快速开发跨平台SDK

Golang在移动客户端开发中的应用

为什么用Golang?

* 可读性

* 编译速度快

* Gorouting

  * 天生适合大并发的后端服务

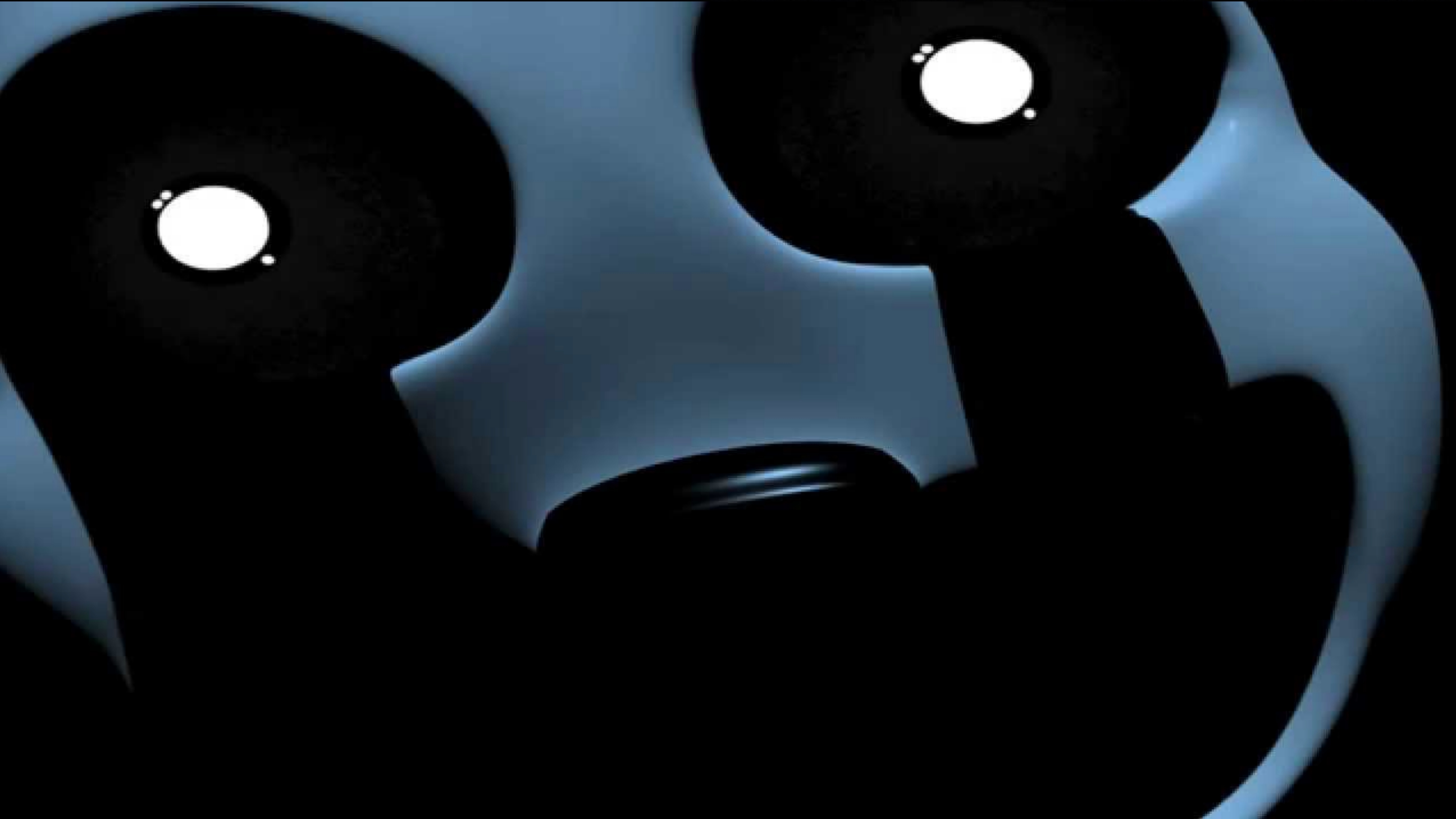# 兼容多平台的挑战

体验与开发效率的悖论

技能树

安卓	iOS
Java	Swift
JNI & C/C++	Object-C
Eclipse & IntelliJ	Xcode

典型解决方案

React Native	Javascript
Xamarin	C#
各自独立的前端开发团队	…@%￥#%…

-buildmode 和 -tags

Golfing 1.5令人惊喜的新特性

Demo

```
//  编译静态链接库
$ go build -buildmode=c-archive\
    github.com/tomasen/gomobile-demo/c/hello


$ go build -buildmode=c-archive\
    github.com/tomasen/gomobile-demo/c/world
```

main.go

1

Gomobile

和 gobind

安装开发环境

```
// 安装 gomobile
$ go get golang.org/x/mobile/cmd/gomobile

// 初始化开发环境
$ gomobile init
```

编译项目

```
// 编译安卓版本
$ gomobile bind -target=android \
    github.com/tomasen/gomobile-demo/sdk


// 编译iOS版本
$ gomobile bind -target=ios \
    github.com/tomasen/gomobile-demo/sdk
```

编译项目

```
// 编译安卓版本
$ gomobile bind -target=android \
    github.com/tomasen/gomobile-demo/sdk


// 编译iOS版本
$ gomobile bind -target=ios \
    github.com/tomasen/gomobile-demo/sdk
```

编译项目

```
// Gomobile 的背后
gobind -lang=java -javapkg=

gobind -lang=objc -prefix=

go build -buildmode=c-archive -tags=ios -pkgdir=

go build -buildmode=c-shared -tags=android -pkgdir=
```
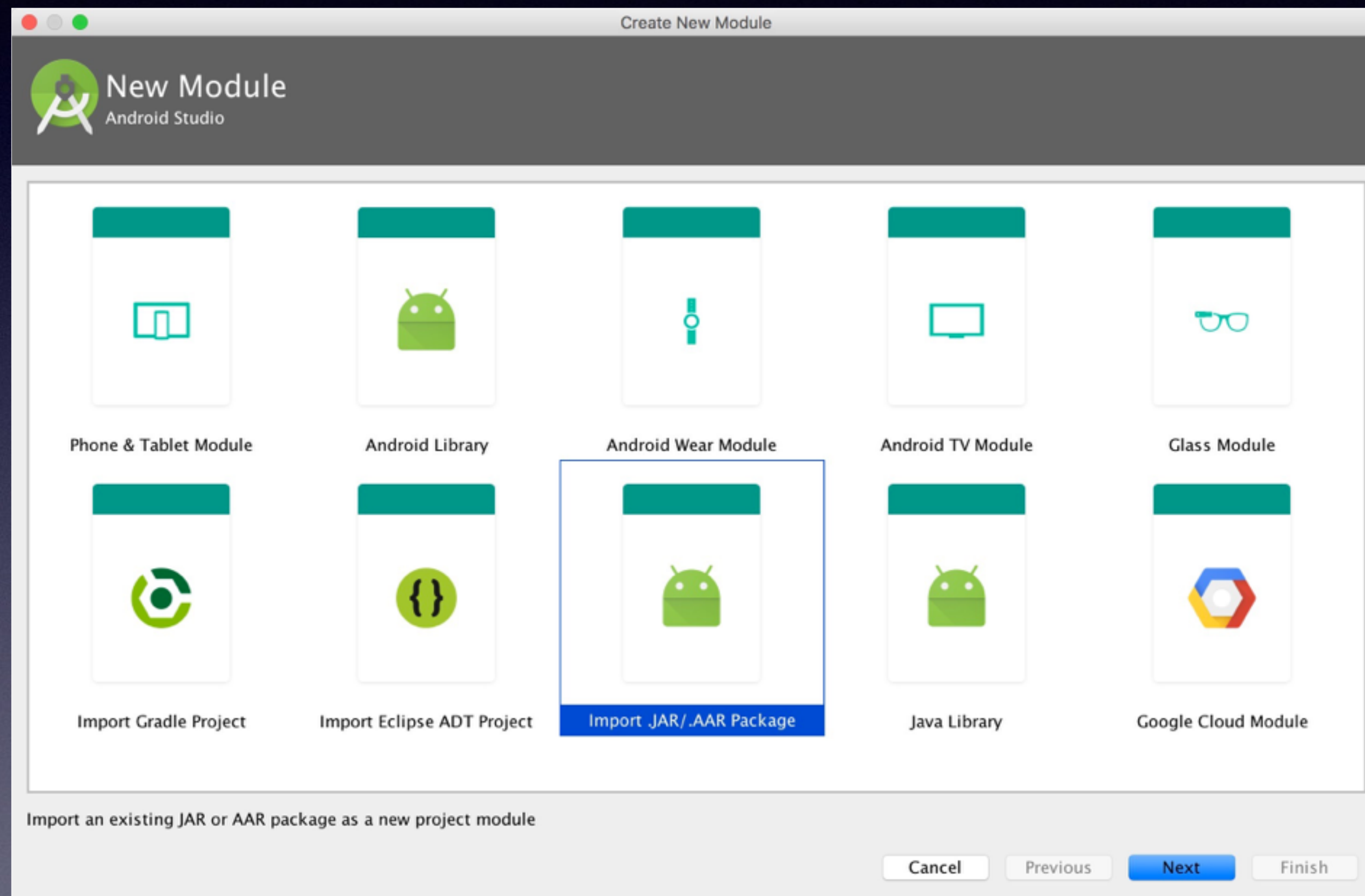
安卓项目导入aar

Possibility

同时兼容 iOS、安卓，甚至Mac、Windows 的SDK和链接库

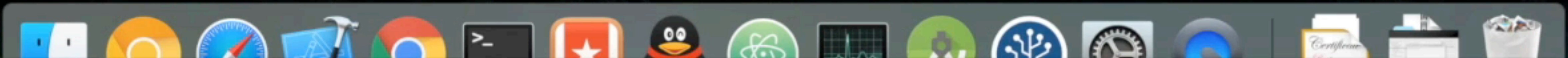# DEMO

github.com/tomasen/gomobile-demo/

```go
package GopherKit
```

GopherDemoIOS ⟩ Gop...oIOS ⟩ ViewController.swift ⟩ No Selection

```
//
//  ViewController.swift
//  GopherDemoIOS
```

Quick Help

No Quick Help

Search Documentation

GopherDemoIOS
- ▼ GopherDemoIOS
  - ▶ GopherKit.framework
  - AppDelegate.swift
  - ViewController.swift M
  - Main.storyboard
  - Assets.xcassets
  - LaunchScreen.storyboard
  - Info.plist
- ▼ Products
  - GopherDemoIOS.app

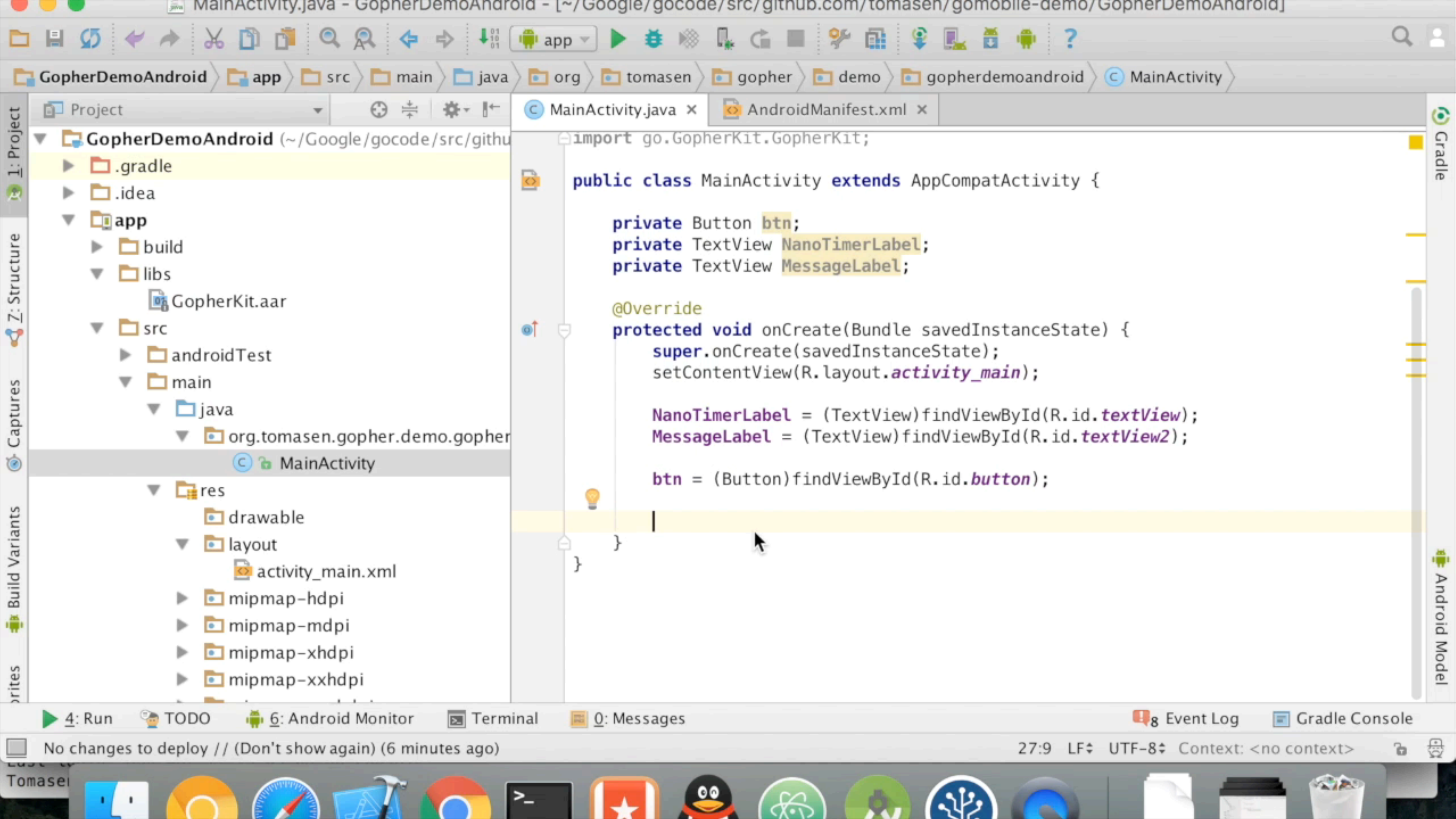gomobile-demo — -bash — 80×24

Tomasens-New-MacBook:gomobile-demo tomasen$

View Controller - A controller that manages a view.

Storyboard Reference - Provides a placeholder for a view controller in an external storyboard.

Navigation Controller - A controller that manages navigation through a hierarchy of views.

Filter

GopherDemoAndroid ▸ app ▸ src ▸ main ▸ java ▸ org ▸ tomasen ▸ gopher ▸ demo ▸ gopherdemoandroid ▸ MainActivity

Project

MainActivity.java ✕   AndroidManifest.xml ✕

GopherDemoAndroid (~/Google/gocode/src/githu
- .gradle
- .idea
- app
  - build
  - libs
    - GopherKit.aar
  - src
    - androidTest
    - main
      - java
        - org.tomasen.gopher.demo.gopher
          - MainActivity
      - res
        - drawable
        - layout
          - activity_main.xml
        - mipmap-hdpi
        - mipmap-mdpi
        - mipmap-xhdpi
        - mipmap-xxhdpi

```java
import go.GopherKit.GopherKit;


public class MainActivity extends AppCompatActivity {

    private Button btn;
    private TextView NanoTimerLabel;
    private TextView MessageLabel;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        NanoTimerLabel = (TextView)findViewById(R.id.textView);
        MessageLabel = (TextView)findViewById(R.id.textView2);


        btn = (Button)findViewById(R.id.button);

    }
}
```

4: Run   TODO   6: Android Monitor   Terminal   0: Messages   8 Event Log   Gradle Console

No changes to deploy // (Don't show again) (6 minutes ago)   27:9   LF⧧   UTF-8⧧   Context: <no context>

未来的应用场景

- RESTFul API Client Library

- 同时访问主备服务器，使用更快的返回内容

- 后台资源下载

- 快速进行原型开发

Gomobile的缺点

- 每个项目只能有一个Gomobile库

- 通过Go与Java之间是通过类似RPC的方式通讯

  - 性能还不是最优解

开始关注使用Golang！

- https://github.com/tomasen/gomobile-demo/

- https://github.com/golang/go/wiki/Mobile

- http://blog.ralch.com/tutorial/golang-sharing-libraries/

- https://godoc.org/golang.org/x/mobile/cmd/gomobile

- https://github.com/golang/go/wiki/cgo

- https://docs.google.com/document/d/1y9hStonl9wpj-5VM-xWrSTuEJFUAxGOXOhxvAs7GZHE/preview

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