports running tests written using Swift Testing. To enable these tests at the command line, pass `--enable-swift-testing`.
- `swiftLanguageVersion` can be specified at the target level, allowing for gradual per-target migration to the Swift 6 language mode. (125732014)
- [SE-0301] has been implemented, allowing `Package.swift` to be edited through new package commands `add-dependency`, `add-product`, and `add-target`. See swift package -h for more details. (126377239)
  - `/Applications/Xcode-16.0.0-Beta.app/Contents/Developer/Toolchains/XcodeDefault.xctoolchain/usr/bin/swift`

What's new in Swift

- Functions can now specify the type of error that they throw (typed throws (SE-0413)) as part of the function signature. For example:

```swift
func parseRecord(from string: String) throws(ParseError) -> Record {
... }

extension Sequence {
  func map<T, E>(_ body: (Element) throws(E) -> T) throws(E) -> [T] {
... }
}
```

- This is compatible with Swift 5 as well as Swift 6 with some difference to inferance when throws are not typed.