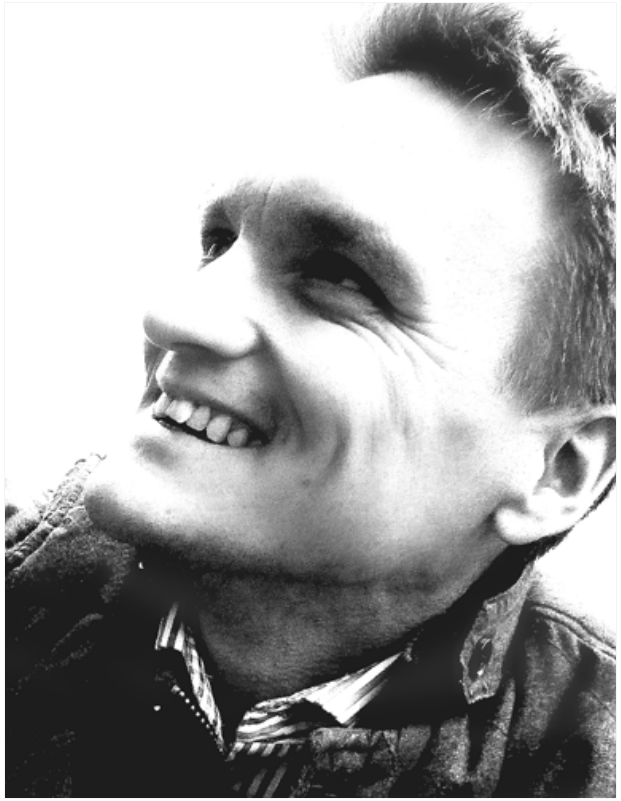
Back to Mobile

Java 8 on iOS, Android, and Windows

Niklas Therning (CTO RoboVM AB)



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About
FAQ
Stop it.
One cloud-based spam protection for all your devices
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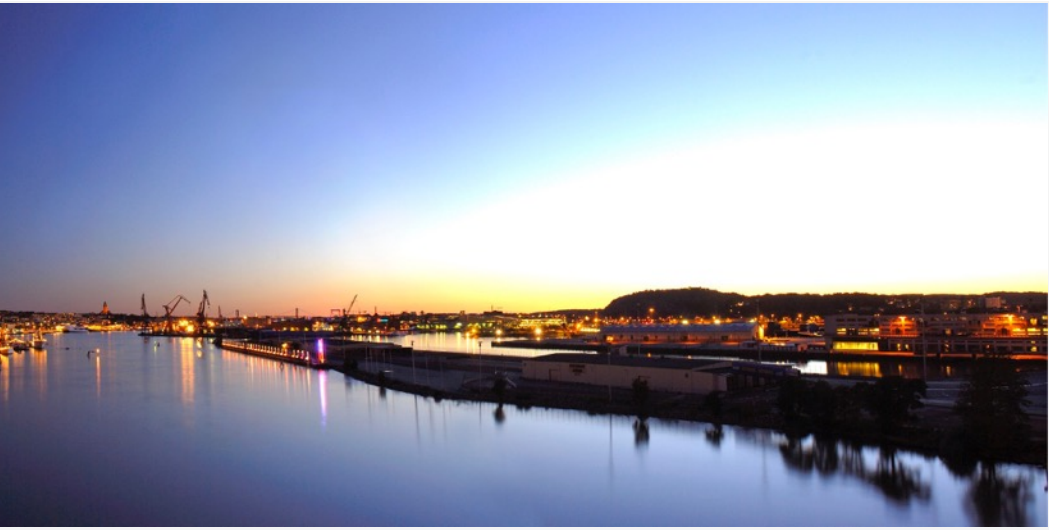
App Store
SpamDrain
We are really sick of having our time wasted by stupid spam and that's why we've invented this service. Join us and experience how hassle-free life can be without spam.
SpamDrain is a highly intelligent service that stops spam before it reaches any of your devices. It's web-based, has a super-fast setup and is really easy-to-use.
SpamDrain+
Need a little bit more?
With SpamDrain+ you can add multiple users and filter several addresses, setup domain filtering and access our live customer support. You pay per filtered email address.



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HTML

Java

[ObjC]

Java

[ObjC]

C#

C#

ROBOVM

USE YOUR **JAVA SKILLS** TO CREATE
GREAT **MOBILE APPS**

MOBILE TRANSFORMS HOW BUSINESS GETS DONE

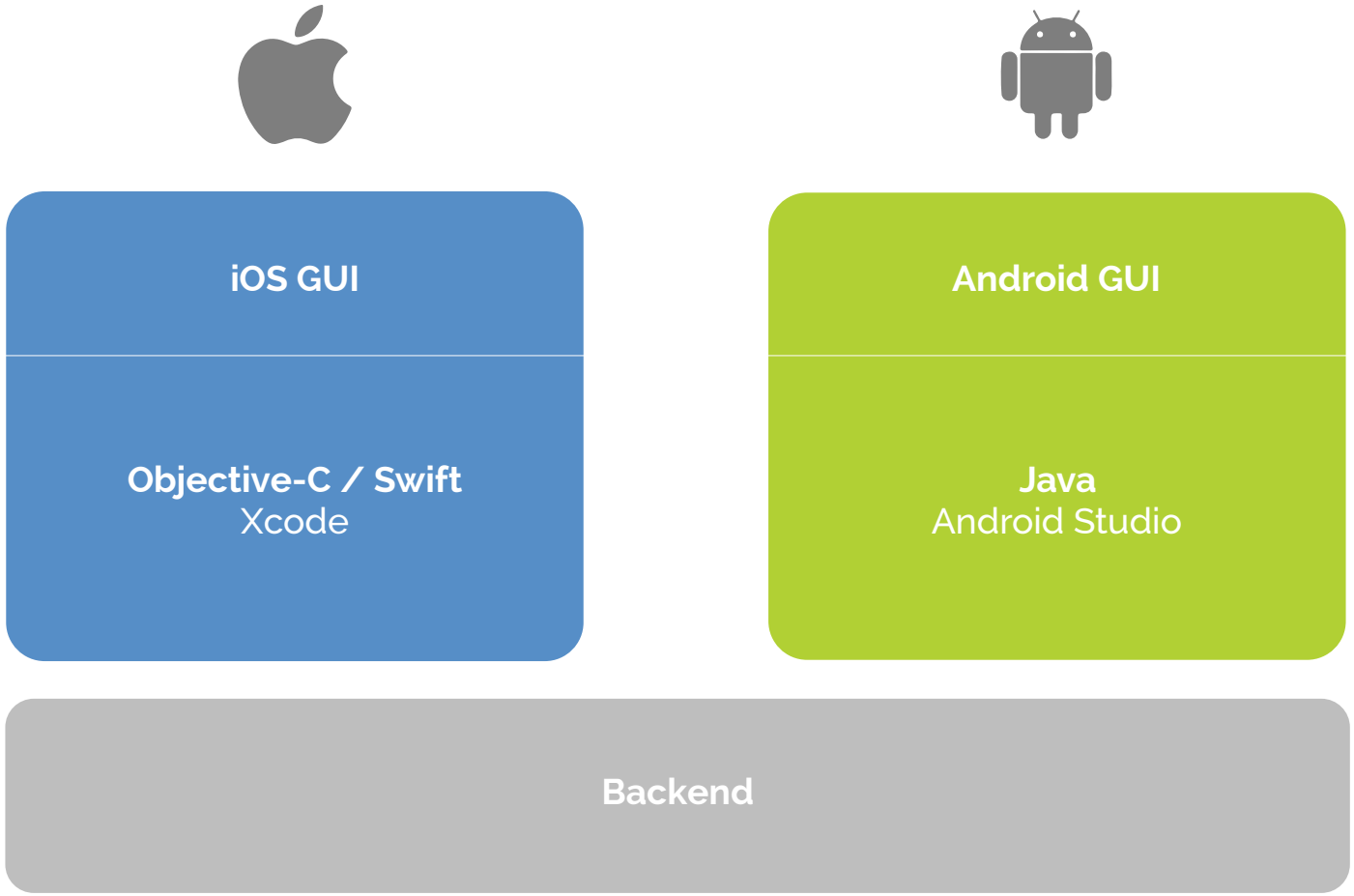
MOBILE TRANSFORMS HOW BUSINESS GETS DONE

MOBILE TRANSFORMS HOW BUSINESS GETS DONE

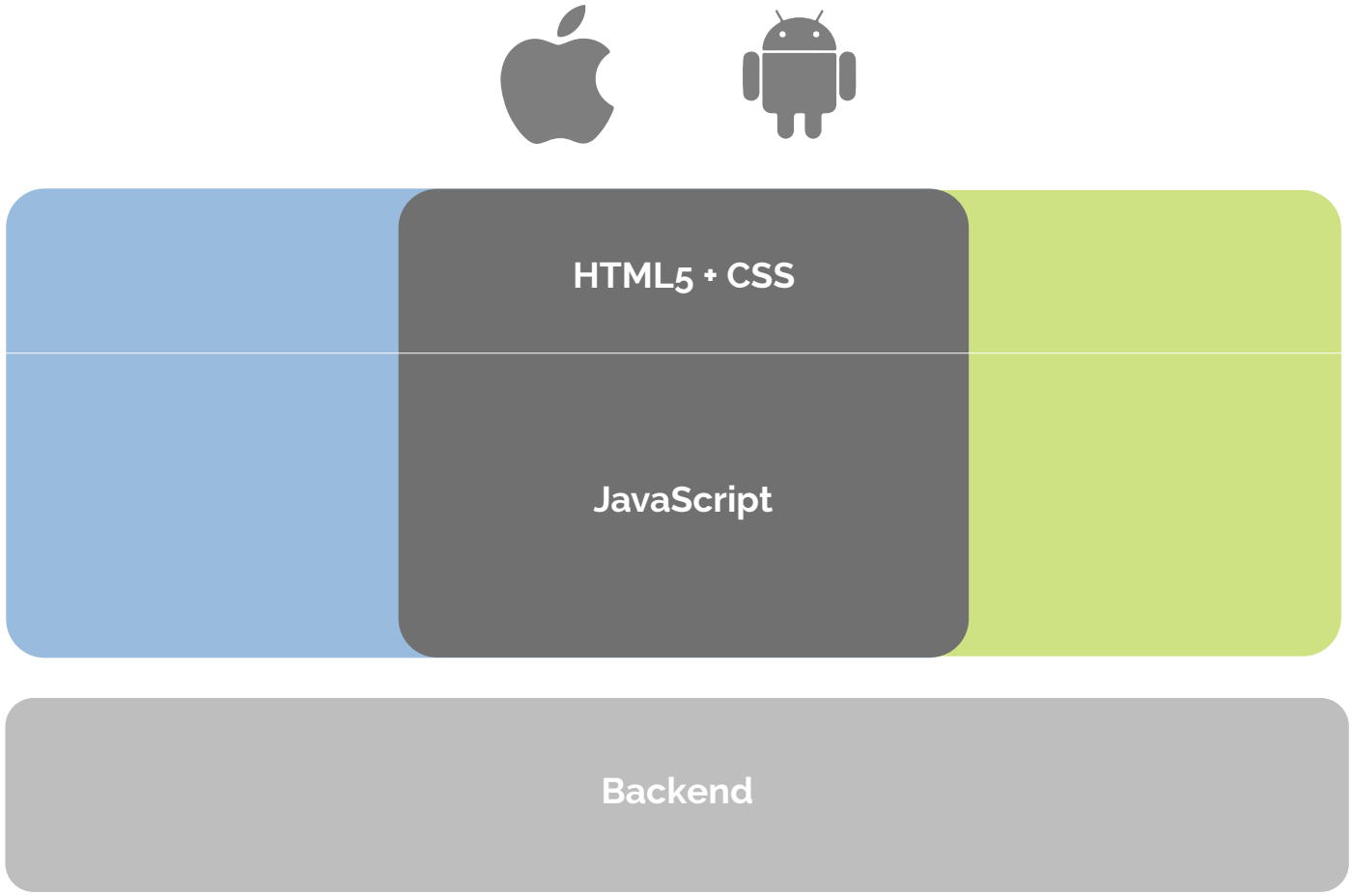
NATIVE TOOLS
NATIVE LANGUAGES

Develop for iOS and Android separately

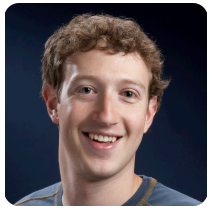
Build your apps multiple times



WEB TECHNOLOGIES



"I think the biggest mistake we made as a company was betting too much on HTML5 as opposed to native."



Mark Zuckerberg
CEO
facebook

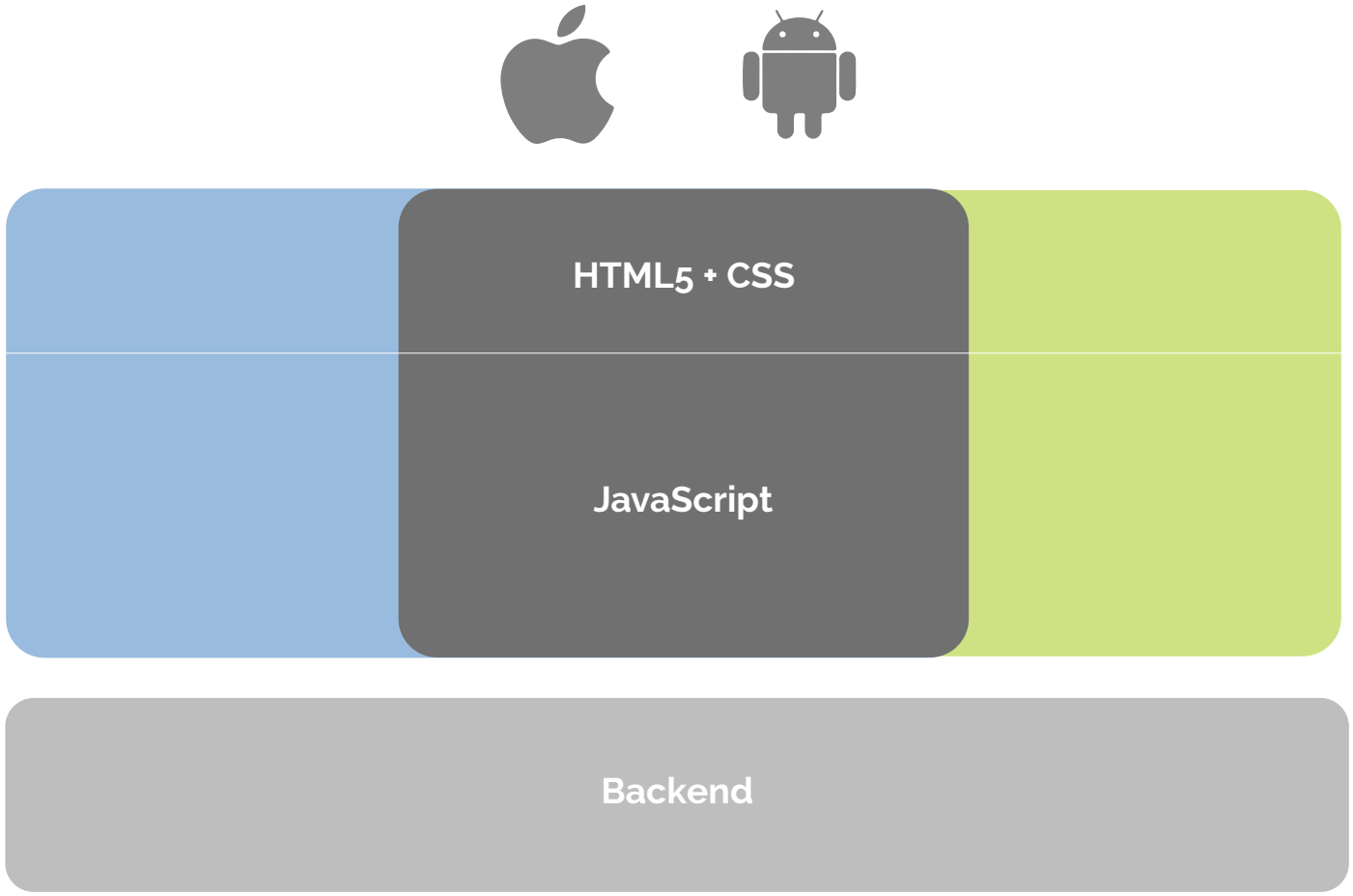
WEB TECHNOLOGIES

Lowest common denominator

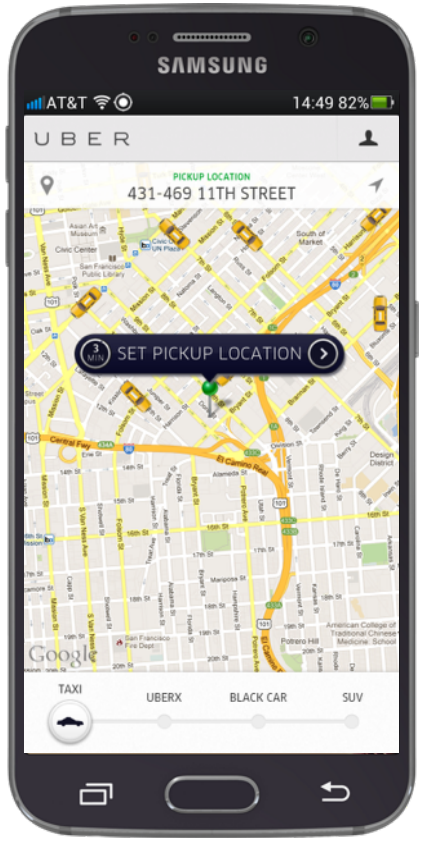
Limited functionality

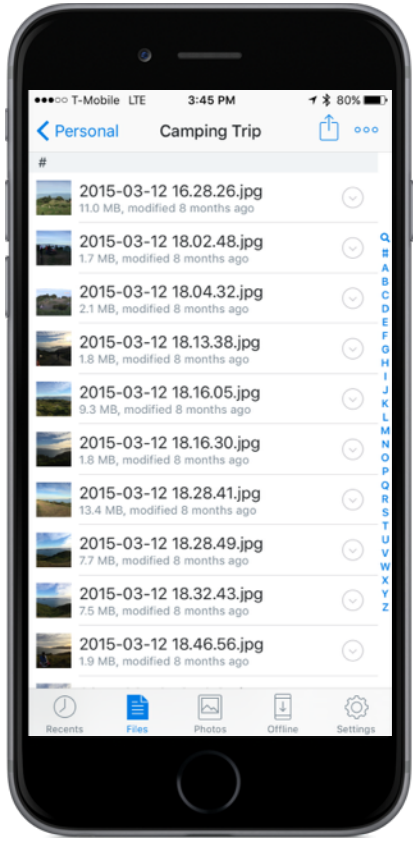
Poor performance

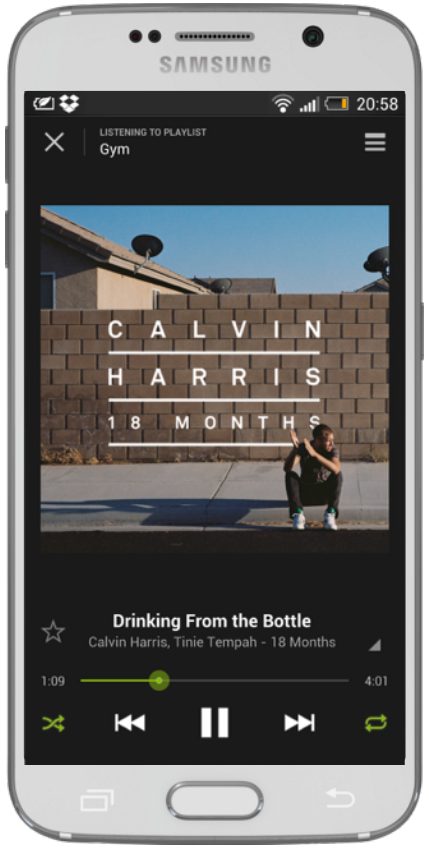
Non-native UI

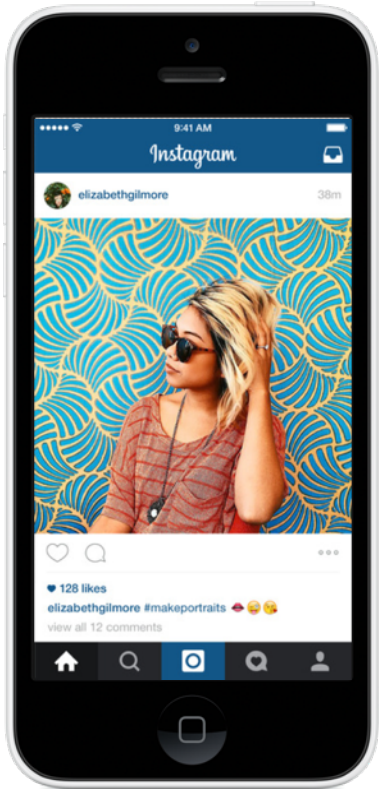


ROBOVM









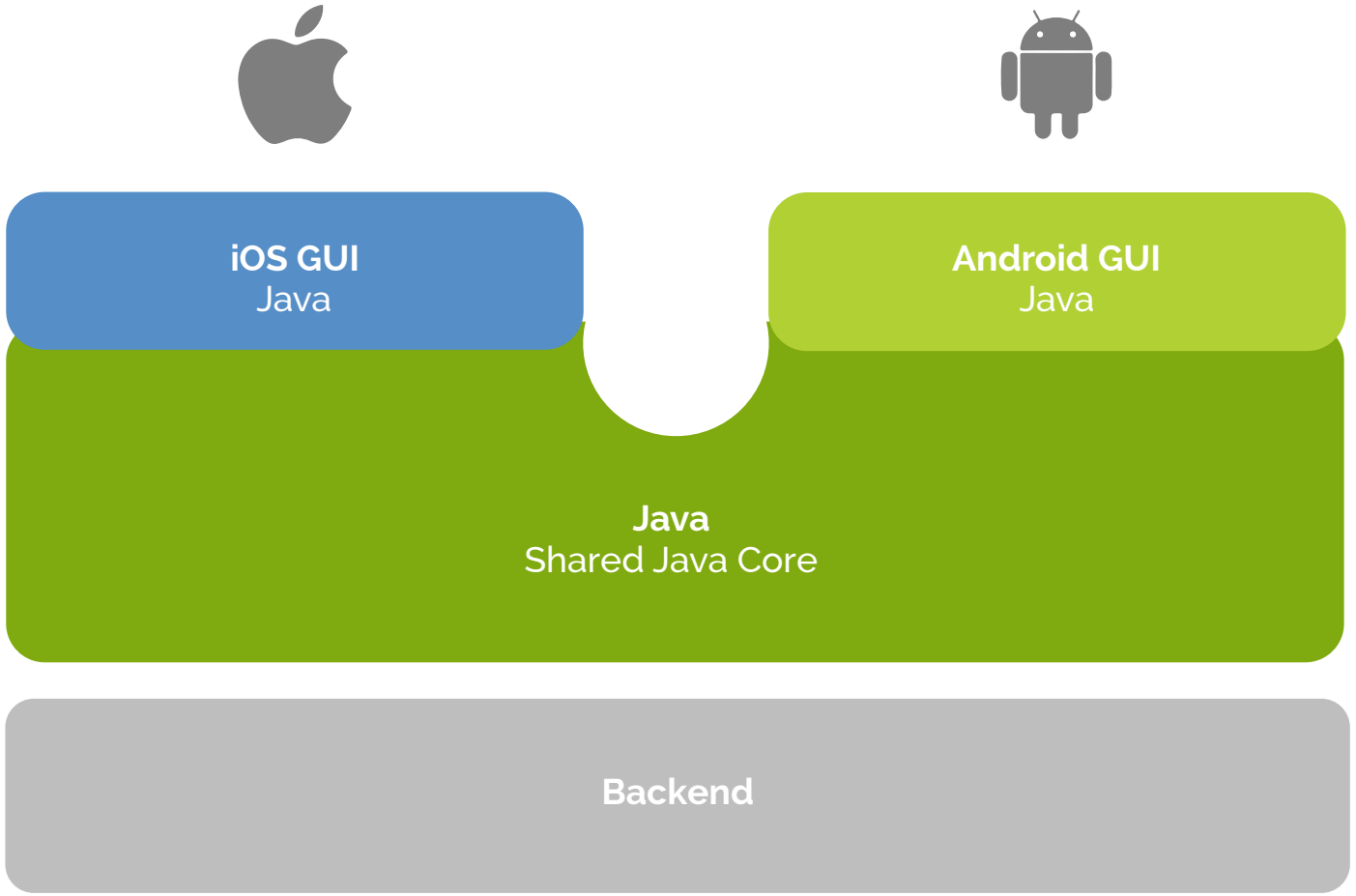
USERS EXPECT A GREAT USER EXPERIENCE

THE **ROBOVM** APPROACH

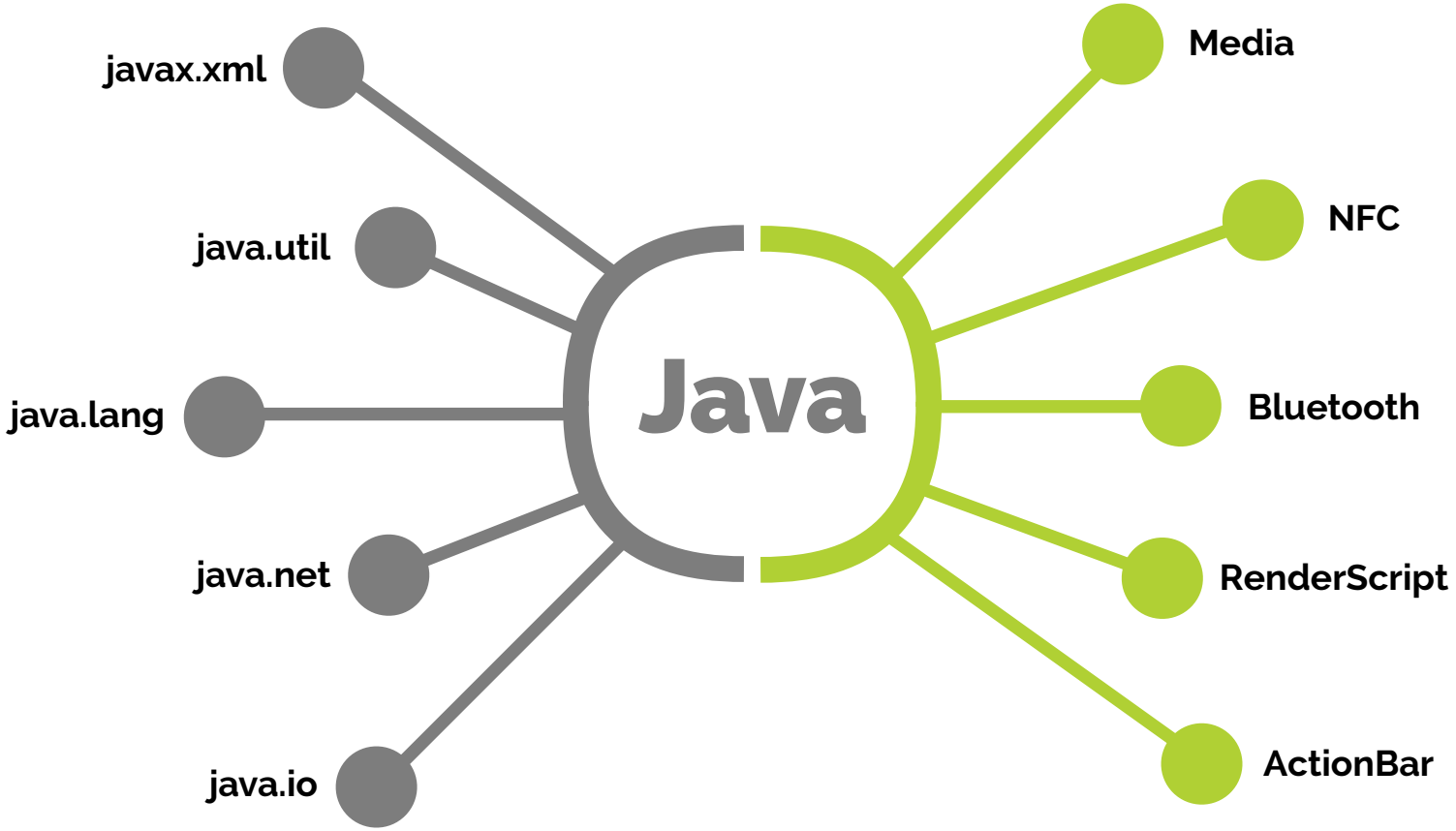
THE ROBOVM APPROACH

Shared Java core

Native UIs for iOS and Android



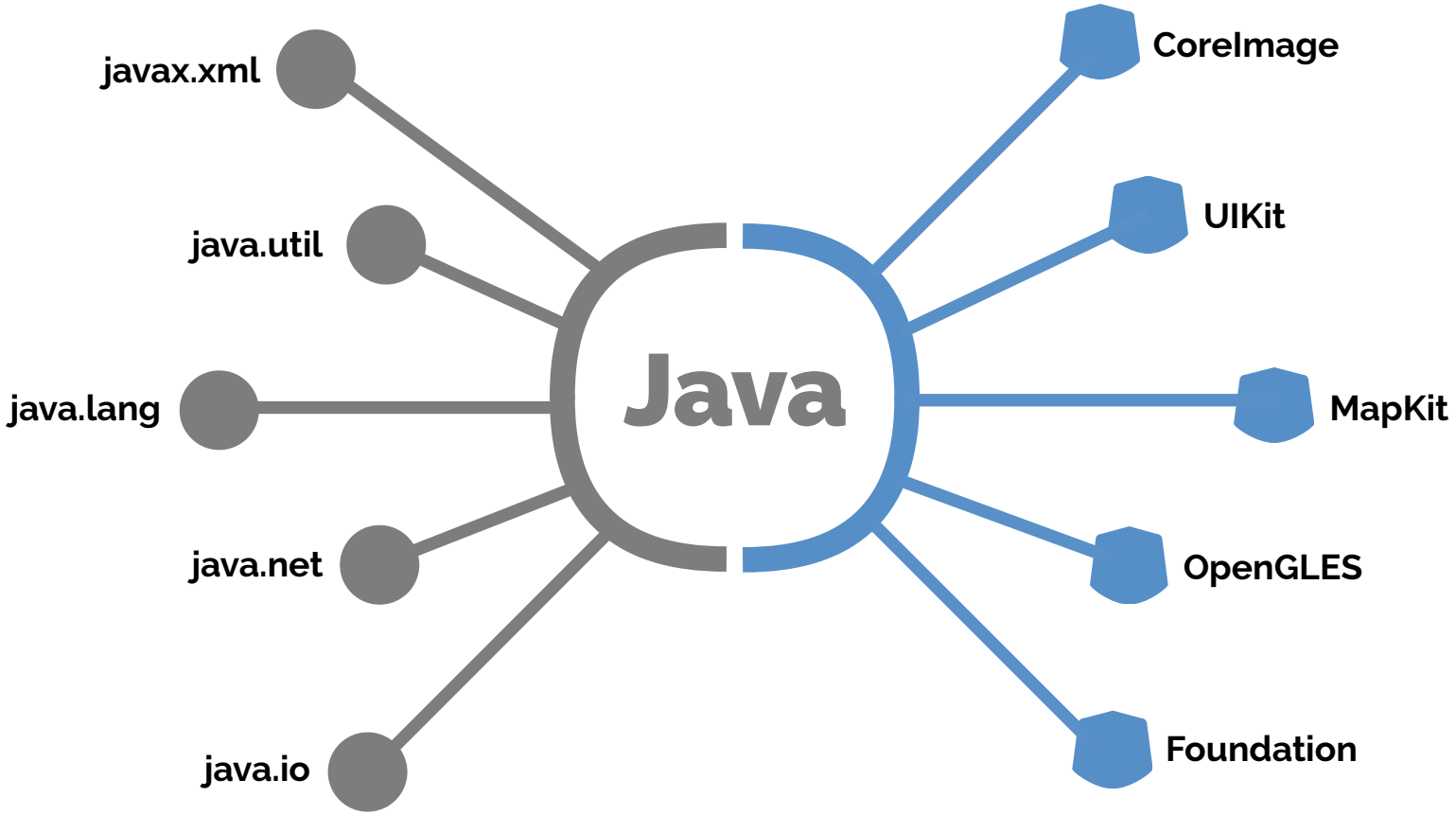
ANDROID


javax.xml
java.util
java.lang
java.net
java.io
Java
Media
NFC
Bluetooth
RenderScript
ActionBar

iOS

100%

Native API Coverage



iOS

100%

Native API Coverage

```
public MyViewController () {
    UIView view = getView();

    // Setup background.
    UIImageView background = new UIImageView(UIImage.create("Background.png"));
    background.setFrame(UIScreen.getMainScreen().getApplicationFrame());
    view.addSubview(background);

    // Setup textfield.
    textField = new UITextField(new CGRect(44, 32, 232, 31));
    textField.setBorderStyle(UITextBorderStyle.RoundedRect);
    textField.setPlaceholder("Hello, World!");
    textField.setClearsOnBeginEditing(true);
    textField.setKeyboardType(UIKeyboardType.ASCIICapable);
    textField.setReturnKeyType(UIReturnKeyType.Done);
```

iOS

100%

Native API Coverage

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```

3RD PARTY JAR SUPPORT

Full support for third party JARs via

Gradle

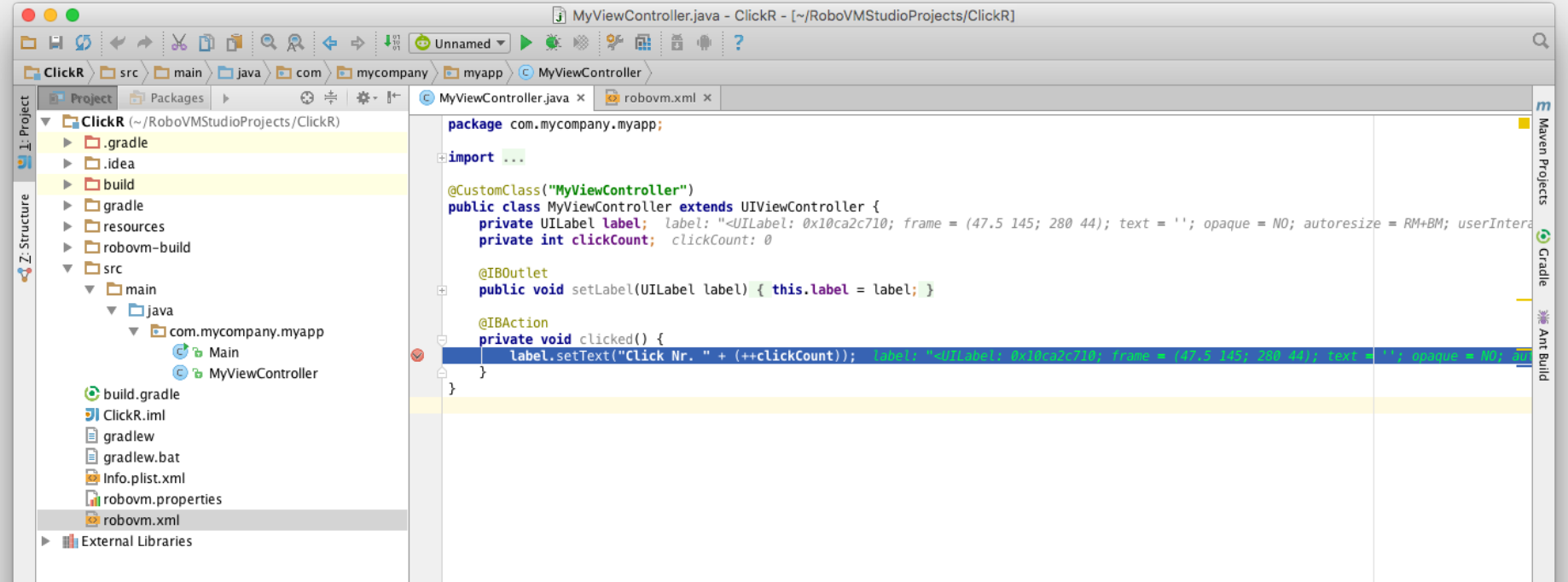
Maven

```
dependencies {
    compile 'com.squareup.retrofit:retrofit:1.9.0'
}
```

FULL IDE INTEGRATION

Eclipse

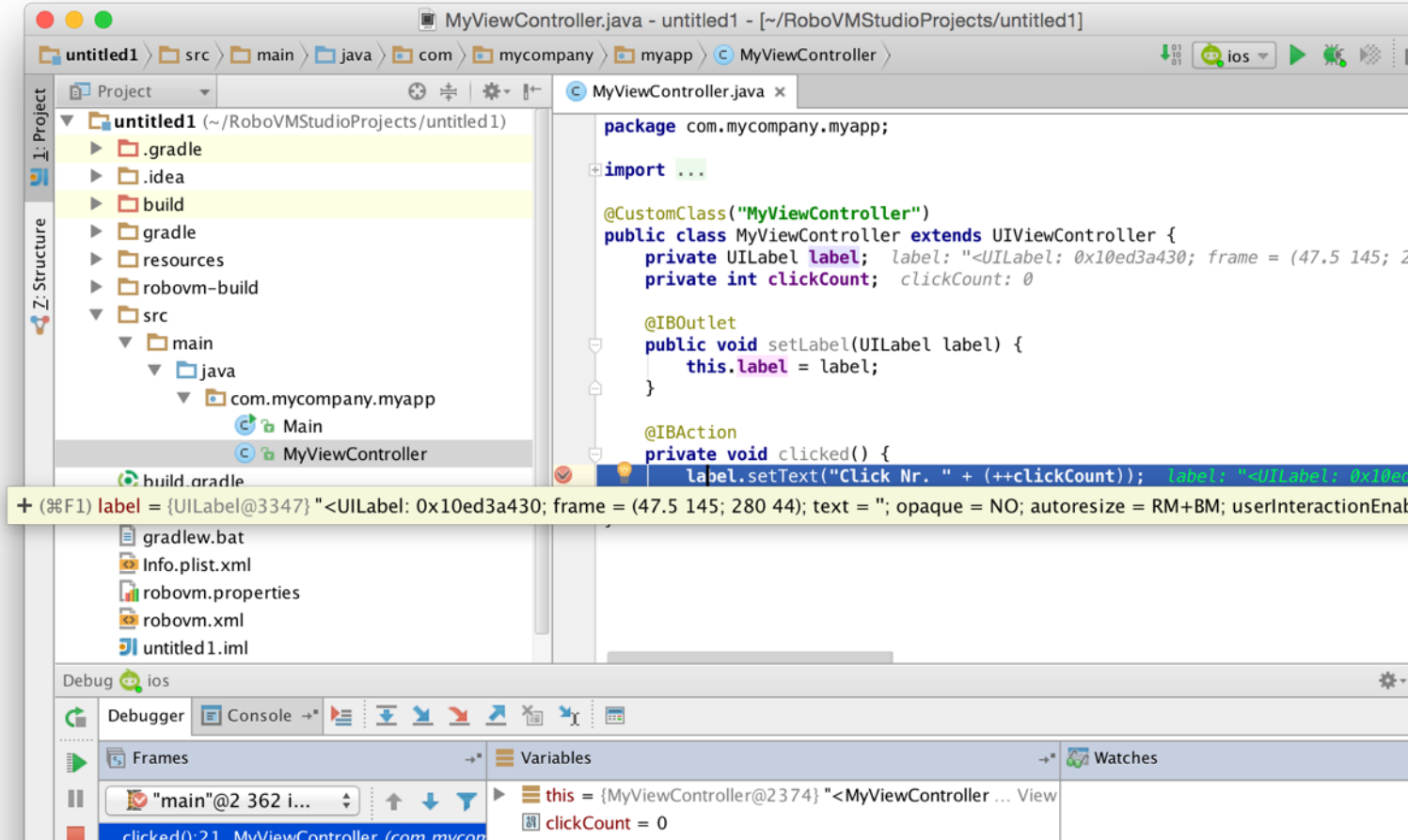
IntelliJ



DEBUGGING

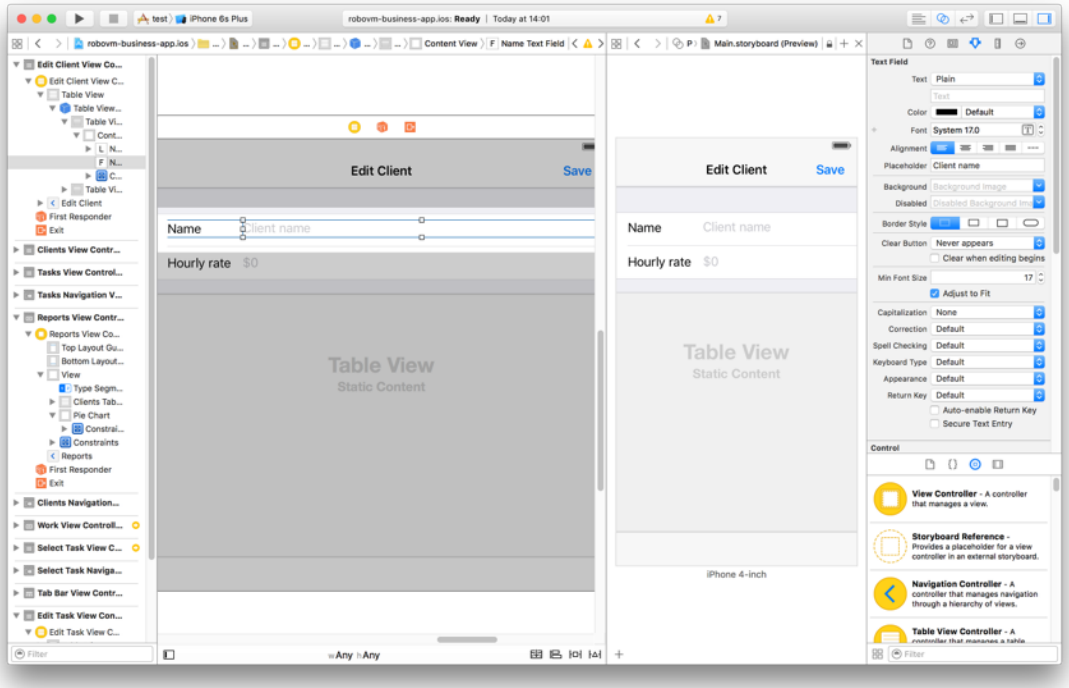
In **Simulator** and on **Device**

Full support for JDWP debugging via IDE

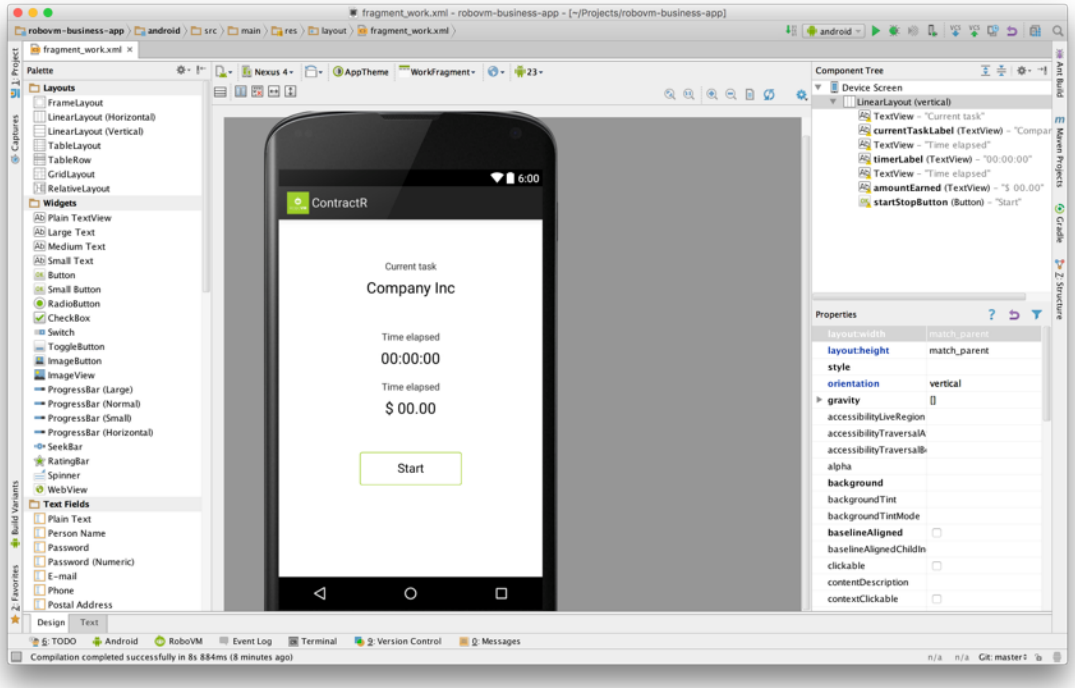


UI DESIGN

Full integration with Interface Builder



Xcode Interface Builder



Android Studio Designer

PATH TO JAVA 8

JAVA 8 COMPILER (COMPLETED)

- ✓ Lambdas
- ✓ Default Methods

DEFAULT METHODS

Out of the box

```
public interface ContractRComponent {
    void inject(ClientsViewController controller);

    default void inject(Object o) {
        ...
    }
}
```

JAVA 8 LAMBDAS

Out of the Box

Builtin support for Java 8 lambdas

Use retrolambda for Android specific code

```
DispatchQueue.getMainQueue().async(() -> {
    vc.dismissViewController(true, () -> update());
});
```

```
plugins {
    id "me.tatarka.retrolambda" version "3.2.2"
}
android {
    compileOptions {
        sourceCompatibility JavaVersion.VERSION_1_8
        targetCompatibility JavaVersion.VERSION_1_8
    }
}
```

PATH TO JAVA 8

JAVA 8 COMPILER (COMPLETED)

- ✓ Lambas
- ✓ Default Methods

MAC PORT

- ✓ Bootstrapping
- libjvm (⅓ complete)
- Java 8 APIs (streams, et al)

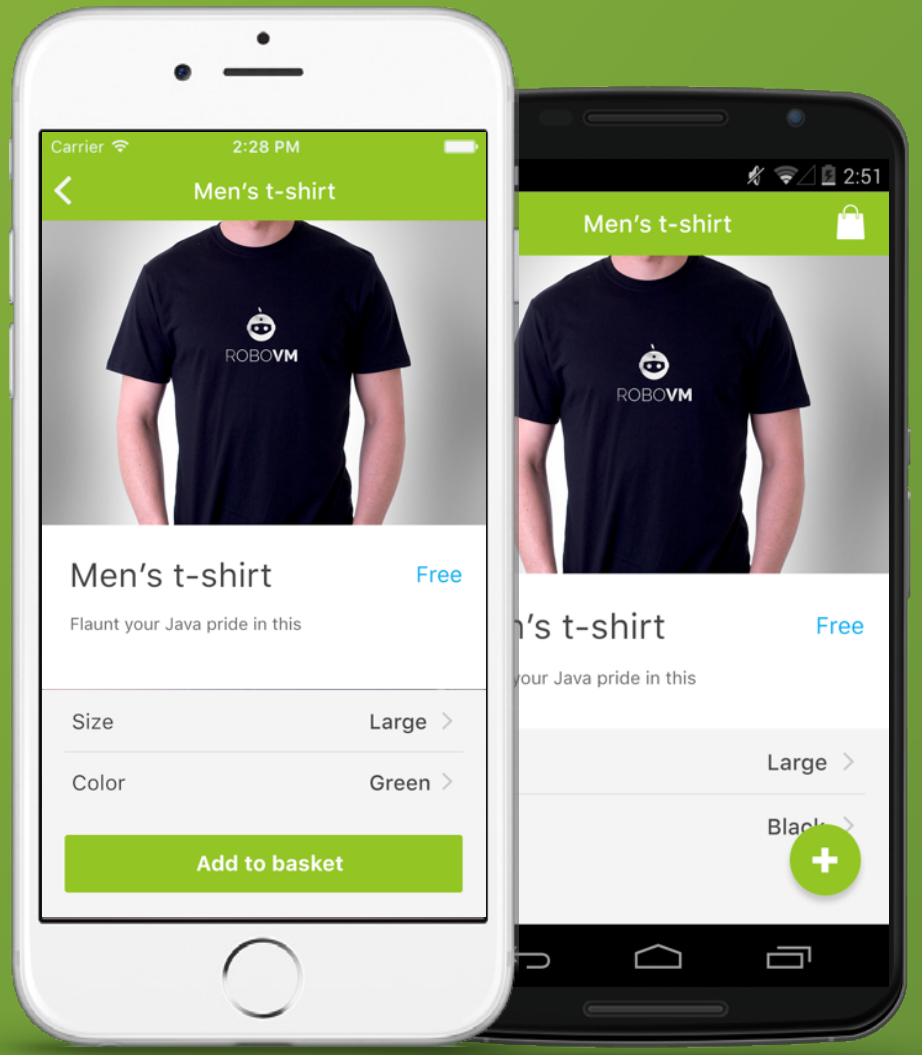
IOS PORT

- iOS JNI Port
- libjvm

DEMO

Run a RoboVM app.
Get a free RoboVM shirt.

iOS and Android apps
100% native 100% Java



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