Intents and Parcelables
Assignment for Next Tuesday night

- Add a ‘Detail Activity’ to your Movie App
  - I’ll do an example today
- Short Proposal for Term Project
CS 126 Term Project

- Imagine, Design, and Create your own android app.

- Three Requirements:
  - Have at least two activities (in the Android sense)
    - Today’s lecture
  - Have interactivity between App users across devices
    - Thursday’s lecture
  - Use one Android platform feature not explicitly taught
    - E.g., hardware features (e.g., GPS, accelerometer, gyroscope, camera, microphone, speaker), authentication (e.g., Firebase), notifications (e.g., Firebase), activities with multiple fragments, custom Views using android.graphics.canvas,
Intents

- Launch another App
  - E.g., open a web page, Google Maps, send a text, phone call
  - Implicit Intent (specify task rather than App)

- Launch another Activity in the same App.
  - Main Activity -> Detail Activity
  - Explicit Intent (specify specific class to go to)
Passing Information with Intents

- **Extras**
  - Enables passing tagged, primitive data with an intent
    - The tag is a string
    - Only primitive types (int, String, etc); no objects

- **Bundles**
  - Android groups the extras together in a ‘Bundle’
  - Serializes them (i.e., converts into a stream of bytes)
Sending non-primitives as Extras

- Parcelable interface

Like converting to JSON and passing as String and converting back, but much more efficient.

Addon to write the code for you. See:
Parcelable Example

```java
public class MyParcelable implements Parcelable {
    private int mData;
    public int describeContents() { return 0; }
    public void writeToParcel(Parcel out, int flags) {
        out.writeInt(mData);
    }
    public static final Parcelable.Creator<MyParcelable> CREATOR
        = new Parcelable.Creator<MyParcelable>() {
            public MyParcelable createFromParcel(Parcel in) {
                return new MyParcelable(in);
            }
            public MyParcelable[] newArray(int size) {
                return new MyParcelable[size];
            }
        };
    private MyParcelable(Parcel in) {
        mData = in.readInt();
    }
}
```
To Do for Thursday

- Watch Lesson 4 (Intents) of the Google/Udacity class
- Start thinking about a final Android project