Implicit Intents and Services

Implicit Intents

- Declare an Action to occur rather than a class to start
- Actions can be handled by any app that registers for that type of intent
- Intent Filters register Apps with the system

Default Actions Available with Implicit Intents

- Open a map
- Make a phone call
- View a web page
- Send an Email
- Create a Calendar Event
- Sent a Text Message

Code

```
// Create the text message with a string
Intent sendIntent = new Intent();
sendIntent.setAction(Intent.ACTION_SEND);
sendIntent.putExtra(Intent.EXTRA_TEXT, textMessage);
sendIntent.setType(HTTP.PLAIN_TEXT_TYPE); // "text/plain" MIME type

// Verify that the intent will resolve to an activity
if (sendIntent.resolveActivity(getPackageManager()) != null) {
    startActivity(sendIntent);
}
```

Doing Stuff in the Background

Services

- Services allow long running operations to be performed in the background
- A Services continues running indefinitely even if the component that started it is destroyed
- Intents are paired with services to allow services to interface with components like Activities

Configuring a Service

- Service must be declared in the manifest
- Most Often you'll subclass Intent Service and Override it's onHandleIntent Method
- Repeating Alarms and the AlarmManager can be used to schedule Service Execution

Code

IntentService Subclass

Constructor

```
public PollService() {
        super(TAG);
    }
```

SetAlarm

```
public static void setServiceAlarm(Context context, boolean isOn) {
        Intent i = new Intent(context, PollService.class);
        PendingIntent pi = PendingIntent.getService(context, 0, i, 0);

        AlarmManager alarmManager = (AlarmManager)context.getSystemService(Context.ALARM_SERVICE);

        if (isOn){
            alarmManager.setRepeating(AlarmManager.RTC, System.currentTimeMillis(), POLL_INTERVAL, pi);
        } else {
            alarmManager.cancel(pi);
            pi.cancel();
        }
    }
```

isAlarmOn?

```
public static boolean isServiceAlarmOn(Context context) {
        Intent i = new Intent(context, PollService.class);
        PendingIntent pi = PendingIntent.getService(
                context, 0, i, PendingIntent.FLAG_NO_CREATE);

        return pi != null;
    }
```