Advanced App Development

Hybrid Development

Gerralt Gottemaker

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What is Hybrid Development?

- Native container, running HTML, JS and CSS
- Using native Device APIs through JS
  - Camera
  - Filesystem
  - …
- Built using modern frontend frameworks
- Ran on multiple mobile Operating Systems

Source: Medium.com

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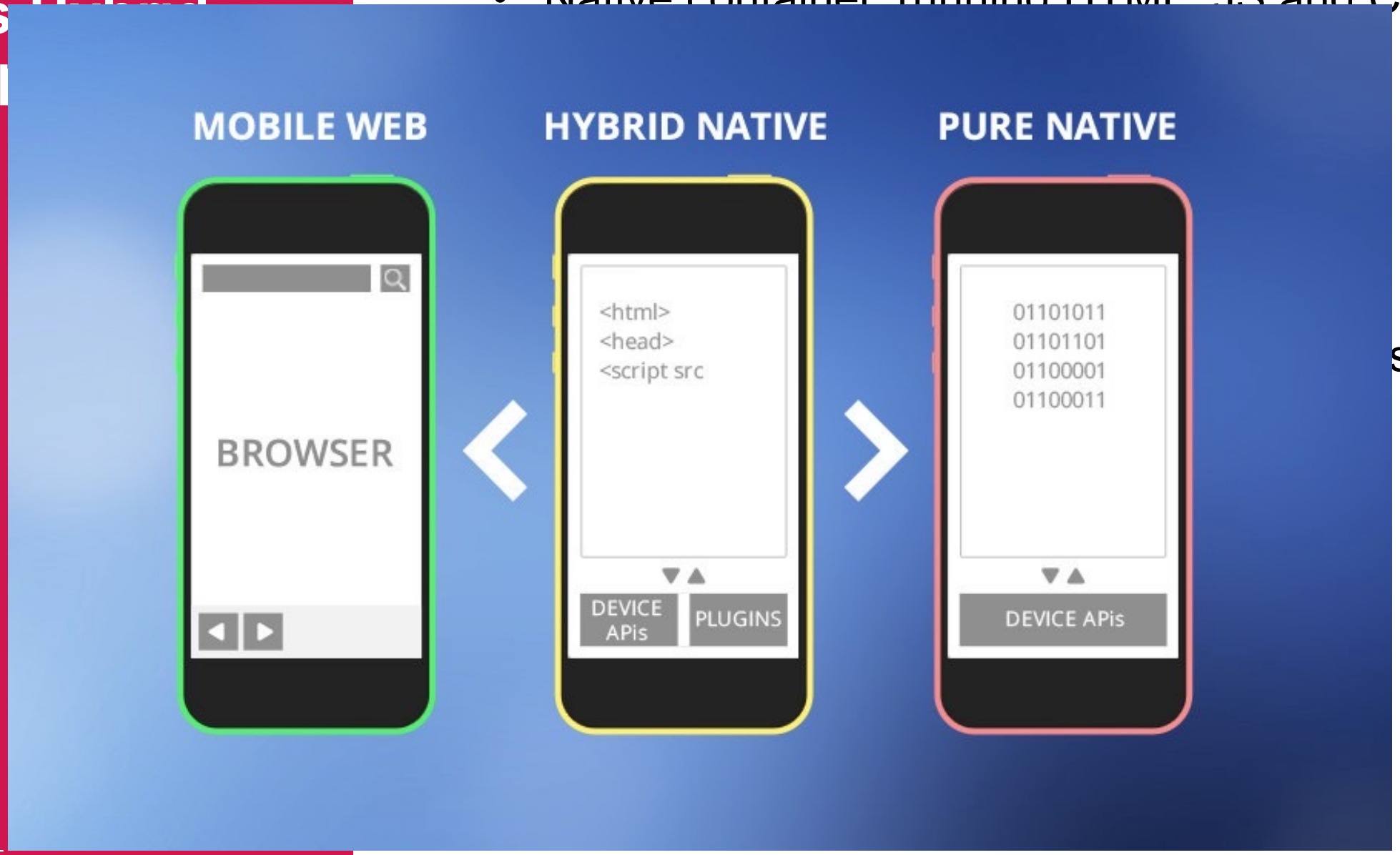
What is Hybrid Develop

- Native container running HTML, JS and CSS



Source: Medium.com

Mobile OS

Focus

- We focus on Android and iOS. Why?

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Mobile OS

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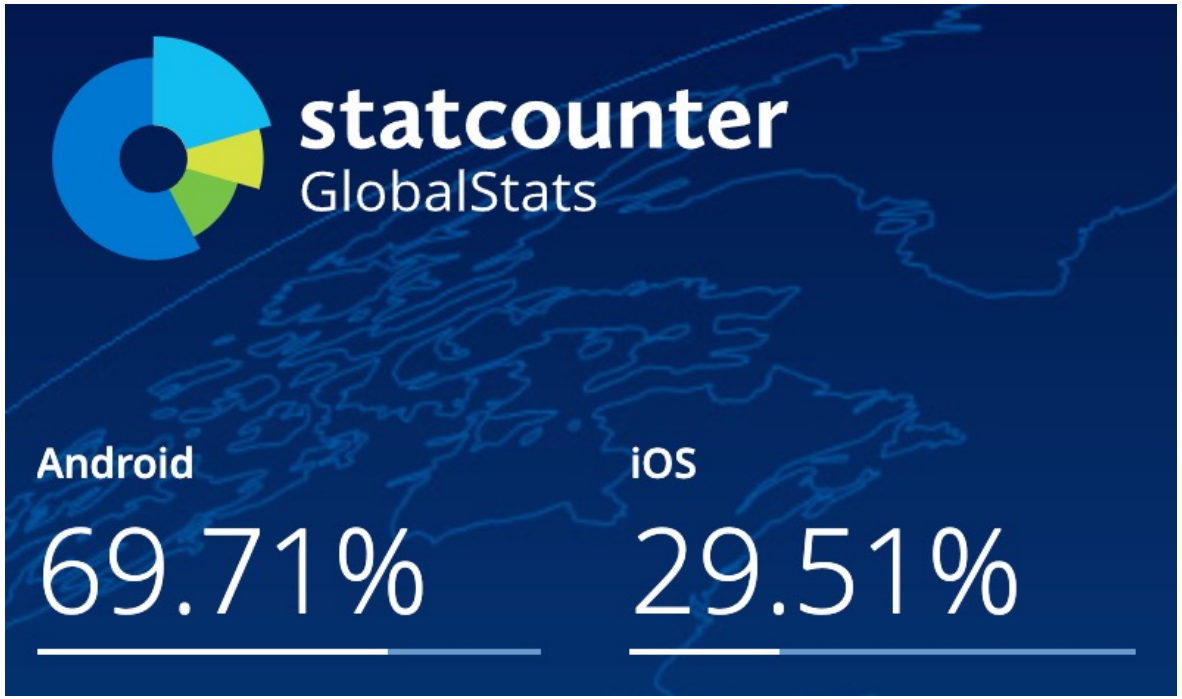

(That's a cumulative market share of 99,22%!)

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“Hybrid Apps are slow!”

Define “slow”!

- Hybrid apps will never be as fast as native apps, that’s **true**
- Hybrid apps are slow is definitely **false** though!
  - Google: V8
  - Apple: JavaScriptCore
- On an average base, the speed is more than good enough

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Course overview

What are we going to do?

Two assignments:

- Research & Prototyping
  - 40% of your grade
  - Week 1 – 3
  - Hand in before Monday of week 4, 9:00 for extra feedback!
- Design & Implementation
  - 60% of your grade
  - Week 4 – 8

Final deadline both assignments: Week 9, 9:00

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Assignment 1: Research & Prototyping

Phase 1

1. Read the AAD research method
2. Compile a (long)list of hybrid frameworks
3. Compile a list of criteria which are important to you
    1. Explain each criteria in your documentation
    2. Justify why a criteria is important to you
    3. (Give each criteria a weight to differentiate in importance)
4. Rate each framework on each criteria
5. Generate an overview and conclusion

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Assignment 1: Research & Prototyping

Phase 2 and phase 3

Twice:

1. Implement the party planner case
2. Keep track of points of interest
3. Document those points of interest

Once:

4. Draw a final conclusion, based on your phase 1 criteria and phase 2 findings

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Assignment 2: Design & Implementation

Plan and design before you start!

1. Check the mandatory requirements
2. Add your own user stories to them
3. **Validate these with me before starting**
4. Plan your work, create repos, create documents
5. Start working
6. Test your application to validate that it's complete and robust.

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