Locations in Android: Some Updates
Location

- My slides: Covered Android.location:
  - As I mentioned, Google would prefer you NOT use this way to access location
  - But used by most books, available code

- Preferred way: Google Location Services API. Can retrieve
  - location at regular intervals using requestLocationUpdates(
  - Geographical location (latitude, longitude)

- Can also retrieve Location, contains bearing (direction of horizontal travel), altitude, velocity using fused location provider
Location

- Official Google documentation for Google Location Services API looks good, adequate
  - Overview: https://developer.android.com/training/location
  - Request location permissions: https://developer.android.com/training/location/permissions
  - Get last known location: https://developer.android.com/training/location/retrieve-current
  - Change location settings (e.g. GPS vs WiFi): https://developer.android.com/training/location/change-location-settings
  - Request location updates: https://developer.android.com/training/location/request-updates
  - Access location in background: https://developer.android.com/training/location/background
GeoFencing in Android: Some Updates
GeoFencing

- Old way: GeofencingApi deprecated
- Code sample in Android studio implements this unfortunately
- Tin Mengali's article I previously referred to also uses this. Removed reference to it
- GeofencingApi typically used in conjunction with a GoogleApiClient

```java
new GoogleApiClient.Builder(context)
    .addApi(LocationServices.API)
    .addConnectionCallbacks(this)
    .addOnConnectionFailedListener(this)
    .build()
```
GeoFencing

- New way: GeofencingClient
- Create, start monitoring geoFences
  - Need to create instance of GeofencingClient
- Specify GeoFences using:
  - GeofencingRequest
  - GeofencingRequestBuilder
- Create broadcast receiver to be notified of geofence transitions
- Add geofences using GeofencingClient.addGeofences()
- Remove geofences using geofencingClient.removeGeofences()
GeoFencing

- Official Google documentation
  - https://developer.android.com/training/location/geofencing
  - https://developers.google.com/location-context/geofencing

- Good reference articles with good examples, gentle walkthrough:
  - https://techpaliyal.com/android-geofencing/