



Intents and Parcelables



How hard was the week 10 code review assignment?

- A) Easy**
- B) Moderate**
- C) Challenging**
- D) Unreasonable**

How long did week 10 assignment take?

- A) Less than 2 hours
- B) 2 to 4 hours
- C) 4 to 6 hours
- D) 6 to 8 hours
- E) More than 8 hours

Assignment for Next Wednesday night

- **Add a 'Detail Activity' to your Zomato 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
 - Tuesday'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`,

Unix

- **Compressed files**

- zip/unzip
- gzip/gunzip
- tar – create or read an archive

- **Pipes**



- Feed the output of one command into another

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 *Serialization*
- *<https://developer.android.com/reference/android/os/Parcelable.html>*
- *Like converting to JSON and passing as String and converting back, but much more efficient.*
- **Addon to write the code for you. See:**
 - <http://corochann.com/fast-easy-parcelable-implementation-with-android-studio-parcelable-plugin-641.html>

Parcelable Example

```
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();
    }
}
```