

Oct. 09, 2022

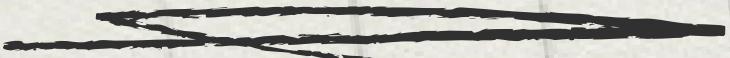
MNNIT Computer Coding Club

ANDROID DEVELOPMENT

Class 3



AGENDA



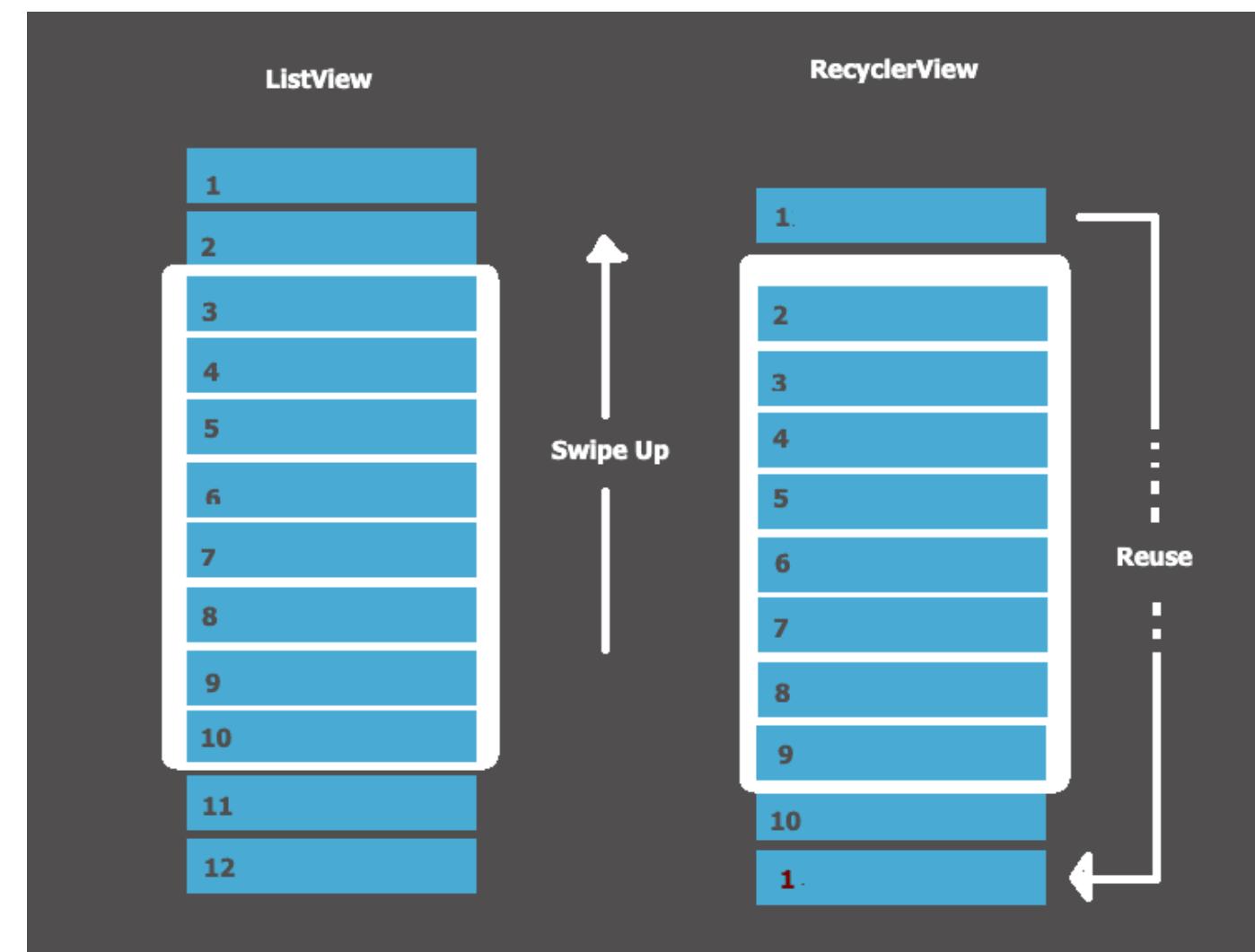
Topics covered in the last class:

AndroidManifest.xml
Permissions
Dependencies
Adapters

- ★ RecyclerView
- ★ JSON Parsing
- ★ Firebase
- ★ Notifications

RecyclerView

It is a container for displaying large datasets which can be scrolled efficiently by maintaining limited number of views



RecyclerView Demo

Let's now see a demo for RecyclerView...

JSON

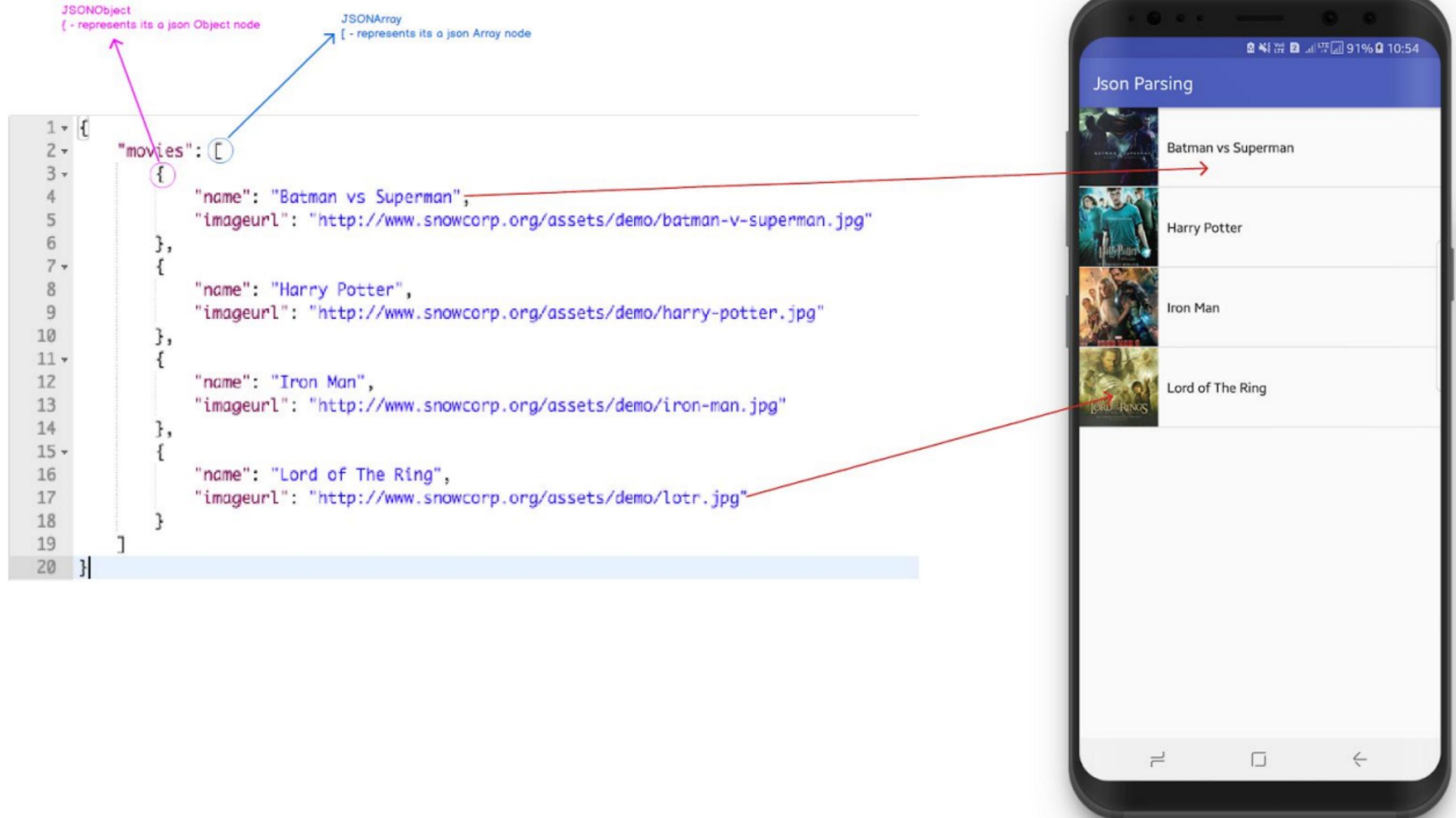
JSON stands for **JavaScript Object Notation**.

JSON is a lightweight format for storing and transporting data.

It is easy for humans to read and write and easy for machines to parse and generate.

```
1  {
2    "string": "Hi",
3    "number": 2.5,
4    "boolean": true,
5    "null": null,
6    "object": { "name": "Kyle", "age": 24 },
7    "array": ["Hello", 5, false, null, { "key": "value", "number": 6 }],
8    "arrayOfObjects": [
9      { "name": "Jerry", "age": 28 },
10     { "name": "Sally", "age": 26 }
11   ]
12 }
13
```

JSON Parsing



Firebase

Firebase is a platform developed by Google for creating mobile and web applications.

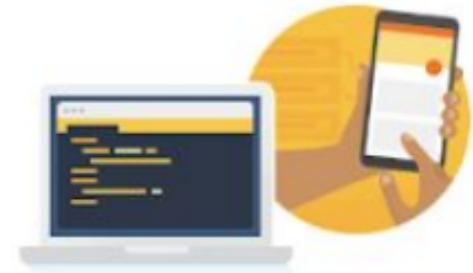
It was originally an independent company founded in **2011**.

In **2014**, Google acquired the platform and it is now their flagship offering for app development.

Now, let's discuss what firebase offers us.



Built with
Firebase



Build better apps



Auth



Hosting



Cloud Functions



ML Kit



Cloud Firestore



Realtime Database



Cloud Storage



Improve app quality



Crashlytics



Performance Monitoring



Test Lab



Analytics



Predictions



Cloud Messaging



In-app Messaging



Grow your app



Remote Config



A/B Testing

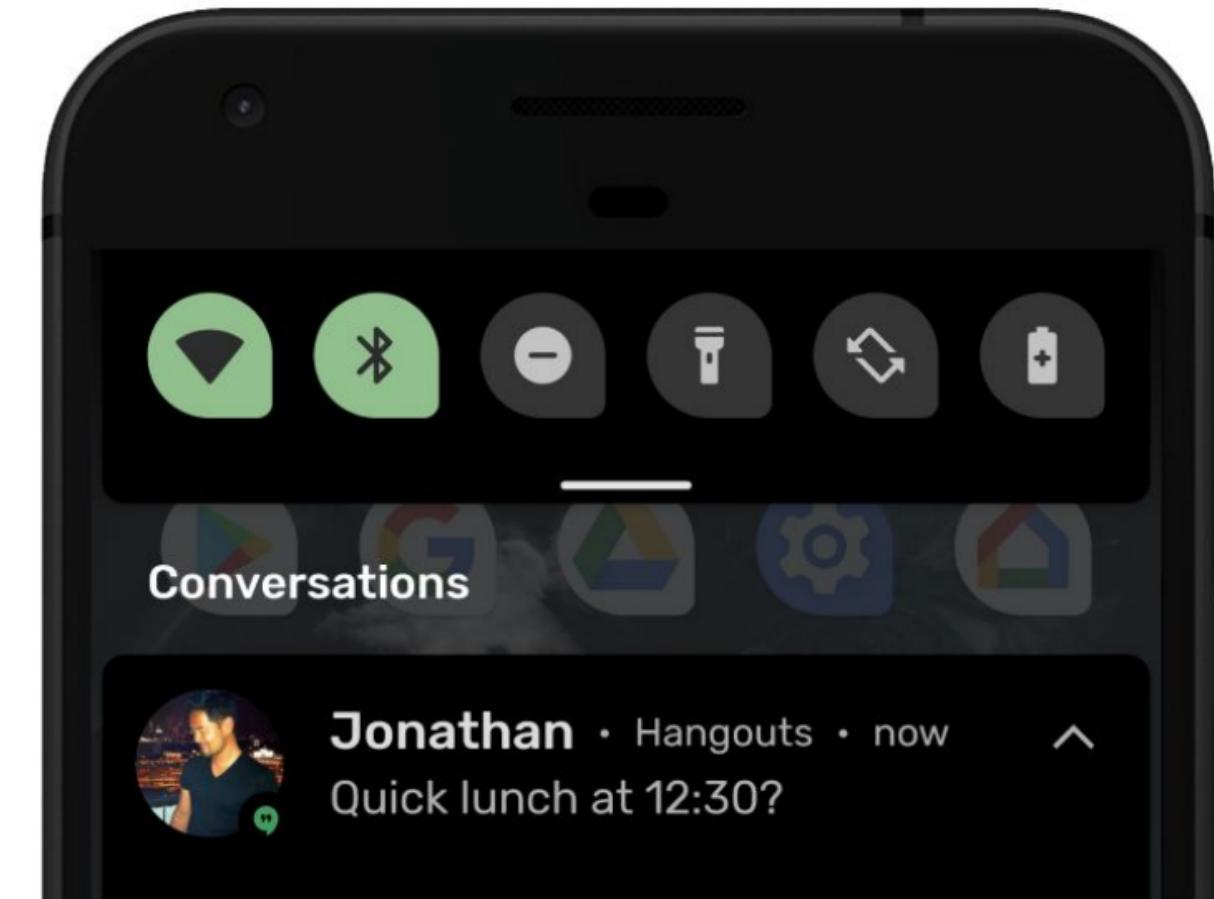


Dynamic Links

Notifications

A notification is a message that Android displays outside your app's UI to provide the user with **reminders**, **communication from other people**, or **other timely information** from your app.

Notifications appear to users in different locations and formats, such as an icon in the **status bar**, a more detailed entry in the **notification drawer**, as a badge on the app's icon, and on paired wearables automatically.



Notifications Anatomy

- 1 Small icon: This is required and set with `setSmallIcon()`.
- 2 App name: This is provided by the system.
- 3 Time stamp: This is provided by the system but you can override with `setWhen()` or hide it with `setShowWhen(false)`.
- 4 Large icon: This is optional (usually used only for contact photos; do not use it for your app icon) and set with `setLargeIcon()`.
- 5 Title: This is optional and set with `setContentTitle()`.
- 6 Text: This is optional and set with `setContentText()`.

