Guide to Teaching Mobile App Concepting
Classroom Presentation

Samsung Mobile App Academy
Mobilize Your Future
Lesson Plan 1

Learning About the Mobile App Industry
Lesson Plan 1-1

What Is an App?
What Is an App?

A self-contained program or piece of software designed to fulfill a particular purpose.

Mobile apps (Android, iOS, Windows Phone)
Web apps (WordPress, Joomla)
Social apps (Facebook, Foursquare)
Game apps (Unity 3D)
Who Is Building Apps?

Every industry has been impacted by the adoption of app technology.

- Start-ups
- Traditional industries

Images: Copyright 2014 Time Warner Cable; Foursquare; Starbucks; Walmart; Ford; Facebook.
Who Is Building Apps?

Start-ups
Young companies are using app technology to compete in markets that traditionally had high overhead:

- Game developers (Zynga, Badland)
- Content providers (Netflix, Hulu, The Huffington Post)
- E-commerce (Amazon, Gilt)

200 million YouTube videos are viewed on mobile devices every day.

Source: http://techcrunch.com/2013/10/17/youtube-goes-mobile/.
Who Is Building Apps?

**Traditional Industries**
Adopting app technology to help existing industries work better:

- Car manufacturers (electronic keys, GPS)
- Utility companies (smart grids, off-site management)
- Retailers (increasing sales)
- Governments (community maintenance and reporting)
- Telecom (mobile messaging, VOIP)
- Education (e-books, online learning)
Who Is Building Apps?

Working in the Industry
The app industry has opportunities for everyone:

- Developers (software, mobile, web)
- Designers (graphics, interaction, information)
- Managers (project, products)
- Industry experts (building tech to make things more efficient)

The number of jobs in mobile software development will increase by 22% in the next eight years (the national average is 11%).

Apps Can Be Built for Audiences in Every Industry.

App developers with interest in outside (nonmobile) industries are uniquely positioned as technology continues to evolve.
Lesson Plan 1-2

Why Are Mobile Apps the Best Apps?
What Will We Be Learning?

Mobile App Development
Building native software (or apps) designed to be deployed and installed on mobile and tablet devices.

• Creative process for taking an idea and turning it into a product

Native app: A native app, written for a specific hardware platform, will always run faster than a web app because there is no translation processing taking place.
Mobile Apps

Mobile apps are the *best* apps because:

- Mobile phones are (almost) always on and they’re (almost) always connected. Users can interact with your software (almost) all of the time from (almost) anywhere.

- Advanced mobile hardware features (cameras, GPS, gyroscope) create immediate out-of-the-box opportunities for enterprising mobile app developers.

- Distribution (Google Play, Amazon App Store) and monetization methods (charging for your app, in-app purchasing) are built and supported by the Mobile SDK provider, allowing the app developer to focus on product and experience.
Lesson Plan 1-3

The 5D Process
1 Discovery
2 Define
3 Design
4 Develop
5 Deploy
Discovery

- Learn everything you can.
- Understand the business.
- Understand the user or audience.
- Understand the technology.
- Know the market.
Discovery

- What is Candy Crush Saga’s biggest competitor?
- How were smartphones an opportunity for Candy Crush Saga?
1994 Shariki by Eugene Alemzhin, developed for DOS

Bejeweled 2001

Bejeweled 2014

Candy Crush Saga

Images: Copyright 2014 King.com Ltd.; PopCap/Oberon Media; Microsoft/Eugene Alemzhin.
Define

- Think through the idea.
- Define user profiles.
- Build user journeys.
- Plan for the unexpected.
- Road maps v1, v2, v3, v4, and v5.

**User journey:**
A user journey is a series of steps (typically 4–12) that represents a scenario in which a user might interact with an app.
Define

- What adjustments to gameplay did Candy Crush Saga make to differentiate itself from Bejeweled?
- Did Candy Crush Saga alter the basic puzzle format of Bejeweled?
- Are there social strategies used to expand the user base?
- How is it monetized?
1960s Board Game Candy Land

Images: Copyright 2014 King.com Ltd.; Hasbro.
Design

• Make design decisions with your user profiles in mind.
• Design is more than just logos and colors. It is responsible for delivering the tone of your product.
• Create the primary screens.

Wireframes:
Screens that show the functionality and interface elements of an app or web page.
Design

• Did Candy Crush Saga have to adjust the game format to successfully target mobile users?
• Based on the design, who do you think is the target user profile for the game?
Develop

- Choose devices and platforms.
- Use the designs and functional specs to build the app.
- Code in a programming language to support those platforms (i.e., Java for Android).
- Test functionality.

Considerations

- Every device has an operating system (OS).
- The device OS dictates the programming or code language needed.
Develop

- What considerations do you think were made in regard to device support?
- Do you think similar conversations happened regarding software support?
- What kinds of devices do you think their user profiles used?
Deploy

- Release a tested version.
- Promote the app and solicit feedback.
- Monitor what people are saying.
- See what works, what breaks.

**Build the Next Version.**

Then Repeat.
Then Repeat.
Then Repeat.
Then Repeat.
Then Repeat.
Lesson Plan 2

Becoming a Creative
Lesson Plan 2-1

Discover the Concept
Hello, Creatives.
Client Brief

Pick one of the client challenges to solve as a team.

• Does your team have more experience or interest with one concept or the other?
• Which of the projects do you think is more important to solve? More fun? More beneficial?
Create an App: Discover

Brainstorm App Concept and Name

Take 30 minutes with your team to come up with your app concept and app name.

- Keep it simple and focused.
- Concept must be original.
- Prepare an elevator pitch for your concept.
The Elevator Pitch

Platform + Name + Client or Target + Problem + Solution

- Does not mention features
- Does not take longer than 30 seconds to say

“We are building a mobile application called PetFindr that helps pet owners find their lost pets using social networks.”

“We are building a mobile application called GetThere that helps frustrated drivers report traffic and road conditions to other drivers using map and location services.”
Present Your App Concept and App Name to the Class

- Elevator pitch
- Three minutes for feedback and Q&A
Lesson Plan 2-2

Define the User Profiles
User Profile

Create fictional characters that you believe are the target for your application.

- These characters have attributes that are representative of your larger target market.
- App features and tone should be built to service the user profiles you create.
- Your project can have several user profiles.

“Sarah is a 33-year-old mother living in Columbus, Ohio. She is happily married to George, age 36, and together they’re raising two boys (Sean, age 7, and Sam, age 6) and two Lab puppies. Sarah has had dogs all her life and after attending a graduate program she now works as a vet at a local pet hospital. While she doesn’t have a lot of time to sit at her desk and use a laptop it is often joked that ‘Sarah is inseparable from her Samsung Galaxy smartphone.’”
User Profile

• Name
• Age
• Gender
• Geographical location
• Education
• Occupation

• Yearly income
• Family structure
• Free-time activities
• Eating and health habits
• Places they frequent

Thirty-four percent of Internet users go online mostly using their phones.

Source: pewinternet.org/fact-sheets/mobile-technology-fact-sheet/.
Create an App: Define

Build Your User Profiles

- Work with your team to design user profiles.
- Ensure the profiles are representative of a larger, scalable audience.

Ask your teacher for help if you get stuck!
Lesson Plan 2-3

Define the User Journeys
User Journey(s)

How will your users interact with your app?

- Map the experience you expect each of your user profiles to have while using your app concept.
- User journeys are NOT wireframes.

Some considerations:

- Do your users need to be online to use your app? If so, how will you handle users who are not connected?
- Does your app require authentication? Terms of use? Parental consent?
- Are there multiple experiences you expect specific user profiles to have?
User Journey(s)

PetFindr: Sarah

One of the family’s puppies has run off. Sarah downloads PetFindr in hopes of retrieving the family pet:

- Launch App
- Internet? (YES/NO)
  - YES: Internet?
    - Internet? (YES/NO)
      - YES: View
        - View: Map/List
      - NO: I Lost My Pet
  - NO: Warning
    - Warning (YES/NO)
      - YES: Create Pet Profile
      - NO: I Found a Pet
        - I Found a Pet (YES/NO)
          - YES: Match?
          - NO: I Lost My Pet
            - I Lost My Pet (YES/NO)
              - YES: Post Pet Profile
              - NO: Local Results View
                - Local Results View (YES/NO)
                  - YES: Post Pet Profile
                  - NO: Browse Results View
                    - Browse Results View (YES/NO)
                      - YES: Pet Owner Contact
                      - NO: I Lost My Pet
Create an App: Define

Build Your User Journey(s)

Draw a user journey that explains how each of your user profiles will use the app.

• Visualize specific requirements.
• Include all screens.
Have you learned anything unexpected about your user profiles?

Do all of your users use the app the same way?
Lesson Plan 2-4

Design Wireframes
Wireframes

How will your users navigate your app?

- Screens that show functionality and interface elements
- Every button and action explained in detail
- All screens are created as wireframes before design and development.
Wireframes

User interface and interaction

- Top/bottom/side navigation
- Buttons and toggles
- Menus
- Tables
- Sliders
- Gestures
- Nested interaction
- Modals

How can you design your app concept to make it easy for users to navigate?

Never use two clicks when one will do. Always reduce friction.
Interface Elements
Wireframes

- **PET PROFILE**
  - **My name is:** (Pet Name)
  - **LOST:** (MM/DD/YY 00:00)
  - **Lost Since:** (___)
  - **Animal Type:**
  - **Breed:**
  - **Fav. Treats:**
  - **Special Needs:**
  - **Message:**
  - **Owner Name:** (First Last)
  - **Owner Address:** (Address)
  - **Owner Phone #:** (Address)
  - **Reward:** (___)
  - **Submit**

- **LOST PETS!**
  - **My name is:** Fluffy
  - **LOST:** (MM/DD/YY 00:00)
  - **My name is:** Cookie
  - **LOST:** (MM/DD/YY 00:00)
  - **My name is:** Rusty
  - **LOST:** (MM/DD/YY 00:00)
  - **My name is:** Honey
  - **LOST:** (MM/DD/YY 00:00)

- **MISSING**
  - **My name is:** (Pet Name)
  - **LOST:** (MM/DD/YY 00:00) near Central Park in New York, NY.
  - **Golden retriever who loves to eat milkbones and play with tennis balls.**
  - **REWARD $100**
  - **Contact Owner:**
  - **FOUND**
Wireframes

PET PROFILE

My name is:
(Pet Name)

LOST: (MM/DD/YY 00:00)
Last Seen: (___)

Animal Type
Breed:
Favorite Treats:
Special Needs:
Message:

Owner Name: (First Last)
Owner Address: (Address)
Owner Phone #: (Address)
Reward: (___)

Submit

Top fields to enter Pet Profile information
Top to post on Lost Pet Bulletin Board

Tap to upload photo
Wireframes

Tap to create a new Lost Pet Profile

Tap for "Map View" of lost pets

Tap to go to Pet Profile

LOST PETS!

{Current Location}

MISSING
My name is: Fluffy
LOST: (MM/DD/YY 00:00)

MISSING
My name is: Cookie
LOST: (MM/DD/YY 00:00)

MISSING
My name is: Rusty
LOST: (MM/DD/YY 00:00)

MISSING
My name is: Honey
LOST: (MM/DD/YY 00:00)
Wireframes

- Tap to create a new Lost Pet
- Tap for "List View" of lost pets
- Tap to go to Pet Profile
Wireframes

Tap to go back to previous screen (Map or List View)

MISSING

My name is:
{Pet Name}

LOST: {MM/DD/YY 00:00} near Central Park in New York, NY.

Golden retriever who loves to eat milkbones and play with tennis balls.

REWARD = $100

Contact Owner:

Tap to report where pet was found or last seen

FOUND
Create an App: Design

Build Your App Wireframes

Draw wireframes that visualize how each of your user profiles will use the app.

- Ensure features and screens work for every user profile.
- Are there opportunities to condense interaction or reduce user friction?
Lesson Plan 2-5

Design Product and Tone
Product Design and Tone

How should a user feel when he or she uses your app?

- Design is more than colors and fonts.
- Do your user profiles present design challenges or considerations?
Create an App: Design

Collect Design and Tone Inspiration

Search for design and tone inspiration for your app concept.

• Ensure design inspiration works for every user profile.
Lesson Plan 2-6

Presenting
Presentation Preparation

Sell the client on your app concept and solution.

Rules:
Everyone must present.
Nine minutes total for the presentation.
Create an App

Presentation Preparation

Finish your elevator pitch, user profiles, user journeys, wireframes, and design inspiration.

• Every team member must present.
• Your team will have nine minutes for presentation and six minutes for Q&A.
Create an App

Present Client App

• Present your app’s user experience and functionality.
• Q&A and instructor feedback.
“There Should Be an App for That”

Getting Your App to v1.0
Lesson Plan 3-1
Assessing App Ideas
What makes a good idea?

- Ideas can come to you at any time: when you’re sleeping, in the shower, when you’re playing.
- Good ideas should fill a need or create a desire.
- Where did social media come from?
- Did we need it or did we learn to desire it?

“You can’t have good ideas unless you’re willing to generate a lot of bad ones. Painters, musicians, entrepreneurs, writers, chiropractors, accountants—we all fail far more than we succeed…but we succeed far more often than people who have no ideas at all.” —Seth Godin

Envision the Final Product

- What does it do?
- How do you interact with it?
- Is it for a single purpose or will it expand in the future?

Work through the steps to get there.
What Is Already in the Market?

- Know your competition.
- Take inspiration from what exists.
- Find a way to be better, faster, smarter.
- Create your own original spin.

Over 1.3 million Android apps are currently available.

Lesson Plan 3-2

Resources and Marketing
Resources You Need

- Time
- People
- Money
Resources You Need

Time

• Are your team members full-time or part-time on the project?
• How much time can your team members dedicate to the project?
• Be realistic. Everything takes more time than you think.
Resources You Need

Building Your Team

• The biggest challenge is finding the right people.
• Pay, trade, or include
  - Pay for the work.
  - Trade for something you can give them.
  - Include them in your business.

Key Roles

• Creative
• Development
• Marketing
• Business management
Resources You Need

Money

• Personal investment
• Client funding
  - Work for hire
• Fund-raising
  - Friends, family
  - Angel investors
  - Shareholders
  - Crowdsourced investments like Kickstarter
• Define your monetization strategy.

It costs $25 to register for a Google Play distribution license.

Marketing Your App

- What is the brand personality?
- What differentiates this from similar apps?
- Who is it for?
- Why will they use it?

Target Audience:
A defined set of users that an app targets to build its optimal user base.