Outline

● Logistics
● RecyclerView review
● Intents
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Week 1: Industry panel discussion

- Assn 1: Tip Calculator
- Assn 2: Google Maps
- Assn 3: Yelp Clone
Assignment 2- My Maps

- RecyclerView
- Google Maps integration
- Activities and intents
Guest speaker next week: Nikil Viswanathan

- Built [Down to Lunch](#) (iOS and Android app):
  - #1 Social App in 2018
  - iOS and Android app

- Co-founder & CEO at [Alchemy](#)
  - Blockchain development platform powering millions of users
Tip Calculator highlights

Ying Hang Seah
My Maps app

- Project due Sunday, October 25, 11:59pm
- Partner feedback due Wednesday, October 28, 4:30pm
- Submission through Canvas!
Outline

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RecyclerView Components

RecyclerView

LayoutManager

Adapter

Dataset
Week3

Person 1
Age: 1

Person 2
Age: 2

Person 3
Age: 3

Person 4
Age: 4

Person 5
Age: 5

Person 6
Age: 6

Person 7
Age: 7

Person 8
Age: 8
Sample interview question

- What are the main benefits of RecyclerView compared to ListView?

- Why not display a TextView and display all the data formatted inside it?
RecyclerView vs ListView

● (+) More efficient by default (use the ViewHolder pattern)
● (+) More flexible for styling + animations
● (+) Separation of concerns
● (-) More complicated
Outline

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Intents

- Android system for communicating between different components
- A request given to:
  - Your own application
  - An external application
  - A built-in Android service
Multiple activities (or screens)
Use cases

- Email list → detail view
- Tweet list → single tweet
- Data params can be passed to the child activity
- Data can also be returned to the parent activity
Use Android Studio to create new activities

- Creates a new XML layout file for the UI
- Creates a Kotlin file for the business logic
- Adds the activity to the AndroidManifest.xml file so your app is aware of it:

```xml
<application>

    ....

    <activity android:name=".AddContactActivity"></activity>

</application>
```
Create an intent

- Navigate to the newly created Activity (usually in response to an event)
  - `val myIntent = Intent(this, ActivityName::class.java)`
  - `startActivity(myIntent)`

- If you want to pass data into the 2nd activity, call `putExtra` on the intent. Think of it like a map.
  - `val myIntent = Intent(this, ActivityName::class.java)`
  - `myIntent.putExtra("tweet_id", 1234)`
  - `myIntent.putExtra("username", "rpandey1234")`
  - `startActivity(myIntent)`
Types of Intents

- **Explicit intent**: launch other activities in your app
  - `val myIntent = Intent(this, ActivityName::class.java)`
  - `startActivity(myIntent)`

- **Implicit intent**: request to perform an action based on a desired action
  - `val browserIntent = Intent(Intent.ACTION_VIEW, Uri.parse("url.com"))`
  - `startActivity(browserIntent)`
  - **Common implicit intents**: start a phone call, take a picture, open the browser/maps
Returning data to the parent

Activity A
Profile Screen

Activity B
Edit Screen

data
Getting a result back from a launched activity

- Sometimes you’ll want to get data from the launched activity
  - ProfileActivity launched EditActivity: user edited their profile
  - Intent to take a picture
- Call `startActivityForResult` rather than `startActivity`.
  - Pass a request code along with the intent
  - Returns immediately, but the Android system will call another method...
- `onActivityResult` is called when the second activity is done
  - Second activity should call `setResult` and `finish` to communicate back
Prep for next week

- Start working on **My Maps**

- Optional: integrating the camera in your app ([video](#))