SwiftUI에서 NaverMap 적용해보기
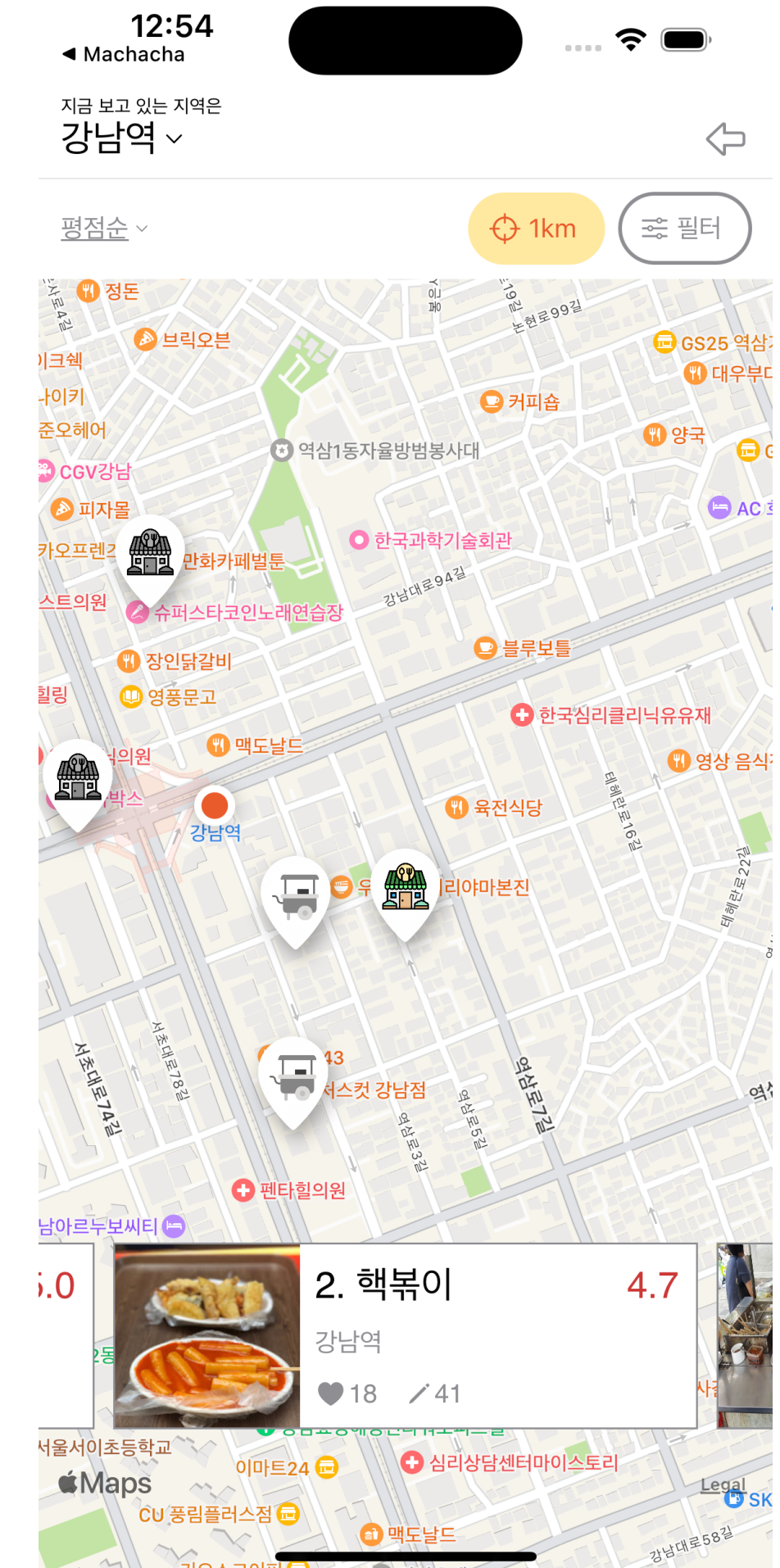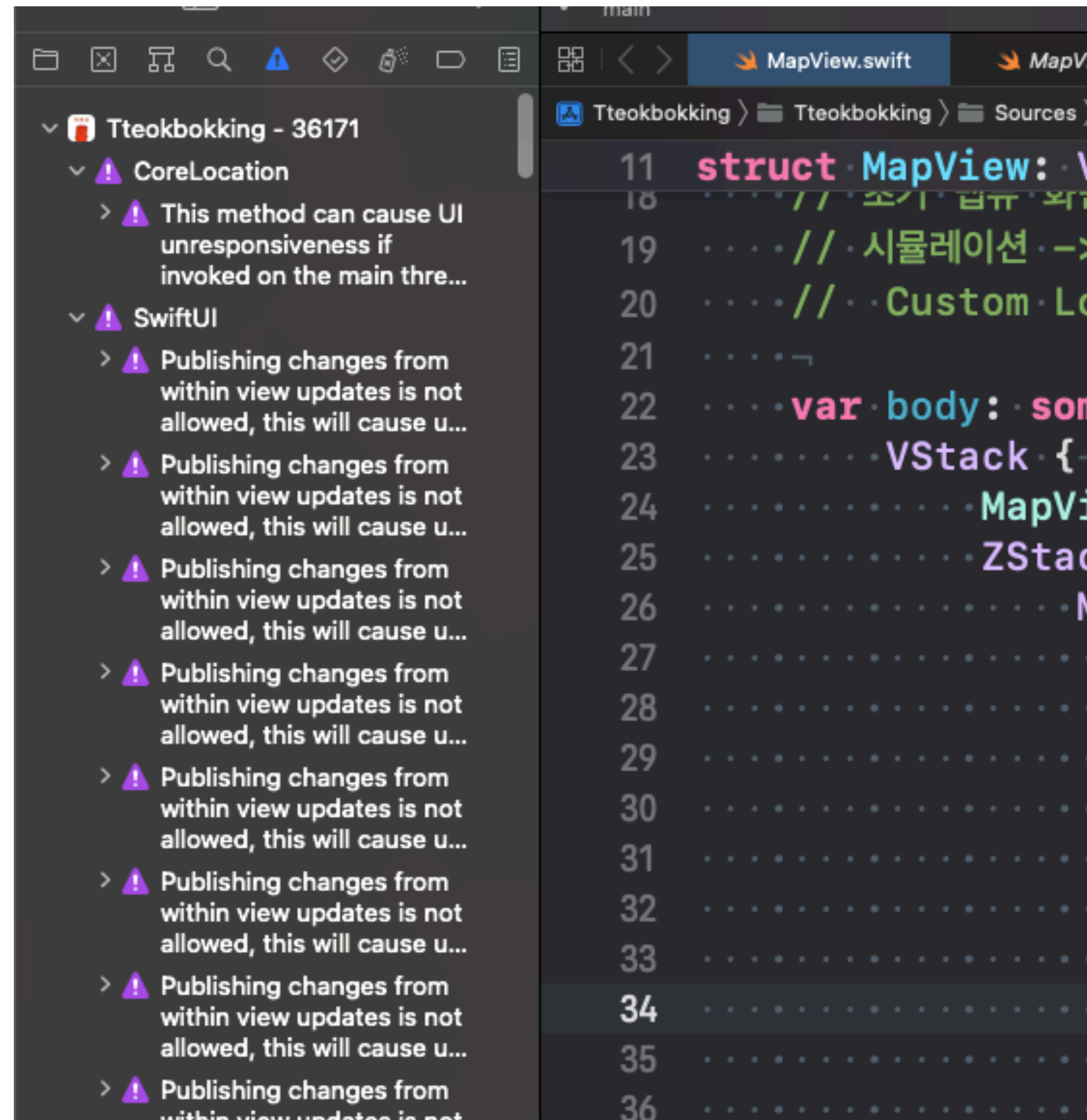
목차

- Mapkit

- NaverMap

MapKit

MapKit 왜 버렸어요?
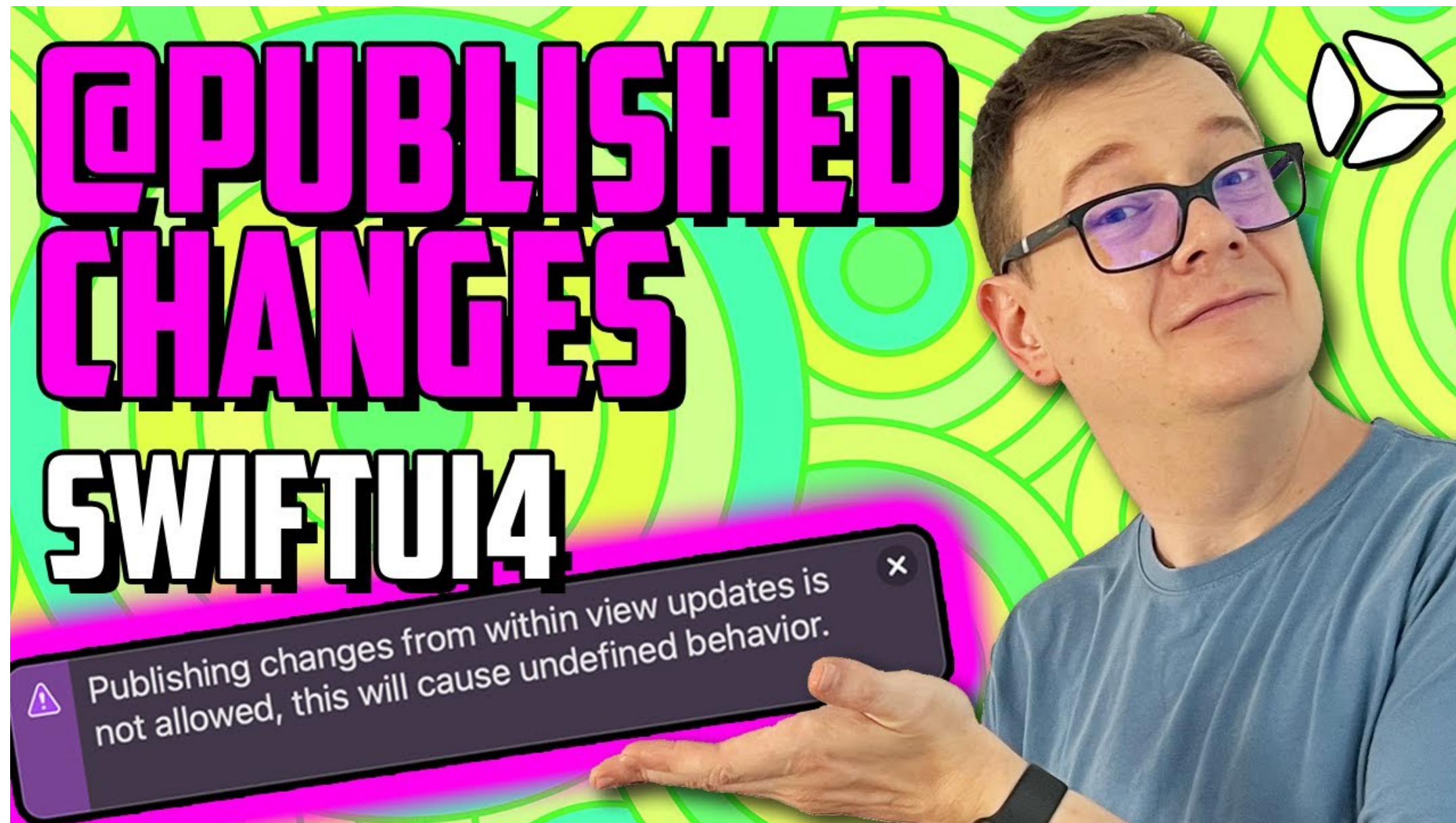
- 치명적 오류(앱이 꺼짐)

- 오류가 미친듯이 생김…

MapKit
해결하기 위한 여러 가지 방법

한줄 요약

You should not bind "Publish Variable"

-> onReceive로 한번 가공해줘야한다!

MapKit
해결 방안 -> 없음

MapAnnotation -> MapMarker 변경해라

MapAnnotationProtocol 자체가 문제다

결론 : SwiftUI Map 말고
UIViewRepresentable 사용해라

The same problem! I found that if you replace MapAnnotation with MapMarker the problem disappears. The problem is most likely in the library itself

I've got the same problem. Like the OP found, MapMarker is OK, MapAnnotation isn't, no matter how simple (even with nothing but an `EmptyView`). Also, if I click on one of the purple triangles XCode claims it's caused by the `@main` annotation before my App definition.

I've tried eliminating all @State vars from my View, and wrapped my MKCoordinateRegion in a simple class to make it mutable, and passed a simple binding to the Map constructor:

```
Binding(
    get: {coordinateRegionHolder.coordinateRegion},
    set: { region in
      self.coordinateRegionHolder.coordinateRegion = region
    })
```

I'm still getting those error messages. I think something in MapAnnotation is incorrectly modifying some internal state during update, because it seems less likely to me that XCode would misdetect it if it isn't happening. We're not supposed to make our own custom annotations by implementing `MapAnnotationProtocol` (why not?), so it looks like `UIViewRepresentable` is the only way we can be confident of reliably displaying a map with custom annotations.

Posted 19 hours ago by 👤 realh ⬆

This issue started in XCode 14 (Beta 5?) and iOS16. Nobody knows what it is, why it happens, and if it is an issue that might cause crashes or other side effects or simply a bug in XCode 14 - iOS 16. There is no advice from apple on properly handling this warning and it is not only MapKit-related (although I encountered it for the first time while playing with MapKit) but happens everywhere where you bind to a published property. Some have figured it is related to view animations (MapKit moving the map, a button fading on click, etc.). So an ugly workaround is to wrap the access to this property with a timer that delays actions until the animation ends.

NaverMap
NaverMap vs KakaoMap

* 한국에서 가장 많이 사용하는 Map Library

* NaverMap -> Swift

* KakaoMap -> Objective-C

NaverMap
사용법

1. Naver CloudPlatform Application 등록

2. Info.plist에 ClientID 입력

3. NMapsMap 라이브러리 설치

4. UIViewRepresentable 사용해서 Map 그려주기

NaverMap
UIViewRepresentable

makeUIView(context:) -> Self.UIViewType

UIView를 생성하고 초기화

```swift
func makeUIView(context: Context) -> some NMFNaverMapView {
    let view = NMFNaverMapView()
    view.showZoomControls = false
    view.mapView.positionMode = .direction
    view.mapView.zoomLevel = 17
    let locationOverlay = view.mapView.locationOverlay
    view.showLocationButton = true
    view.showCompass = true
    view.showZoomControls = true
    let cameraPosition = view.mapView.cameraPosition

    // Foodcart를 맵에 마커로 표현
    for foodCart in foodCarts {
        let marker = NMFMarker()
```

NaverMap
UIViewRepresentable

updateUIView(_ :context)

  UIView의 업에이트가 필요할 때 호출

```swift
func updateUIView(_ uiView: UIViewType, context: Context) {
    let coord = NMGLatLng(lat: coord.0, lng: coord.1)
    let cameraUpdate = NMFCameraUpdate(scrollTo: coord)
    cameraUpdate.animation = .fly
    cameraUpdate.animationDuration = 1
    uiView.mapView.moveCamera(cameraUpdate)
}
```

NaverMap
UIViewRepresentable

Coordinator

UIkit -> SwiftUI로 데이터 전달(delegate 역할)

```swift
class Coordinator: NSObject, NMFMapViewCameraDelegate, NMFIndoorSelectionDelegate {
    func indoorSelectionDidChanged(_ indoorSelection: NMFIndoorSelection?) {

    }

    var coord: (Double, Double)
    init(_ coord: (Double, Double)) {
        self.coord = coord
    }


    func mapView(_ mapView: NMFMapView, cameraWillChangeByReason reason: Int, animated: Bool)
        {
        print("카메라 변경 - reason: \(reason)")
    }

    func mapView(_ mapView: NMFMapView, cameraIsChangingByReason reason: Int) {
        print("카메라 변경 - reason: \(reason)")
    }
}
```

```swift
    view.mapView.removeIndoorSelectionDelegate(delegate: context.coordinator)
    print("camera pos: \(cameraPosition)")
    return view
```

NaverMap
도전과제

1. Naver Map Image Clustering

   - NaverMap은 Image Clustering을 제공하지 않음(GoogleMap은 있음)

   - 라이브러리

2. Delegate를 이용해서 marker 클릭시 sheetView 전환