

# CS47: Cross-Platform Mobile Development

## Lecture 1A: Introductions and Syllabus

James Landay  
Abdallah AbuHashem  
Tiffany Manuel  
Cisco Vlahakis  
Vy Mai

<https://cs47.stanford.edu>

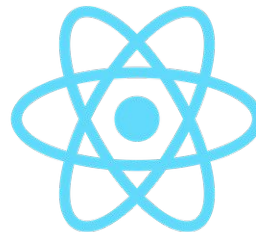


cs47-fall19.slack.com

Fall 2019

# Overview for today

- Logistics and syllabus
- Introduction to cross-platform mobile development and React Native
- React Native flow demo
- Assignment 1 overview
- Exit ticket



# Who are we?



**Prof. James Landay**  
Faculty Advisor



**Abdallah AbuHashem**  
Co-instructor



**Vy Mai**  
Co-instructor



**Tiffany Manuel**  
Co-instructor



**Cisco Vlahakis**  
Co-instructor

# Logistics

- Class Time: TuTh, 10:30 - 11:50 am
- Credit/no credit only
- Unit count: 2. Expected workload: 4 - 7 hrs/wk
- Prerequisites
  - CS 106 A/B
- Attendance is **required** to all lectures in order to pass.
  - Students are allowed **up to 2 absences**. The permission of the instructor must be obtained in advance.
  - Further absences must be approved in advance by the faculty sponsor, Professor James Landay ([landay@stanford.edu](mailto:landay@stanford.edu))

# Logistics

- Grading
  - All assignments have to be turned in to pass the class.
- Assignments
  - 4 Assignments. Starting from today, with setup, and finishing on week 6.
  - Assignments are designed to solidify each week material understanding within the 4-7 hrs/wk
- Final Project
  - Week 5. Project Idea Writeup. You will propose an idea for an application to build.
  - Weeks 6-9. You are required to build an app that employs the functionalities you will learn in the class.
  - We will help you with the idea for your final project, but you will have lots of input.
  - Week 10 will be presentations week, where you demo your final project.
  - **CS 147 students:** If you use React Native in your CS 147 final project, you are allowed to count it as your final project for this class.

# Logistics

- Enrollment
  - You must apply to stay in class/join.
  - [Form](#) is on the website.
- Late Days
  - Two 24-Hour Late Days
- Slack
  - Please don't dm us. Ask in #general or make a staff group.

# Contact Info

- Prof. James Landay, [landay@stanford.edu](mailto:landay@stanford.edu)
- Abdallah AbuHashem, [aabuhash@stanford.edu](mailto:aabuhash@stanford.edu)
- Tiffany Manuel, [manuel14@stanford.edu](mailto:manuel14@stanford.edu)
- Cisco Vlahakis, [vlahakis@stanford.edu](mailto:vlahakis@stanford.edu)
- Vy Mai, [ymai2@stanford.edu](mailto:ymai2@stanford.edu)
- You can also email us at [reactnative@cs.stanford.edu](mailto:reactnative@cs.stanford.edu)

# Sharing

- Assignments and lectures will be shared through Slack. To join our Slack team, follow this link: <https://tinyurl.com/cs47slack2019>
- Class website: <https://cs47.stanford.edu>



# Syllabus

- **Part 1: React Native Basics**
  - Weeks 1-4
- **Part 2: Navigation**
  - Weeks 5-6
- **Part 3: From Prototype to App**
  - Weeks 7-10

What is cross-platform mobile development?

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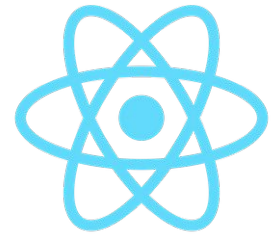
# Approaches

1. Web apps
  - Pros: you just need a browser; pushing updates.
  - Cons: slow performance; limited capabilities.
  - Example: Progressive Web Apps by Google.

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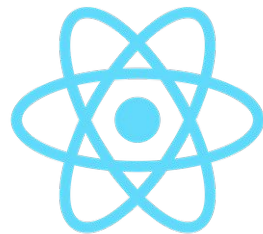
1. Web apps
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  - Cons: slow performance; limited capabilities.
  - Example: Progressive Web Apps by Google.
2. Cross-platform native apps
  - Pros: user does not notice any difference; capabilities similar to non-cross-platform apps.
  - Cons: performance better than web apps but worse than native apps.
  - Example: React Native by Facebook and Flutter by Google.

# React Native



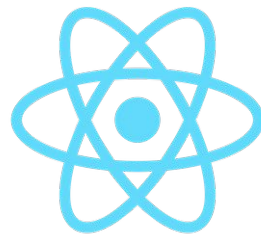
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# React Native

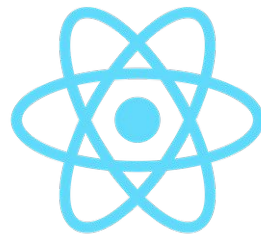
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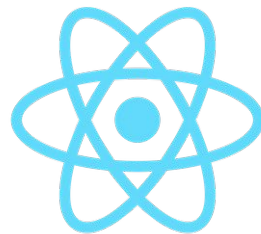
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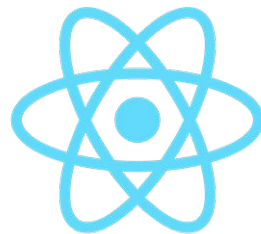
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- Main idea: Engineers won't have to build the same app for iOS and for Android from scratch - reusing the code across each operating system.
- Pros: The community; Faster development; Closer teams; Cross-platform building.
- Cons: It's still improving.



# React Native: Why that much faith?

- Cross-platform saves the companies a lot of resources.
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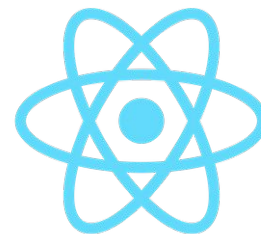


Demo

[Getting Started with Expo](#)

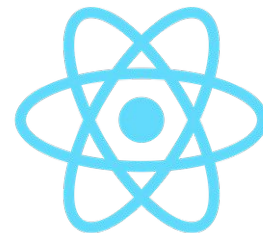
# Assignment 1

- Released today.
- Due next Tuesday.
- Submission: Send us a screenshot of the running simulator, or show up on Monday with your bugs.



# Exit Ticket

- On an index card, write your name, year, major and minor. Tell us why you are taking this class, and what's a thing you want to learn by the end of the class.





## Office Hours

OH start on week 2. Email us directly if you're not available at these times

### **Abdallah AbuHashem**

Monday (12-1 PM) @ Huang Basement

By appointment

### **Vy Mai**

Tuesday (3-4 PM) @ Old Union

By appointment

### **Cisco Vlahakis**

Wednesday (8-9 PM) @ Huang Basement

By appointment

### **Tiffany Manuel**

Thursday (2-3 PM) @ Huang Basement

By appointment

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