

Mobile Development

Lecture 1: Introduction

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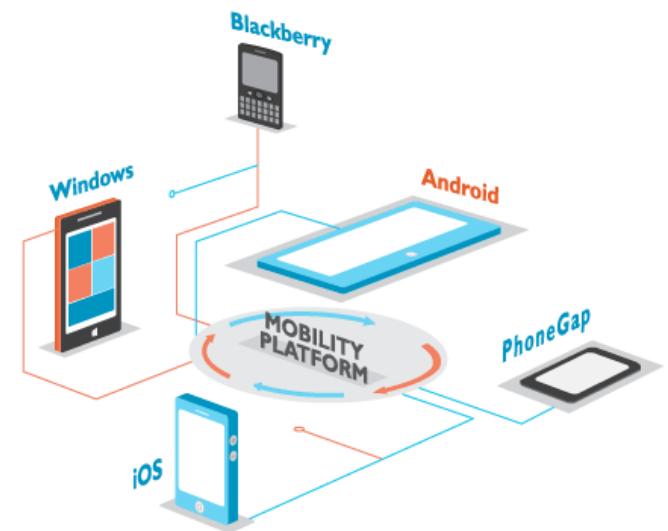


A Little About Me

- *Faculty of Computer and Informatics*
 - ◆ Suez Canal University
 - ◆ Computer Science Department
- *PhD in CS from Bonn University Germany*
 - ◆ 2012
 - ◆ Distributed Systems
- *Contact Info:*
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Course Objectives

- This course will teach fundamental programming principles with a focus on the mobile environment
- *Students should already have a familiarity with Java, an understanding of basic OOP, studied basic algorithms and data structures.*



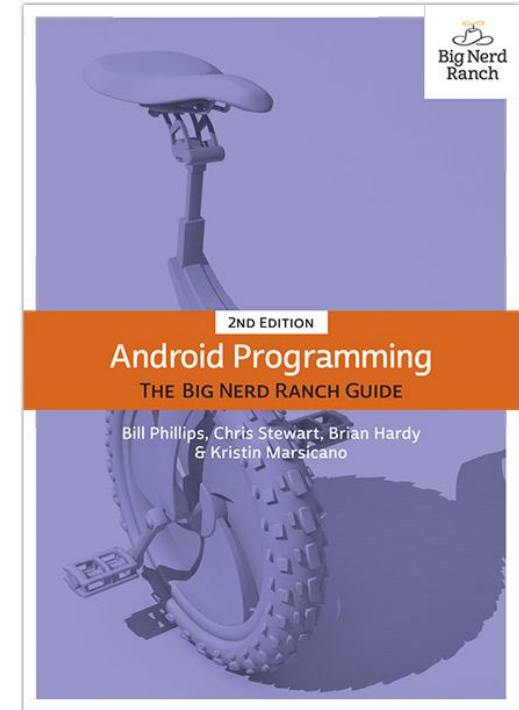
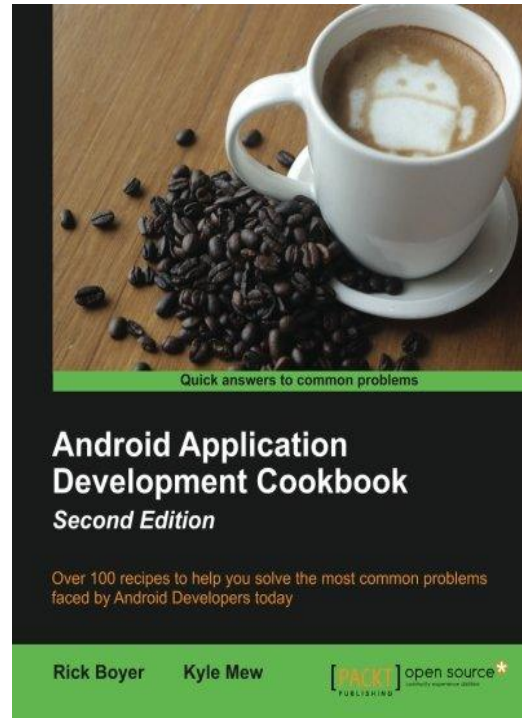
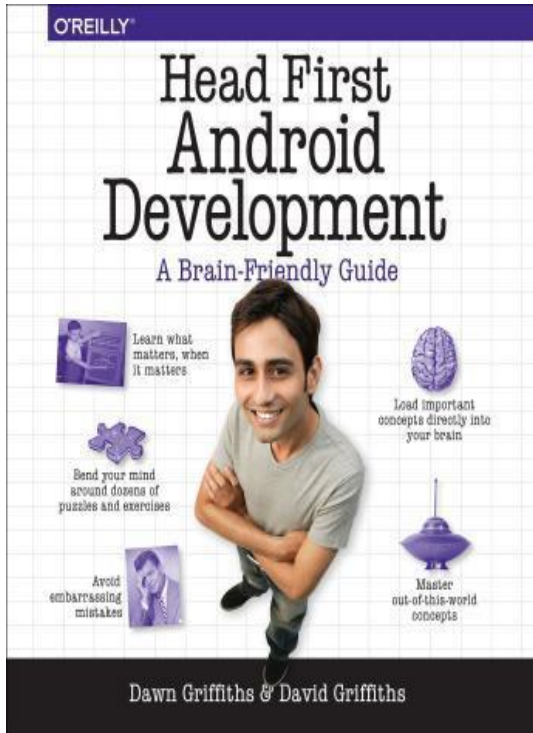
Be a Falcon



RESPECT
IS THE KEY



Course Books



- **Online Documentation**
- **Stack Overflow**

Course Evaluation

- 10% Quiz
- 30% Midterm Exam
- 10% 15-min Oral Presentations (Every week one group)
- 35% Final Written Exam
- 15% Lab Project
- *Divide yourself into groups*
 - ◆ ? per group (**Must next week !!!!!!!!!!!**)
 - ◆ **Determine your project topic**

Rules !!



Presentation Topics

1. **Mobile App Development Life Cycle**
2. **Mobile UX Best Practices (Design Tips)**
3. **PhoneGap**
4. ***Xamarin: Mobile App Development***
5. ***NativeScript***
6. **React Native**
7. ***Version Control (Git)***

Mobile Development?

Native



- Rich user experience
- Platform specific
- Proven path for mobile apps

Hybrid



- App-like experience
- Leverages device capabilities
- Multiple platforms

HTML5



- Fast development cycles
- Cross-platform
- Instant updates

Native vs. Hybrid

Native

More Device Specific Features

No Code Portability

Advanced GUI Experience

High Development Cost

Better Performance

Access to device hardware

Hybrid

Less Device Specific Features

High Code Portability

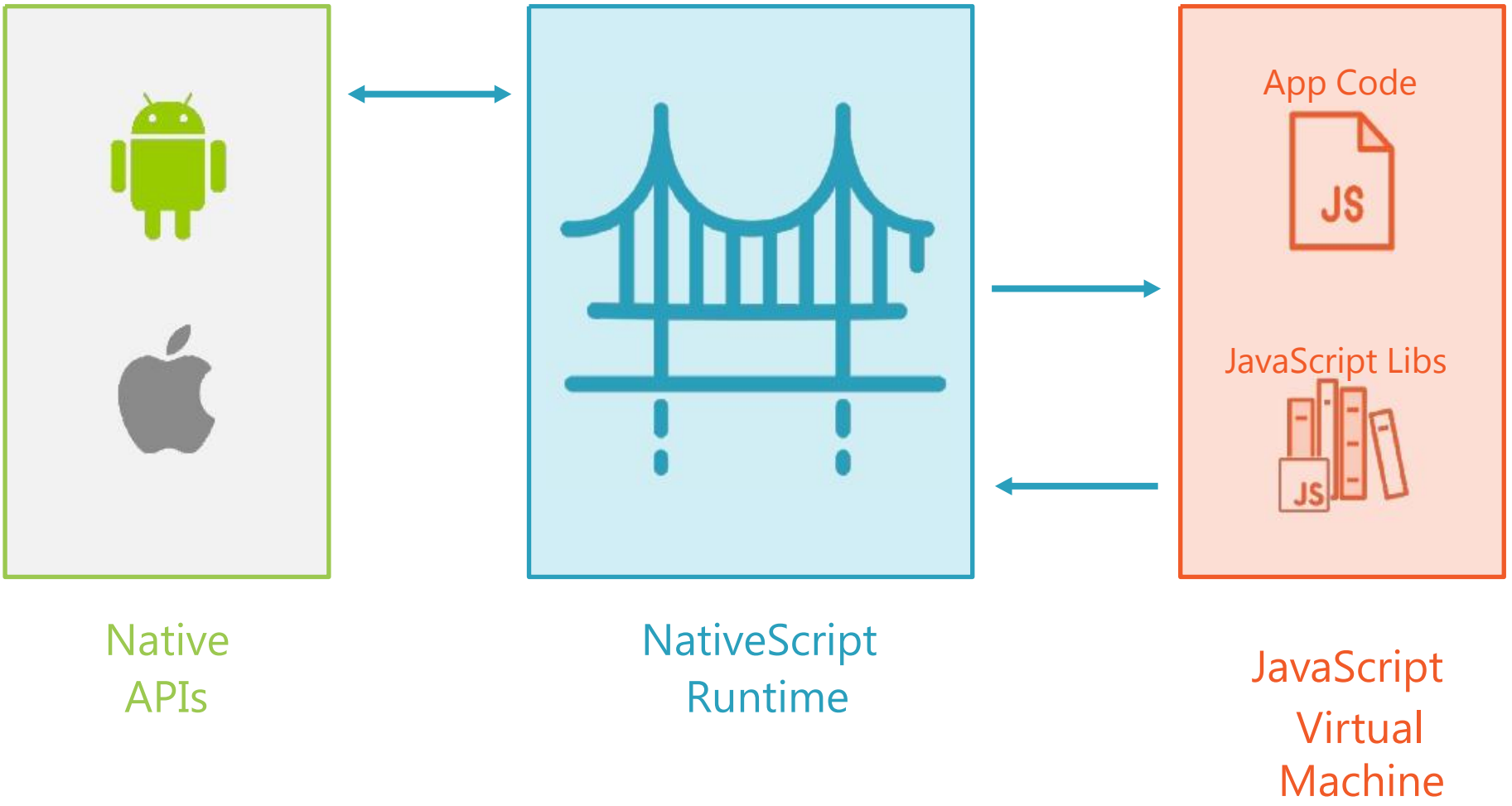
Moderate GUI Experience

Moderate Development Cost

Average Performance

Moderate access to device hardware

NativeScript



Mean Stack (Senior Web Dev.)



Mongo DB
(database system)



Express
(back-end web
framework)



Angular.js
(front-end
framework)



Node.js
(back-end runtime
environment)

NativeScript = Cost Reduction



Poll Questions?

- Which direction you prefer?
 - ◆ Android
 - ◆ Nativescript
- How many Students knows Javascript / Typescript?
- How many Students knows Java?
- Any mobile developers here 😊