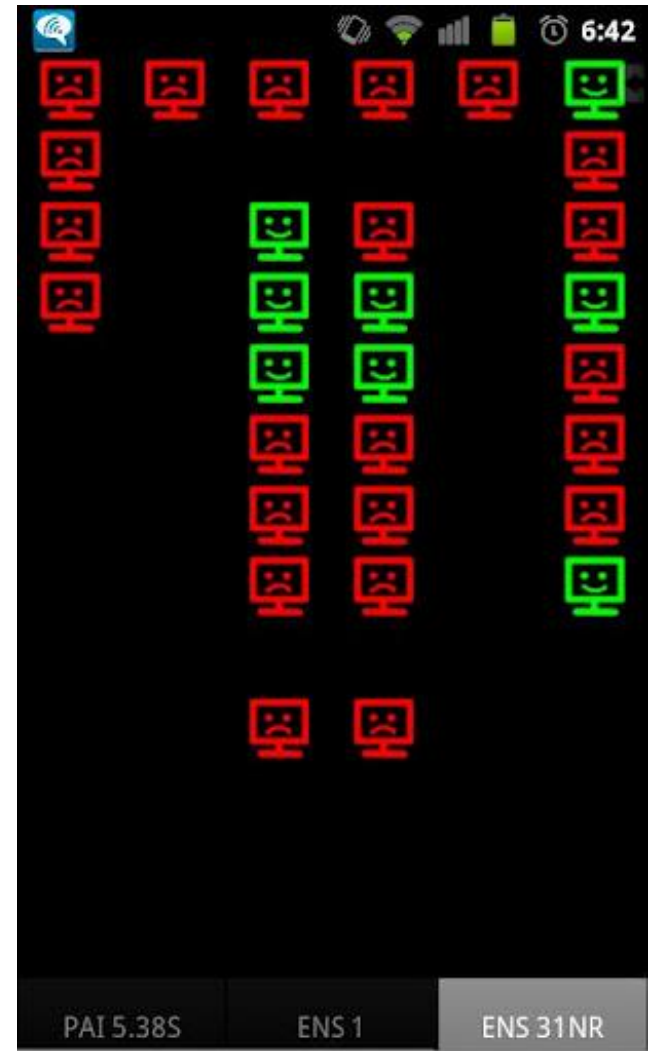


CS371m - Mobile Computing

App Project Overview

App Project

- Teams of 3 students
 - Not pair or team programming
 - Okay to divide and conquer
- Develop an Android application of your choosing subject to instructor approval
- Application must run on class dev phones, API Level 19



App Milestones

- App Proposals (Individual)
 - written 7/16, 11 pm via Canvas
 - posters 7/16, GDC 6.302, first half, second half
- Design Document, Wireframe, Navigation and UI Plan: 7/26
- How to, 8/9
- In class DEMOS 8/15 and 8/16
- App Project, 8/16 via Canvas

App Proposals

- individual assignment
- every student proposes two applications
- Scope, use of mobile features
- at least one service oriented
- written due at 11 pm, Canvas on 7/16
- posters in class 7/16
 - First half or second half presentation
- Posters - polished, (obvious when thrown together the morning of class)

InstaEatery



the Halal Guys



Hopdoddy



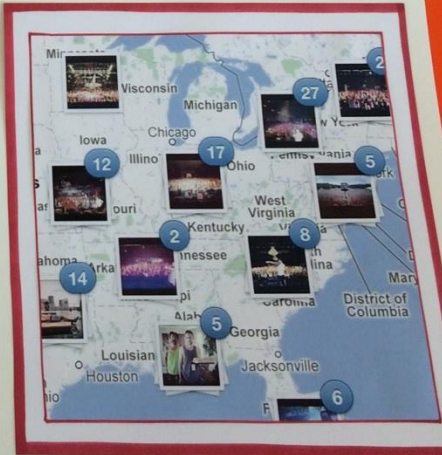
East Side King

1. HUNGRY!!!
2. Turn your location on
3. Open InstaEatery app
4. Find Instagram post of food near you
5. Filter by distance, or highly tagged restaurants.

How to:

- Deciding what to eat when none of your friends will decide
- Exploring your city
- Exploring new cities
- Staying hip amongst Foodies

Photo map



- ### features
- Uses Instagram photo map to tally how many Instagram post are taken there or #hashtag's the restaurant has
 - Save-able 'I want to try this' list
 - Uses Google maps to help you travel there

good for

- ### future
- Scrollable gallery of post of food made around you
 - Yelp reviews along side the restaurants that pop up often on Instagram

Giftery



FEATURES:

- Keeps track of birthdays you plan on doing something about
- Stores your ideas and photos
- Integrated with Amazon to price check
- Alerts you a few weeks in advance to buy the gift
- Money saving calculator, helps you determine how much should be saving weekly or monthly

CONTACTS:

Does not import all your contacts; This contact list will only contain whoever you input.

CALENDER:

- Includes the contact list birthdays, anniversaries, and other special occasions
- The further in advance you input a birthday, the more time you will have to prepare your gift
- Alerts you ahead of time that: an occasion is coming up, or that you should put money aside this month for your plans

NOTES:

- Stores notes you make about the person such as favorite colors, do not buys, favorite brands or stores



FUTURE:

Eventually, we could integrate a CheapCheapCheap, Massdrop, TechBargains tracker and other money saving sites to help you find good deals on a specific item!



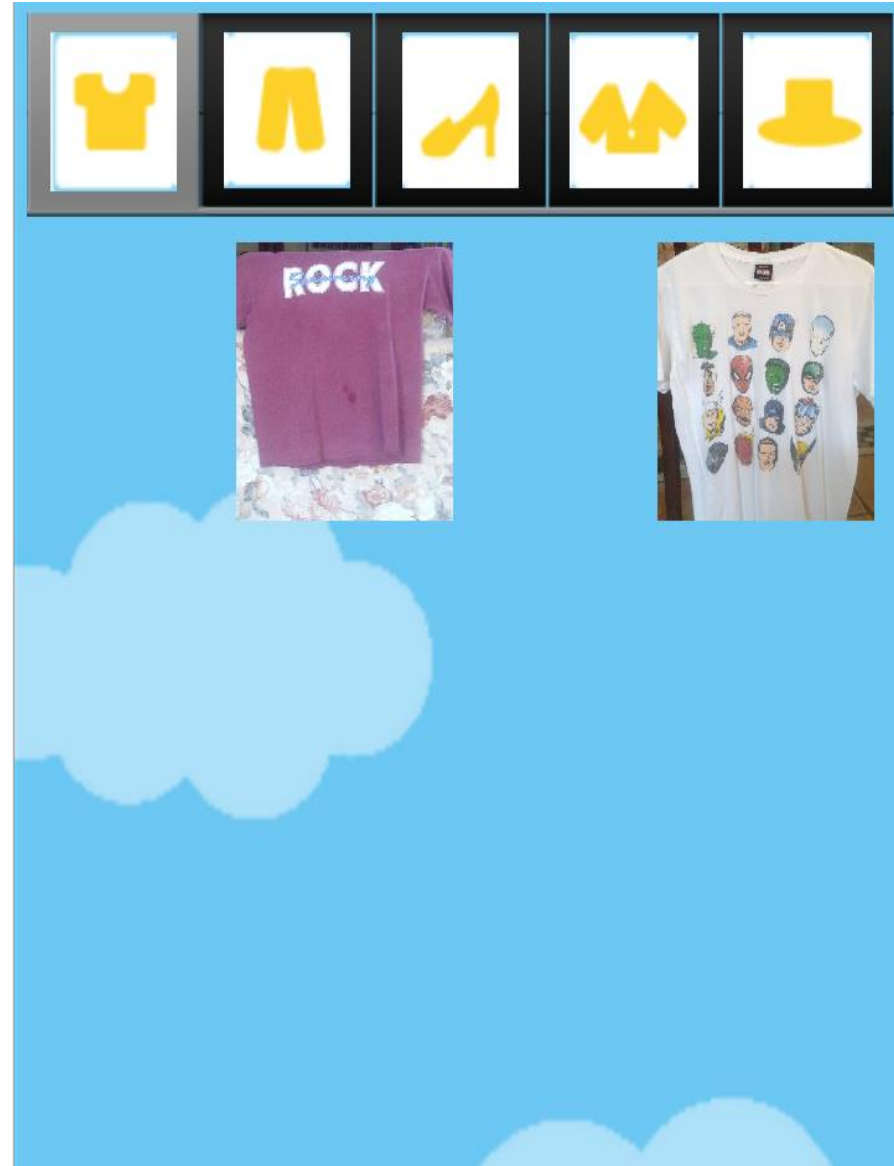
Design Document

- 7/26
- What app will actually do
- Use cases
- Menus
- Screens
- Wireframe
- Your Plan!!!



Finished App Project

- 8/16
- Fully Functional
- ***Polished***
 - UI polished
 - icon
 - graphics if necessary
 - menu options / app bar
 - sound / feedback
 - persistence
 - responsiveness



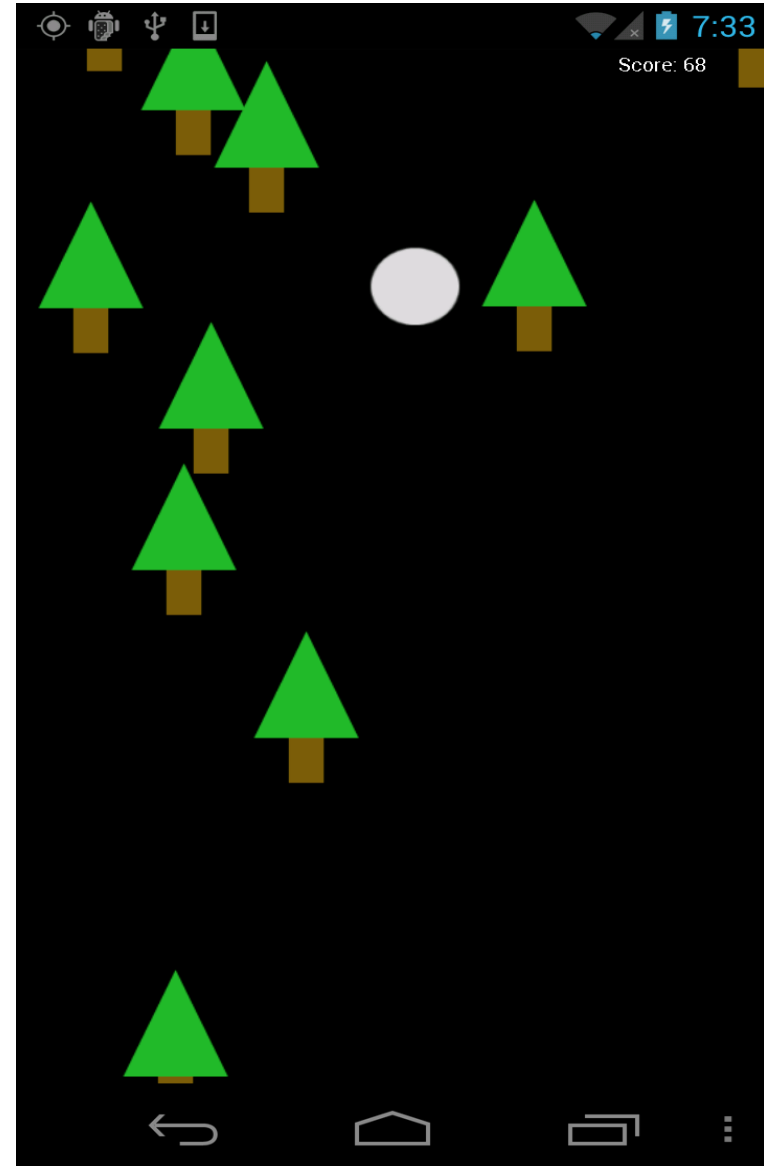
Beta Demos

- 8/15 and 8/16
- Assigned randomly
- roughly 10 minutes per presentation
- describe and demo app to class



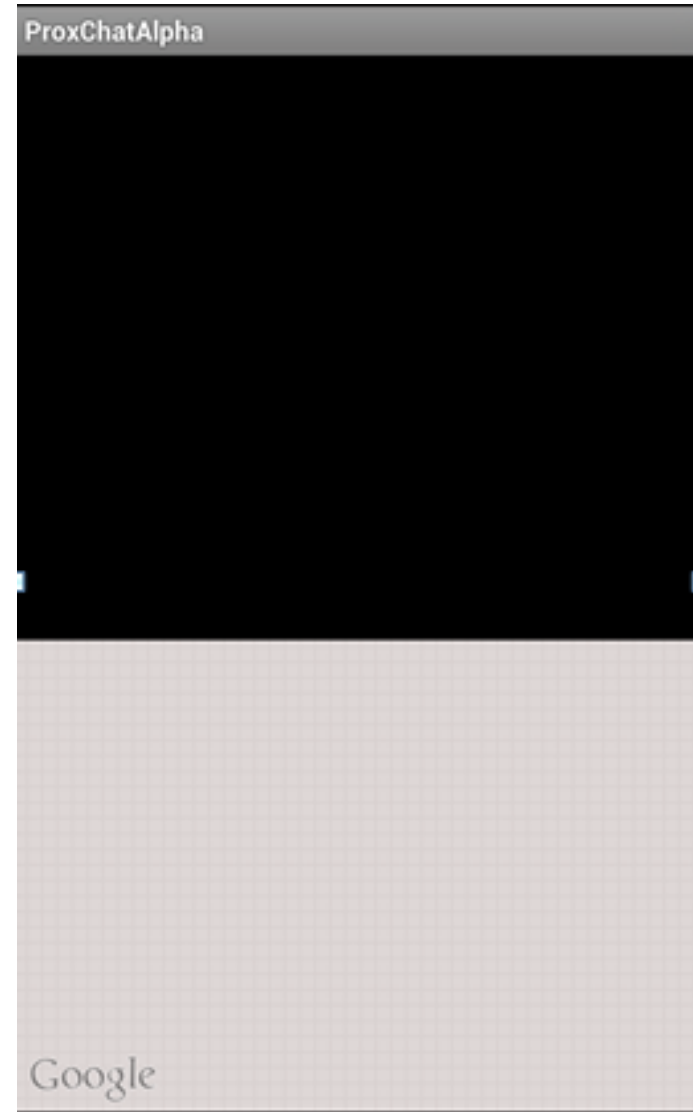
Recommendations

- Based on my own experience (and bias)
- Pick something you are interested in
- ... but that is reasonable!
- Better to have simple idea / app that can be improved and extended
- .. than a non-functioning pile of garbage



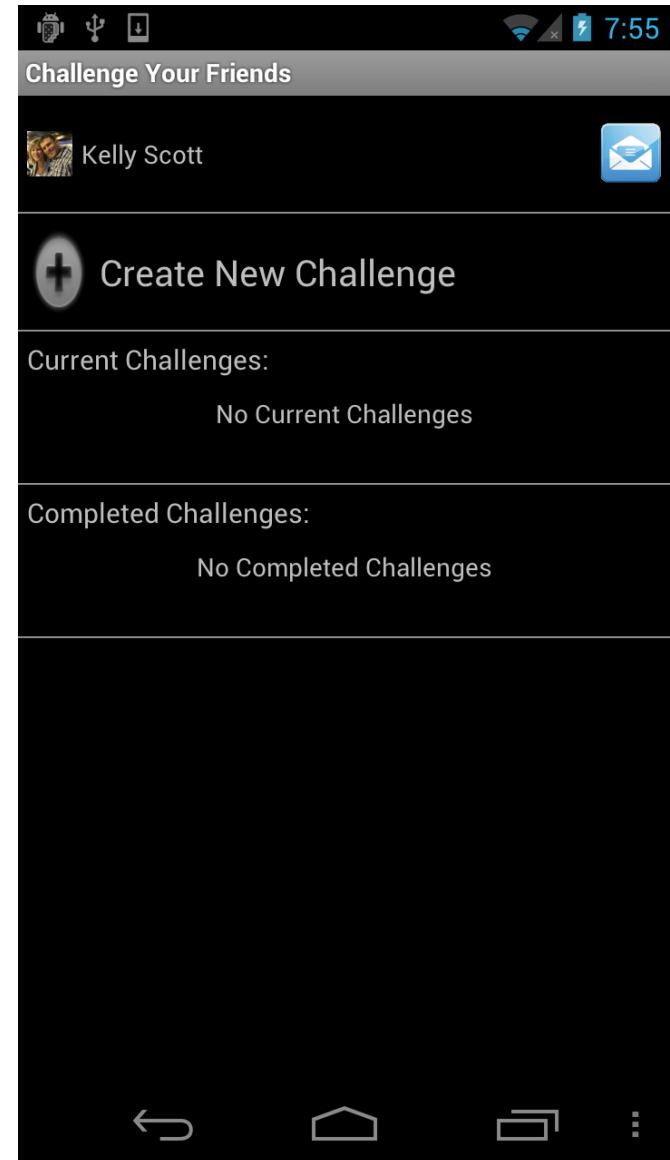
Recommendations

- Okay to make a clone
- Limit the scope!
- Okay to use APIs / libraries
 - but no silver bullet
 - integration is hard and time consuming
- Don't try to learn too many new technologies
 - if you need your own web server and to interact with a large data base, but don't know how to set one up, now is NOT the time to learn



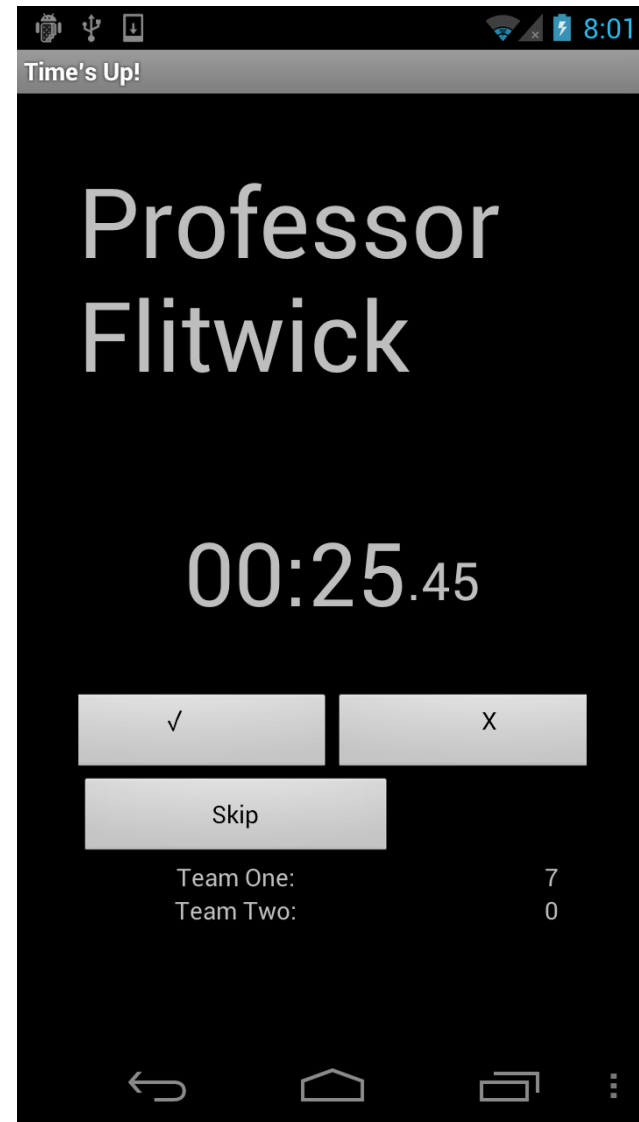
Recommendations

- Avoid social media
 - probably my bias, but kind of boring and high barriers to entry, network effects needed to see power of app
- Avoid apps with lots of initial data entry
- Avoid apps that are essentially static web pages



Requirement

- Must use ***some*** features of the mobile device such as:
- Location / Maps
- Sensors
- Gestures / Touch Screen
- Contacts
- Camera
- Network
- Available applications / services
- Speech - to - text
- microphone
- audio output



Recommendations

- Pick something you are interested in
- Pick something that scales down well
- Pick something you can do
 - the parking spot app

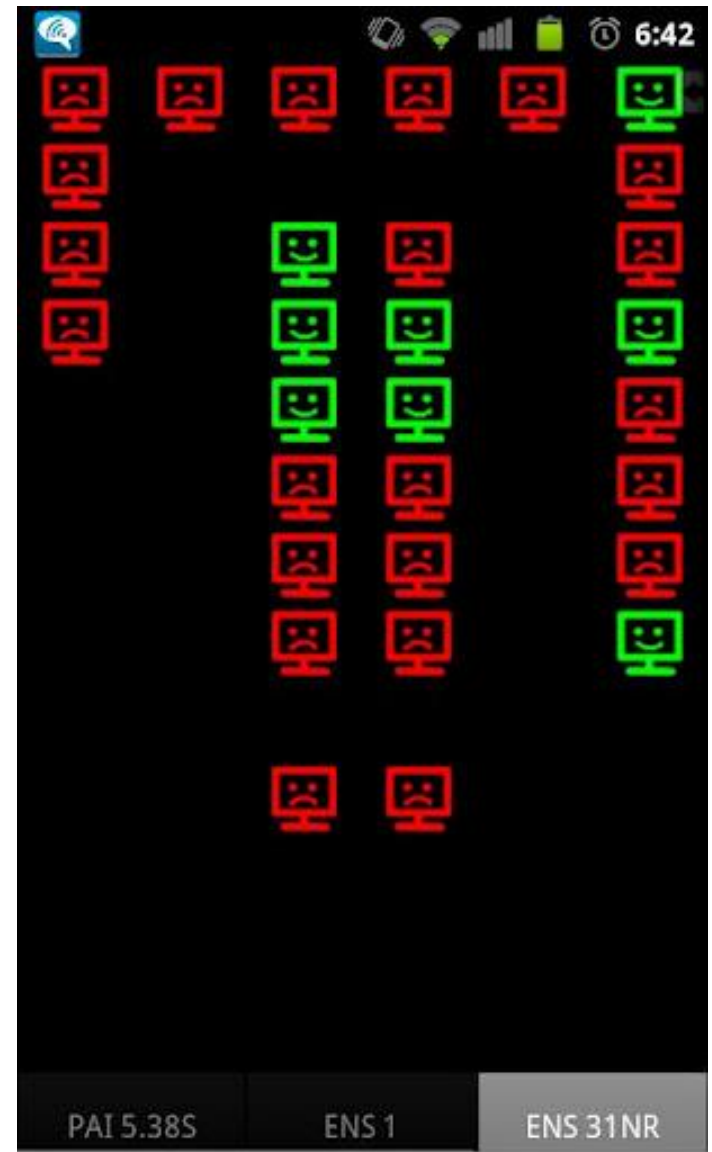
Backends

- Many apps require a *backend*
 - storage off the device to share between apps
- Easier now due to the rise in Mobile Backend as a Service
 - MBaaS
- Old favorite Parse
- Newer options
 - Firebase (Google)

PAST PROJECTS

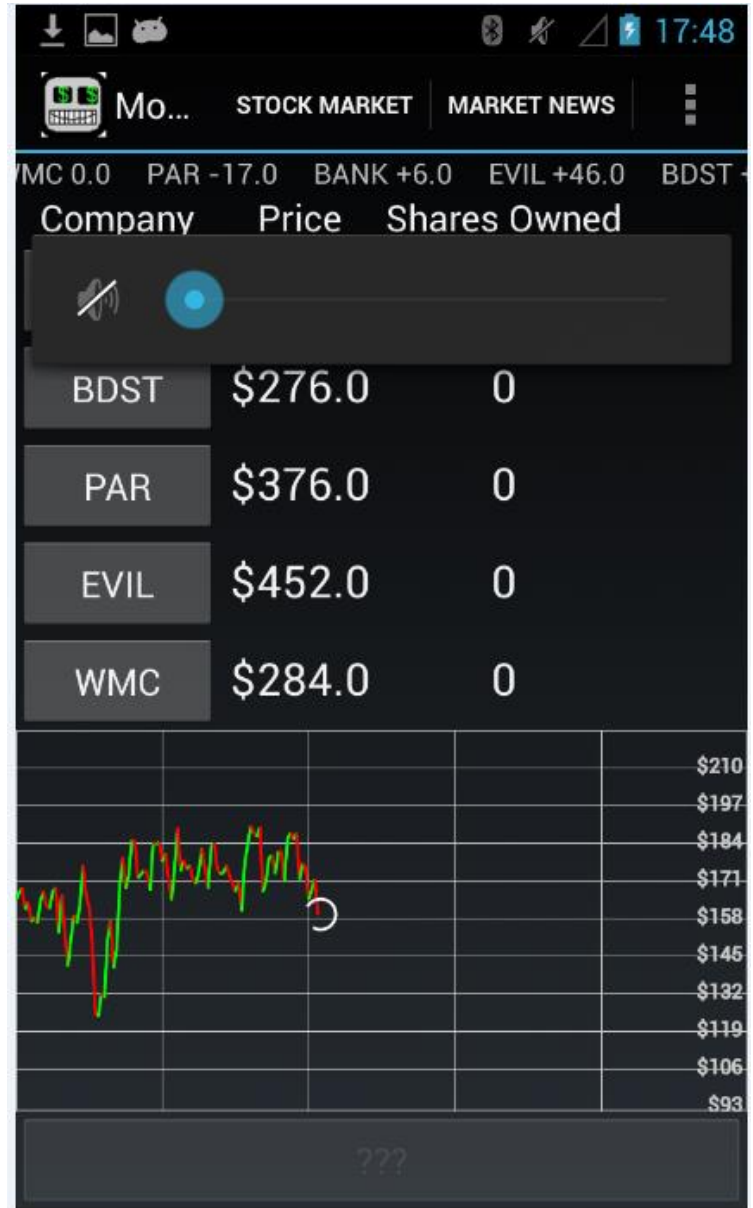
UTCS Lab Map

- Spring 2012
- What Linux machines are available (no one sitting there) in each CS lab?



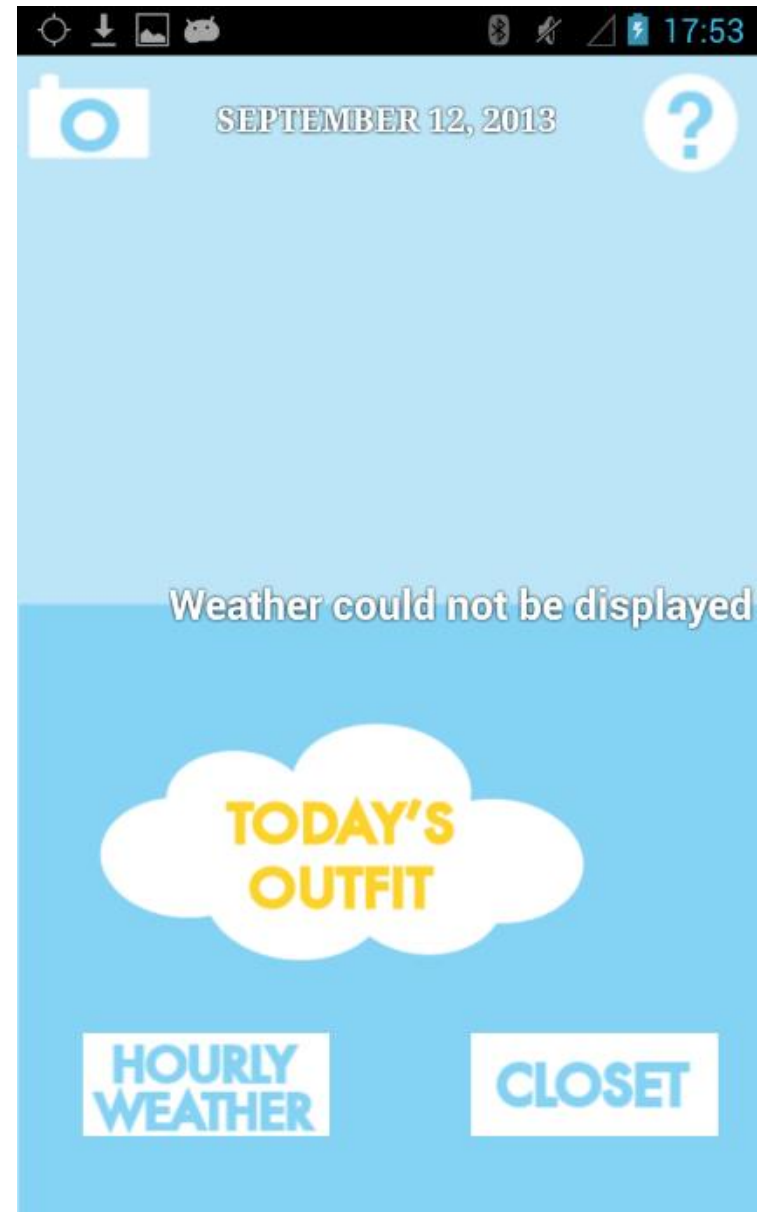
Past Projects

- Moonstocks, Fall 2012
- Stock market game
- Stock price moves in response to music playing
- buy low, sell high



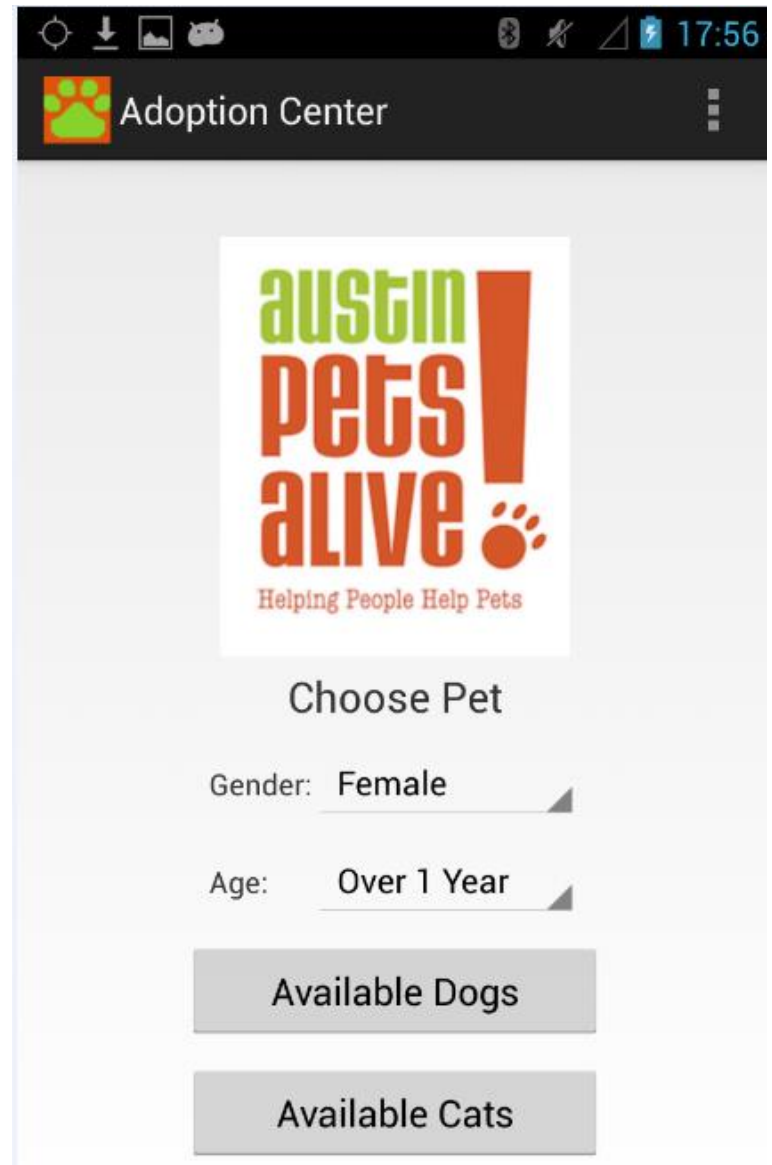
Dress for the Weather

- Spring 2012
- Take pictures of your clothes
- Classify and tag for weather
- Checks weather and recommends an outfit



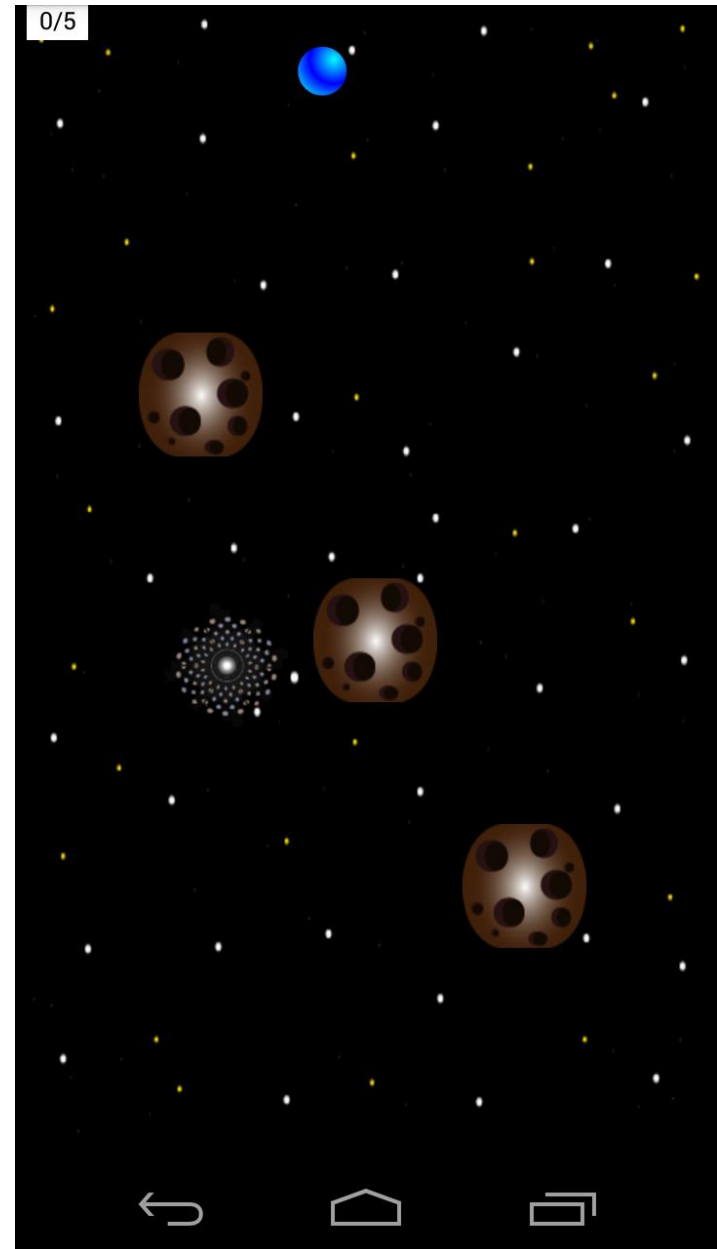
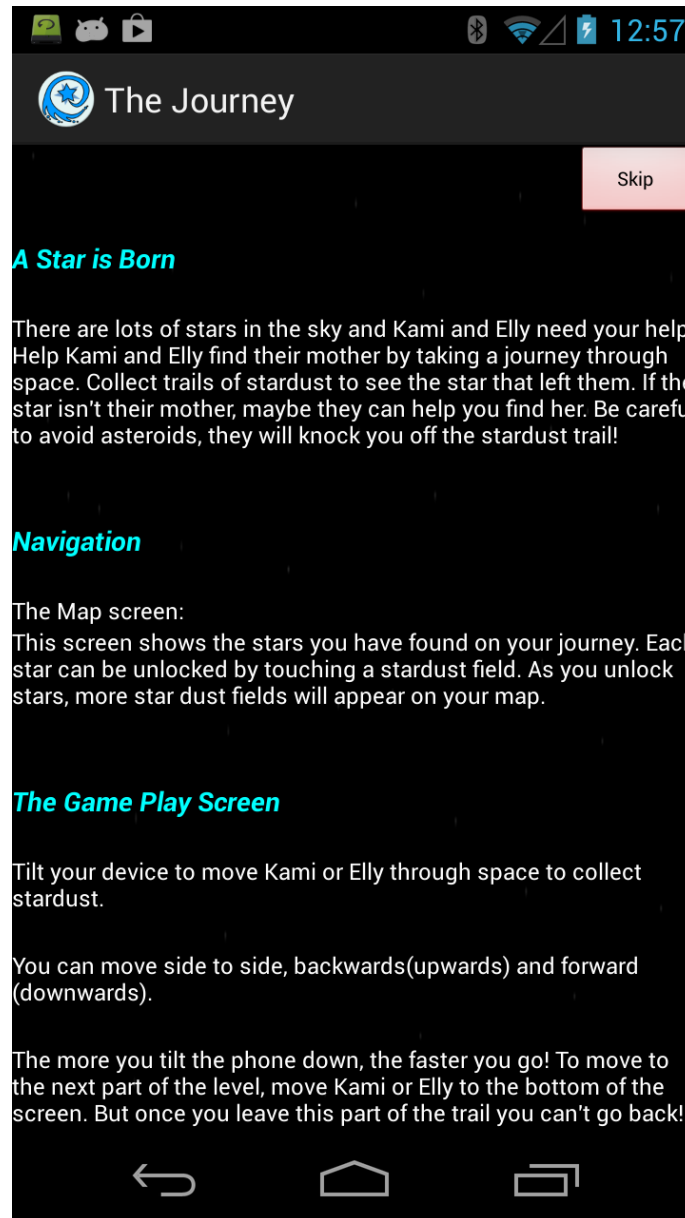
Austin Pets Alive

- Fall 2012
- Show dogs and cats available for adoption



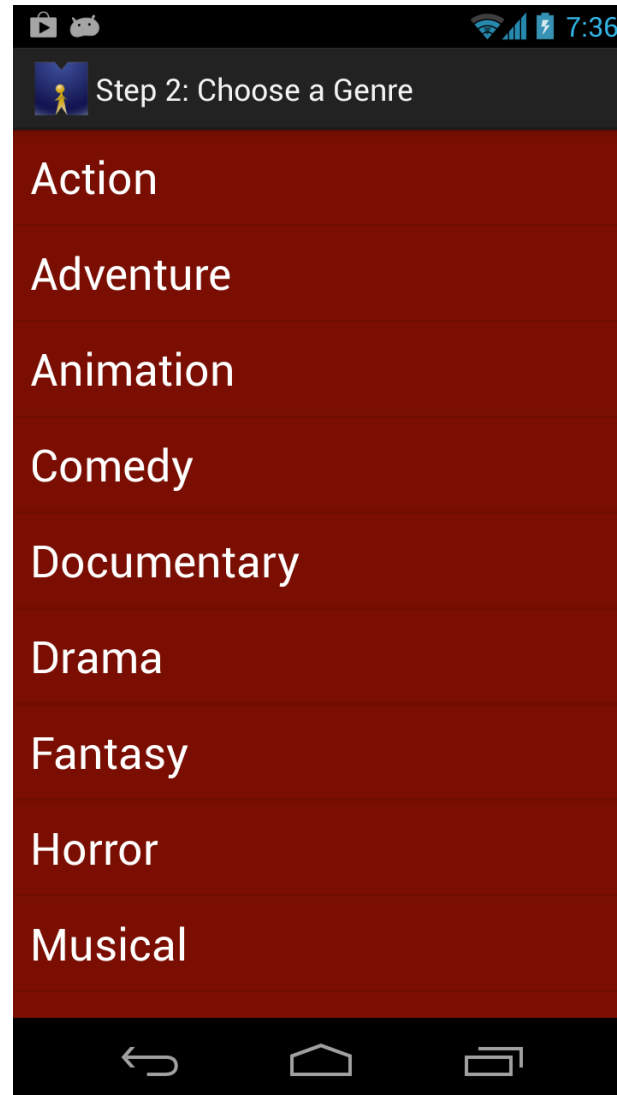
Shooting Stars Chronicles

- Fall 2012
- Tilt Game

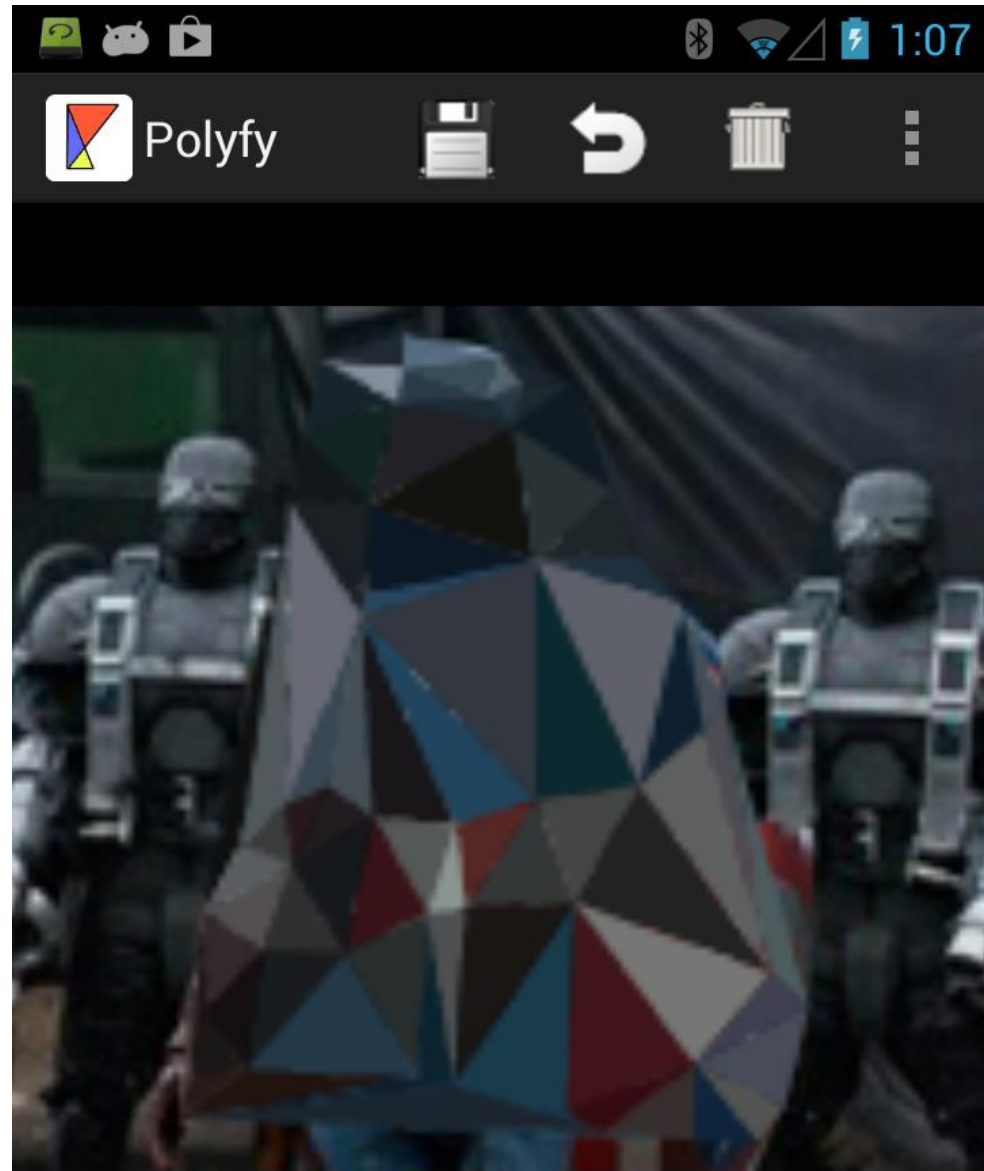
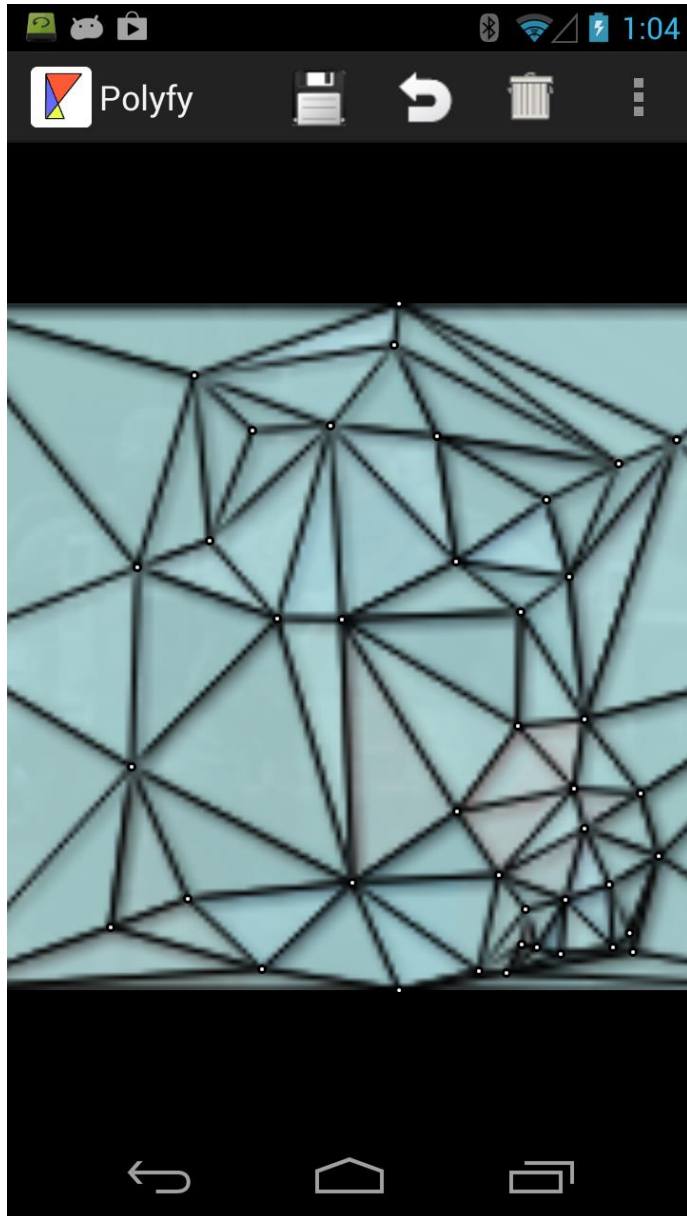


MovieGoer

- Fall 2012
- Suggests movie based on location and genre choice

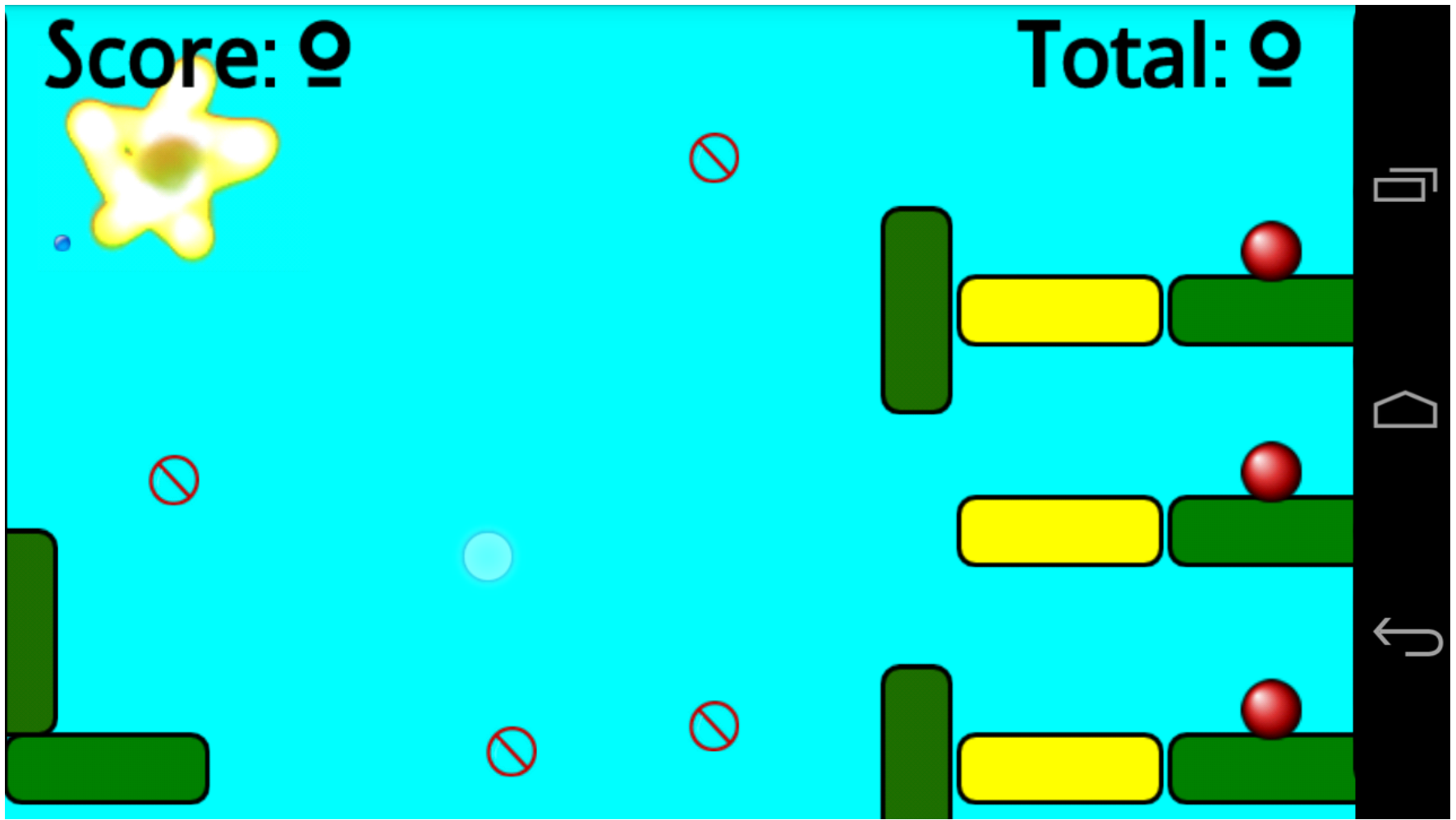


Polyfly - Fall 2013



Deballisher

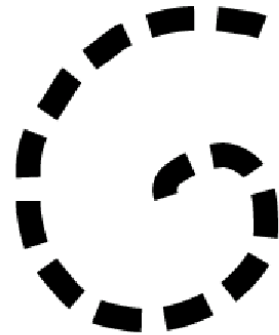
- Fall 2013, Tap game
- 3rd party physics package



TraceMe

- Spring 2014
- Trace dotted pattern
- Limited Ink
 - makes the game
- Used Parse cloud storage service

Score: 33



Ink Level



Cards Against People

- Spring 2014
- based on Cards Against Humanity
- clean version for review
- goal to use multiple devices but ran out of time

Cards Against People

Please, just let
me ____.

Start the game.

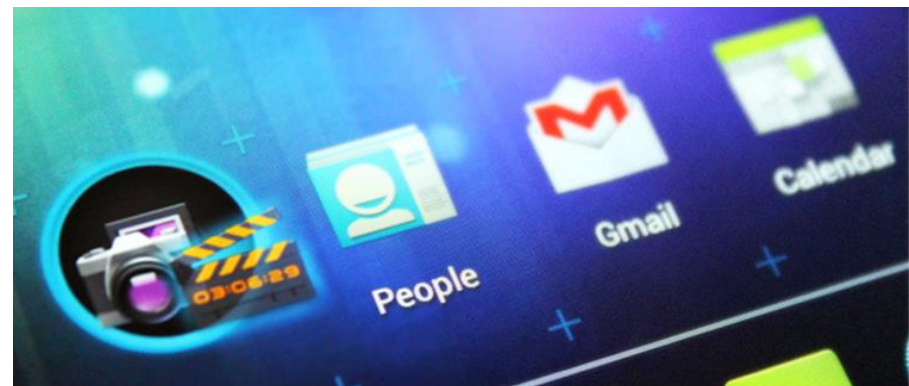
Manage my decks.

Learn how to play.

Change settings.

Android Design Guidelines

- Create Vision!
- Enchant Me!
- Simplify My Life!
- Make **ME** Amazing!
 - <http://developer.android.com/design/index.html>

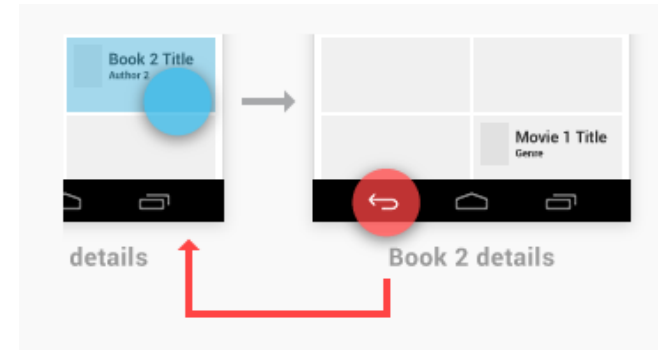


Create Vision

- **Delight me in surprising ways**
- **Real objects are more fun than buttons and menus**
- **Let me make it mine**
- **Get to know me**

Simplify My Life

- **Keep it brief**
- **Pictures are faster than words**
- **Decide for me but let me have the final say**
- **Only show what I need when I need it**
- **I should always know where I am**
- **Never lose my stuff**
- **If it looks the same, it should act the same**
- **Only interrupt me if it's important**

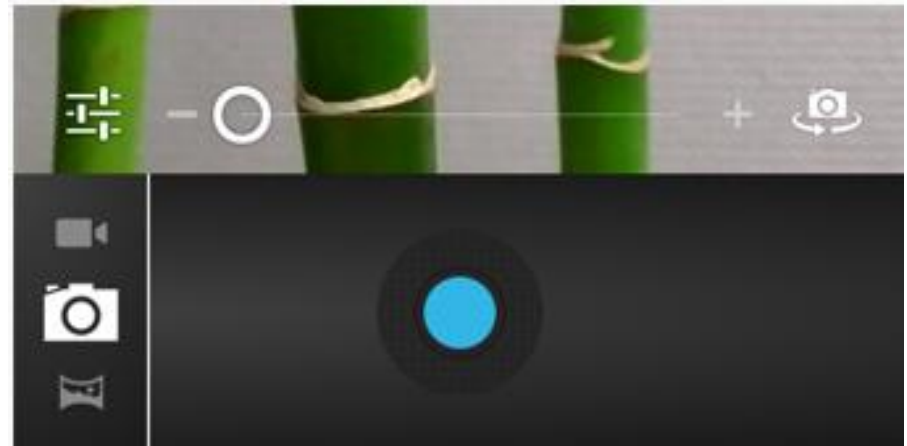


Make Me Amazing

- **Give me tricks that work everywhere**
- **It's not my fault**
- **Sprinkle encouragement**
- **Do the heavy lifting for me**
- **Make important things fast**

Insert SIM card

Turn off your phone, remove the battery, and carefully insert your SIM card with the gold contact side down. The cut-off corner should end up furthest away from the battery.



Apple App Guidelines

- **The Display Is Paramount, Regardless of Its Size**
- **Device Orientation Can Change**
- **Apps Respond to Gestures, Not Clicks**
- **People Interact with One App at a Time**
- **Preferences Are Available in Settings**
- **Onscreen User Help Is Minimal**
- **Most iOS Apps Have a Single Window**

<http://tinyurl.com/3yj7b5y>



Developer

Apple Human Interface Principles

- **Aesthetic Integrity**
- **Consistency**
- **Direct Manipulation**
- **Feedback**
- **Metaphors**
- **User Control**

User Experience Guidelines

- **Focus on the Primary Task**
- **Elevate the Content that People Care About**
- **Think Top Down**
- **Give People a Logical Path to Follow**
- **Make Usage Easy and Obvious**
- **Use User-Centric Terminology**
- **Minimize the Effort Required for User Input**
- **Downplay File-Handling Operations**
- **Enable Collaboration and Connectedness**
- **De-emphasize Settings**

User Experience Guidelines

- **Make Search Quick and Rewarding**
- **Entice and Inform with a Well-Written Description**
- **Be Succinct**
- **Use UI Elements Consistently**
- **Consider Adding Physicality and Realism**
- **Delight People with Stunning Graphics**

