LunarLincoln

VandvHacks 2015

HOW TO BUILD EPIC S#!%

MOBILE APP DEVELOPMENT

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Why Build Apps?

- The App Store & Google Play make publishing an app to hundreds of millions of customers pretty easy
- Take advantage of cutting edge computers that almost everyone carries around in their pockets
- Shipping is the best

CaseStudy: CaseCollage

CaseCollage lets you add your own personality and design to the new iPhone 5c case. Use the case holes as frames for your artwork, friends, and interests. Take your dots to a new dimension when you create and print your own custom cases.

Getting Started
How do you turn an idea into a great app?
GETTING STARTED

Build your Team

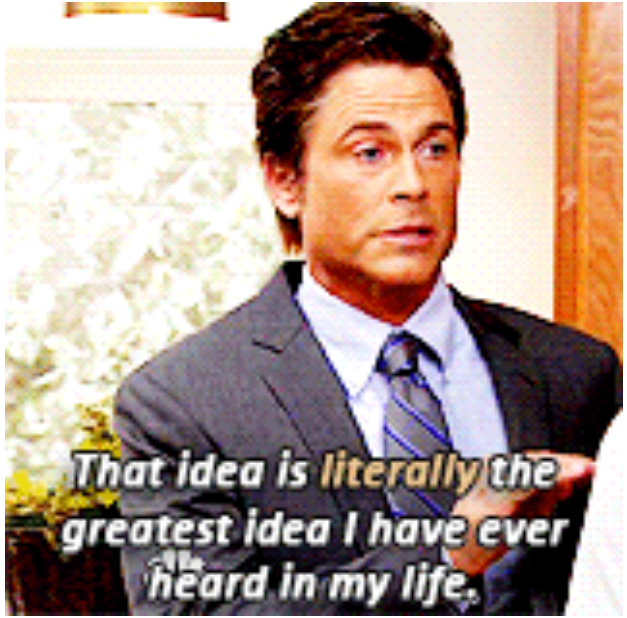
- Who do you need?
  - Native App Developer
  - Designer
  - Marketer
  - Web Developer (Backend/Frontend)

Build your Team

- Who did CaseCollage have?
  - Native App Developer (Wiley)
  - Designer/Marketer (Jennifer)
  - Two people with rusty html skills (Wiley & Jennifer)

Come up with an idea

- What makes a good idea/app?
  - Does it solve a problem?
  - Does it accomplish a task?
  - Is it fun?



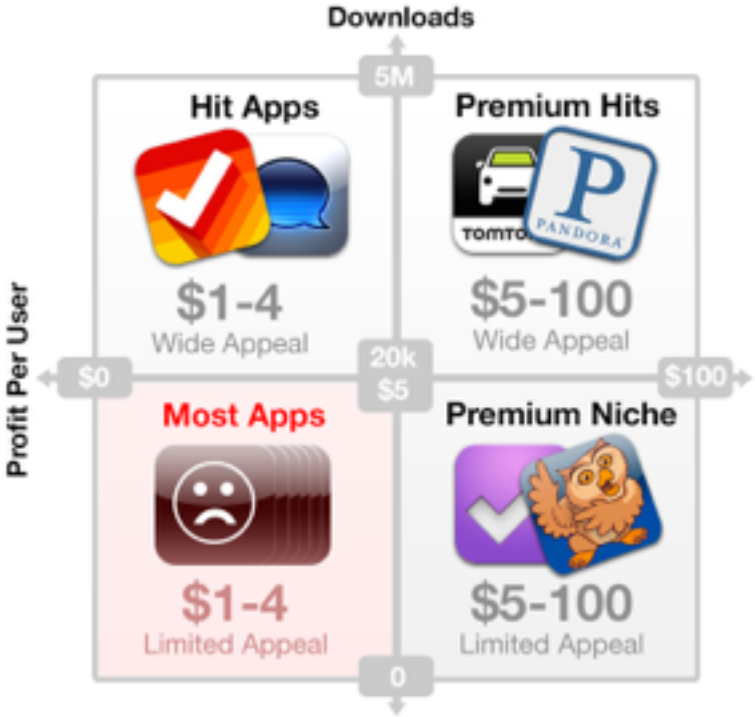
A good app is one people will **use** and can **make money**

How do you make money?

- Build an app that is unique (or at least stands out from the crowd)
- Build an app that leverages new technology
- Build an app that has more character than the competition

How do you make money?

- Find your happy quadrant



Don’t forget

- A good app idea must be one that you're passionate about
  - Have fun! Make sure you're building something you can work on for a long time because the initial shine will wear off well before you've finished

You have your perfect baby app idea.

NOW WHAT?

Come up with an elevator pitch

- An elevator pitch forms your guiding principles
- If its hard to make a concise pitch, or people aren't getting it - maybe the idea needs some work

Refine the idea

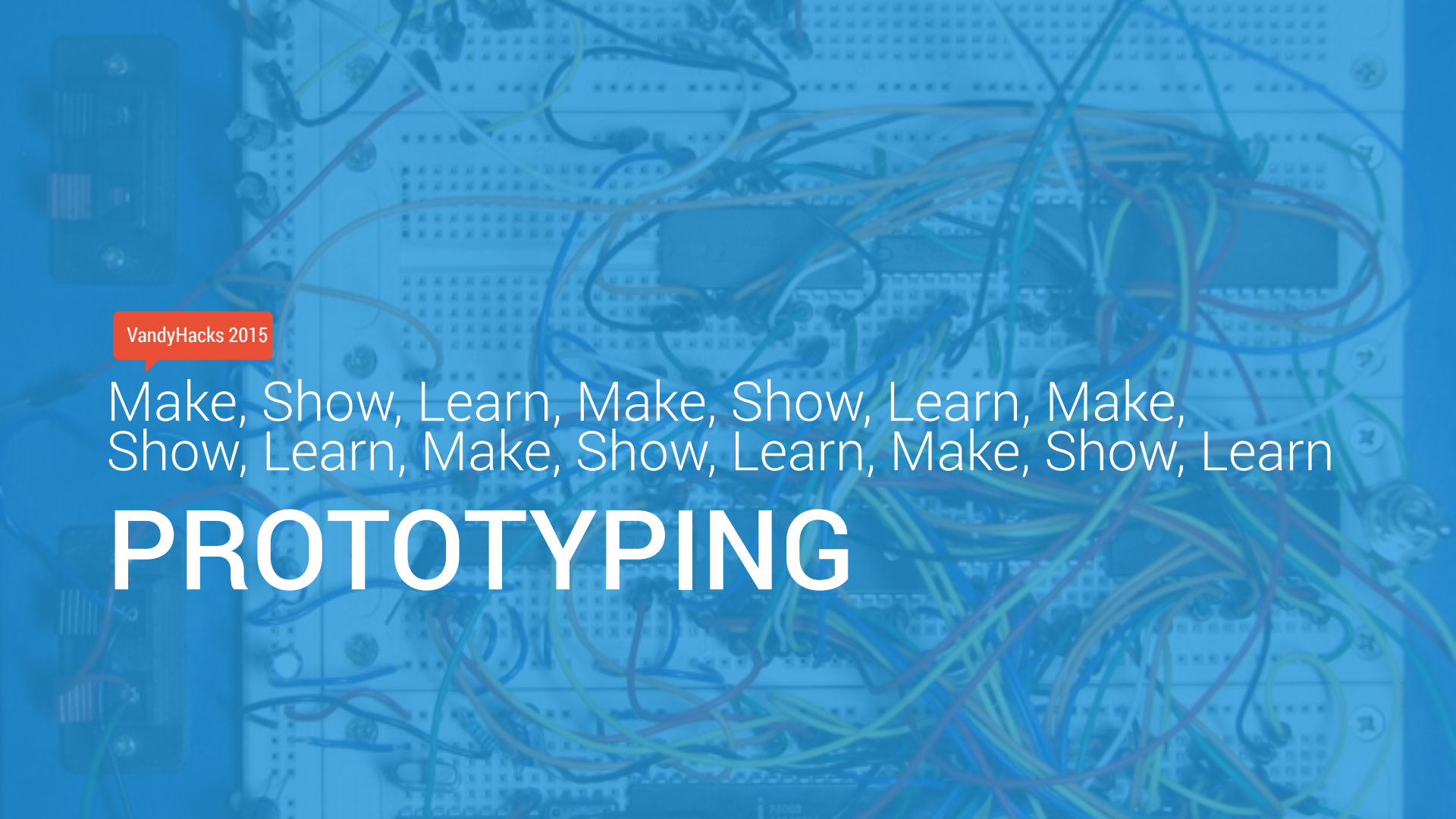
- Come up with a list of features your users might like to see
- Determine who your users are
- Filter the feature list through the audience definition

Research the competition

- Get valuable data from their experiences
- Google it!
- App reviews
- Press

Keep on refining...

- Are you ready yet?
- Is the idea clear?
- Is it needed/fun/new?
- Can you make money?
- Do you want to work on it to death?
- Is there any competition and can you do it better?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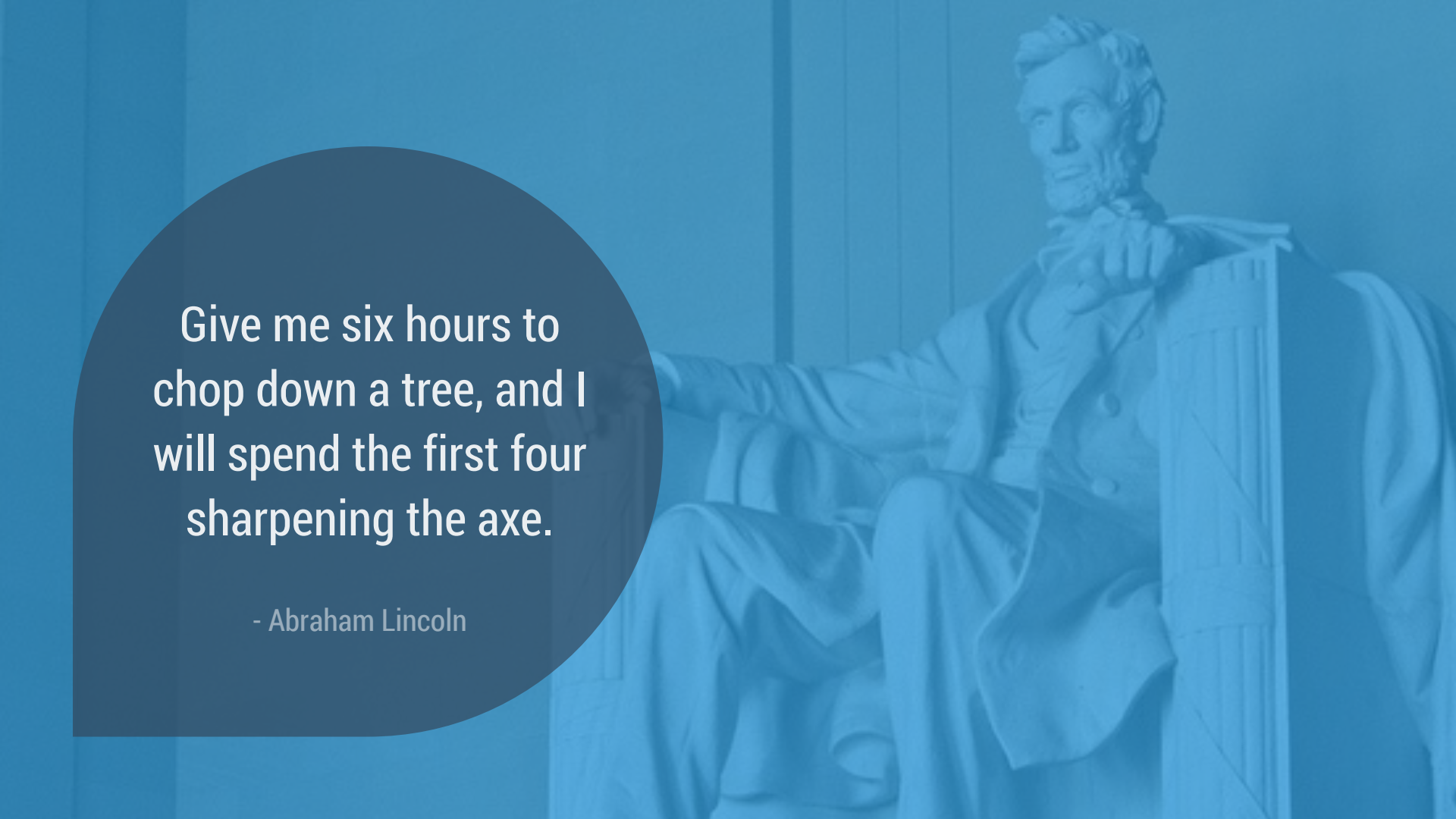
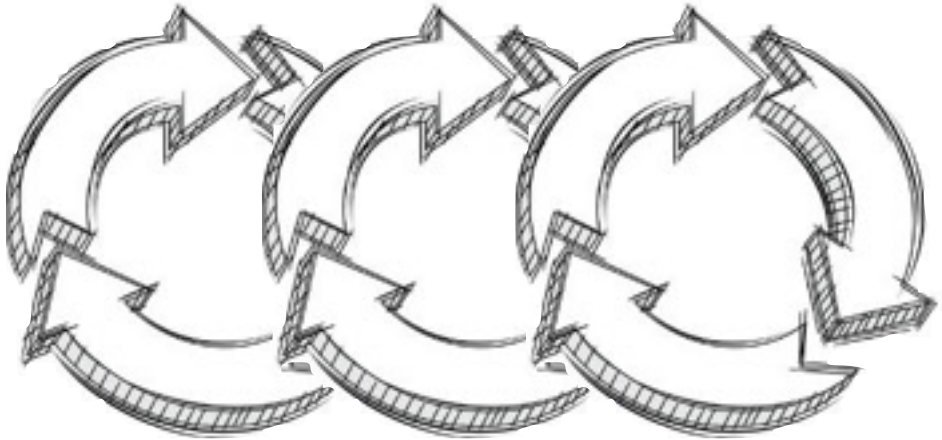
Make, Show, Learn, Make, Show, Learn, Make,
Show, Learn, Make, Show, Learn, Make, Show, Learn
PROTOTYPING


Give me six hours to chop down a tree, and I will spend the first four sharpening the axe.
- Abraham Lincoln

Designing the app through rapid prototyping

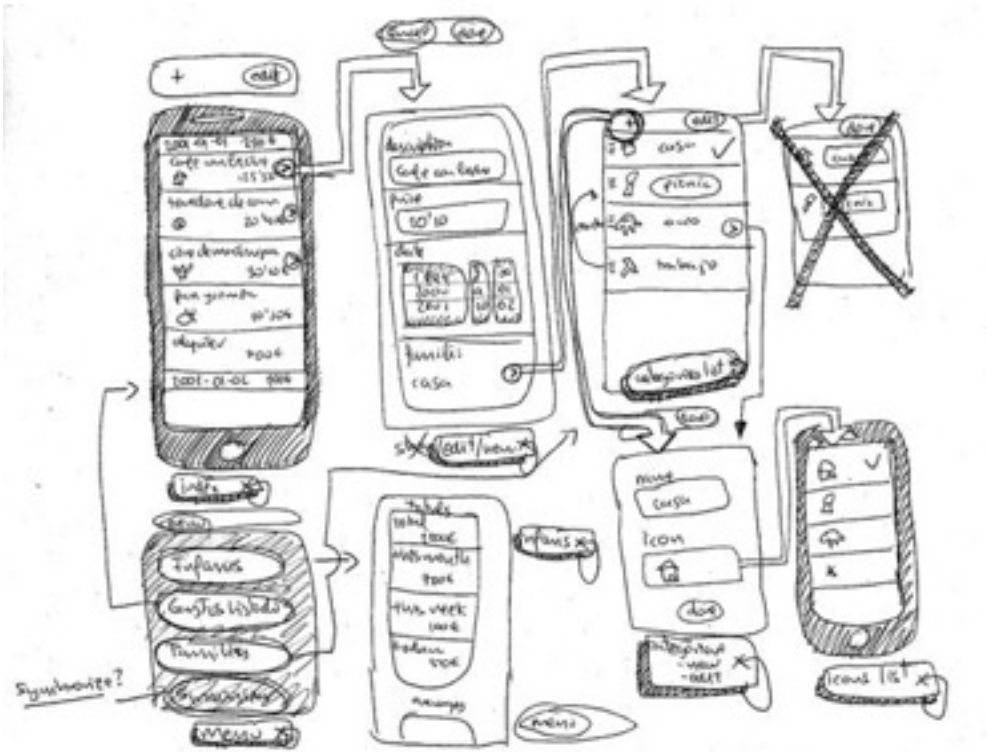
- 3 step iterative process
  - Make
  - Show
  - Learn



- Repeat as necessary until the idea works for your users

Make

- Start with paper
- Sketch out as many different ways you could accomplish your main goals as possible



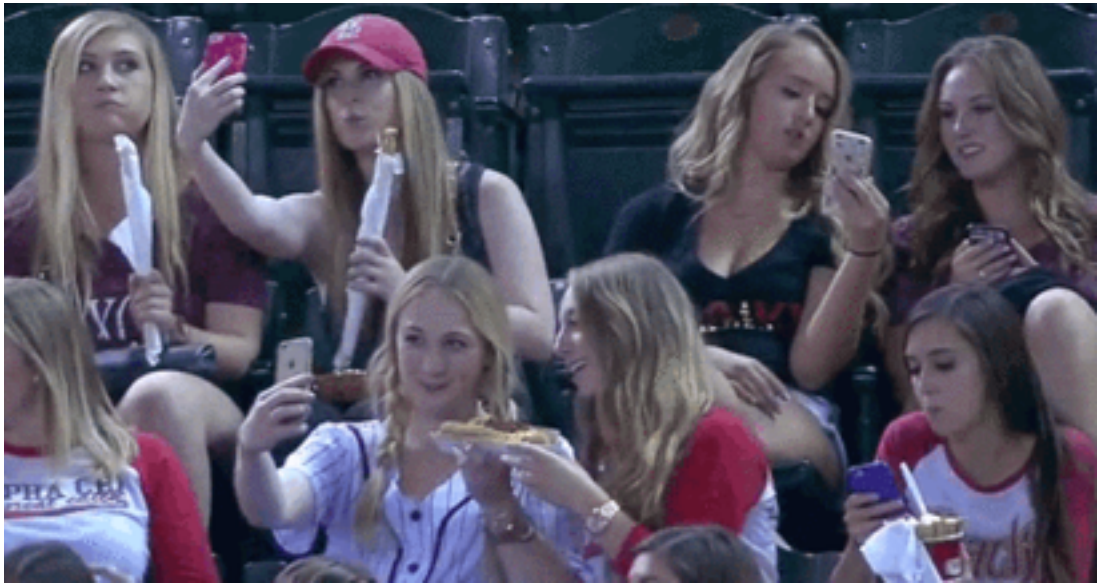
We have free wireframe paper if you need. Find us to grab some.

Make: Basic Wireframing

- Low fidelity
- Helps you understand how a user will accomplish their goals with the app
- Helps identify any places a user might get stuck or experience friction

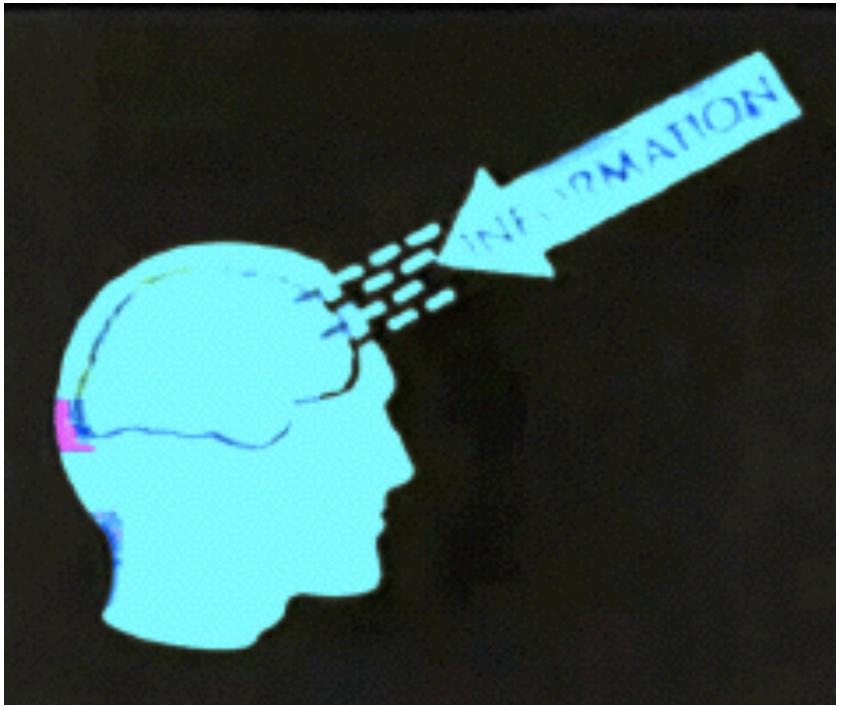
Show

- Show your friends, family, anyone who will listen
- Ask them unbiased questions



Learn

- Take the feedback you got and analyze it
- Come up with a few ways to make your app better



Repeat

- Do this over and over again, adding a bit more realism each time until you have a great prototype

Design

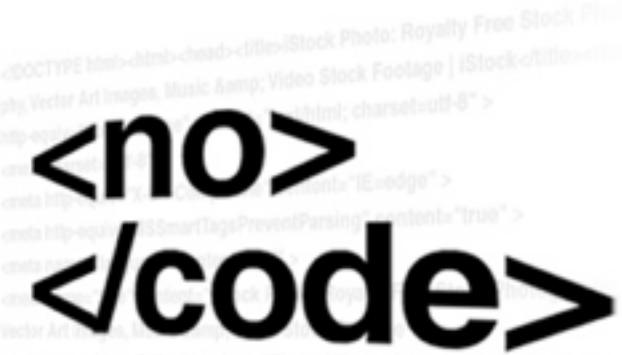
- When your wireframes are complete you're now ready to add design.
- Simple design can consist of a selected color palette, a custom font, and nice icons.
- Use tools such as Sketch or Creative Suite for mock-ups and artwork

Advanced Prototyping

- Make it more real with digital prototyping
  - Keynote
  - InVision
  - Storyboard
- https://medium.com/@wixelhq/streamlining-the-design-process-user-flow-to-final-design-using-sketch-ba71d2355bf9

Key Prototyping Tenet

- Avoid writing any actual code
- Keep everything low tech this way changes are easy and not expensive



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Build the brains behind the beauty

ACTUAL CODING

Break it down

- Take your wireframes and break them into tasks
  - “A user can upload a photo”
- Place your tasks into an issue tracker for agile development
  - JIRA
  - Trello

Start building

- Create a repository to host your code
- Try to accomplish something for the user every time you break off a chunk of work
- If you mess up, simply revert your code (you did setup a repository right?)

Committing code to your repository

- Create a new Xcode project
  - Build, run, commit
- Start building first user story
  - Commit
- Start building second user story
  - Commit

Resources for Development

Swift

WWDC Videos

Stanford Video Lecture Series

StackOverflow

NSHipster

Objc.io

Quora

Supercharge your development with libraries (iOS)

- Cocoapods
- AFNetworking
- MagicalRecord
- ReactiveCocoa
- CocoaControls

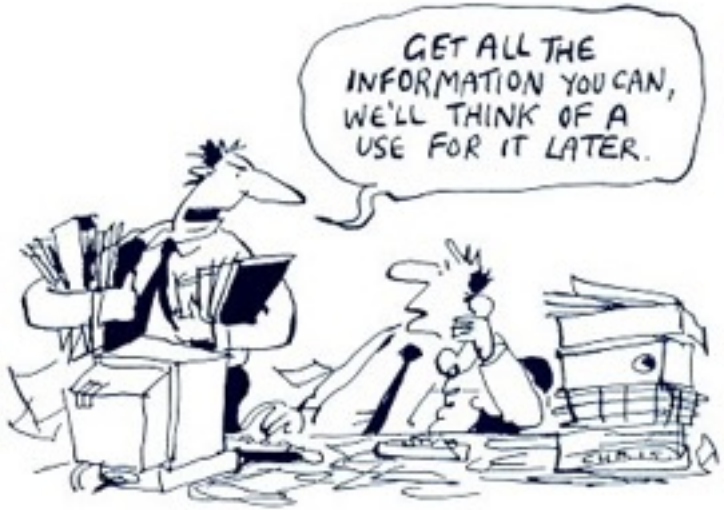
Supercharge your development with libraries (Android)

- Retrofit
- Picasso
- RxAndroid
- Realm
- Android Arsenal

Track and measure your code with analytics

Flurry

Crashlytics



Test your code

- Test it yourself
- Send it to friends
- Use crash reporting to catch crashes

iOS TestFlight

Android Google Play Developer Console

iOS Development
Prepare for Launch
APP PROMOTION

Submit your app for review

- If its Android - hooray your app will be live in a few hours with little to no review
- If its iOS - get ready to wait up to 10 days for review. Be sure to review Apple's stringent App Store policies.

Get ready to announce to the public

- Create an app landing page - make sure to include:
  - Description of your app
  - Prominent link to download your app
  - Video of your app
  - Press Kit

Announce to the public (and the press)

- Gather a list of press peeps who would be interested in your app
  - Have they written about similar apps?
  - Are they writing to your target audience?
- Find common ground and get in touch with each of them

CaseCollage Recap

- Wireframe and user test
- Design with basic UI
- Leverage libraries
- Build marketing website and resources while waiting for app store approval
- Reach out to the press

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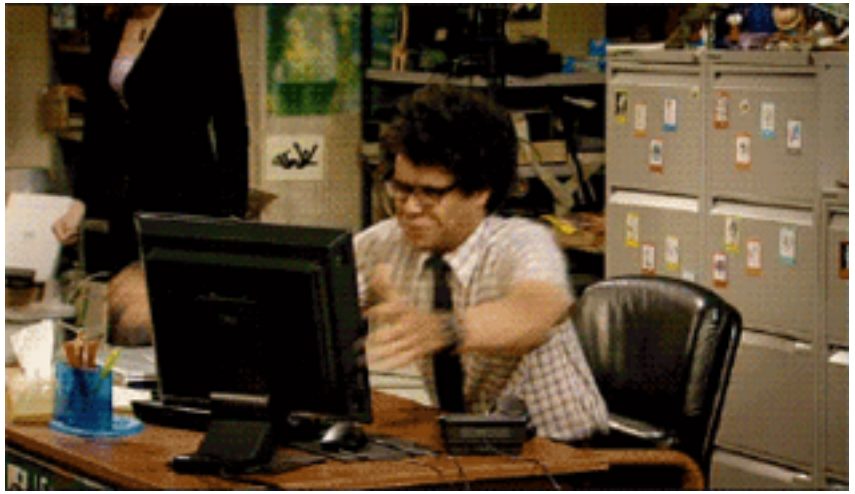
And the results were…

- Articles from Engadget, Gizmodo, SlashGear, TechCrunch, etc.
- 130k YouTube Views
- 25k downloads
- 75k cases created
- 1.4 million items added to collages
- Thousandaires!!! $$$

What to do after the hoopla of launch

- Measure with analytics
- See how the public responds
- Pay (a little) attention to app reviews
- Look at support emails for sources of friction for users



- Apps are like houses, they fall apart if they're not actively maintained

iOS Development
Let's Review
BUILDING AN APP

- Form a great team!
- Do the leg work before you start building
- Build your vision
- Launch your vision and tell people about it
- Profit

SUCCESS

Thanks

Download this presentation and other goodies at:
www.LunarLincoln.com/Vandyhacks