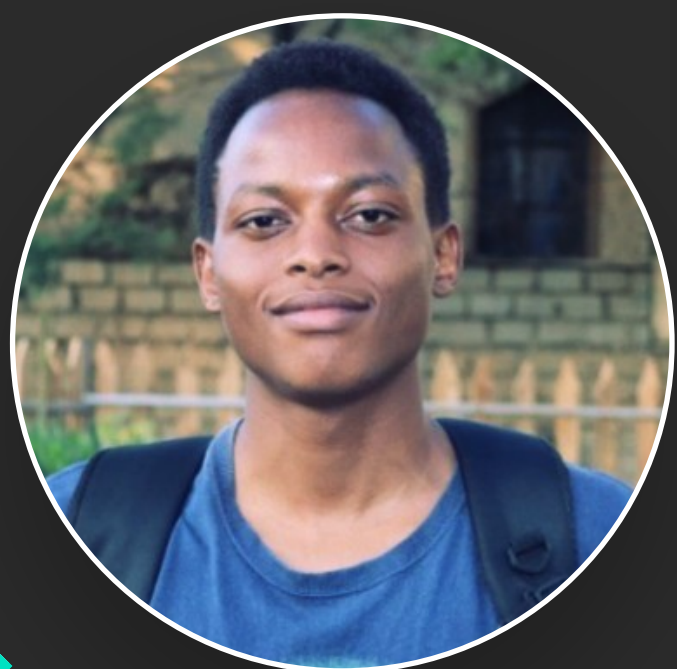




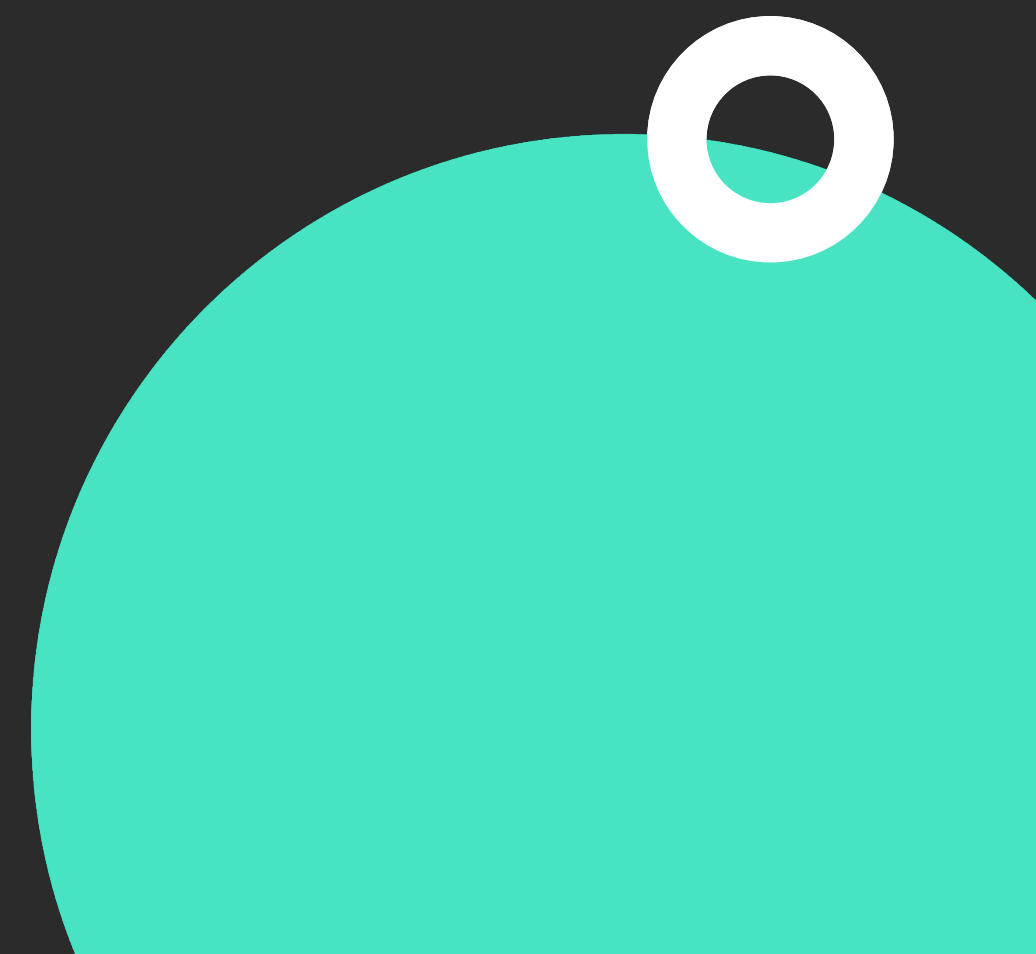
Android Retrofit Fundamentals: MVVM & Jetpack Compose



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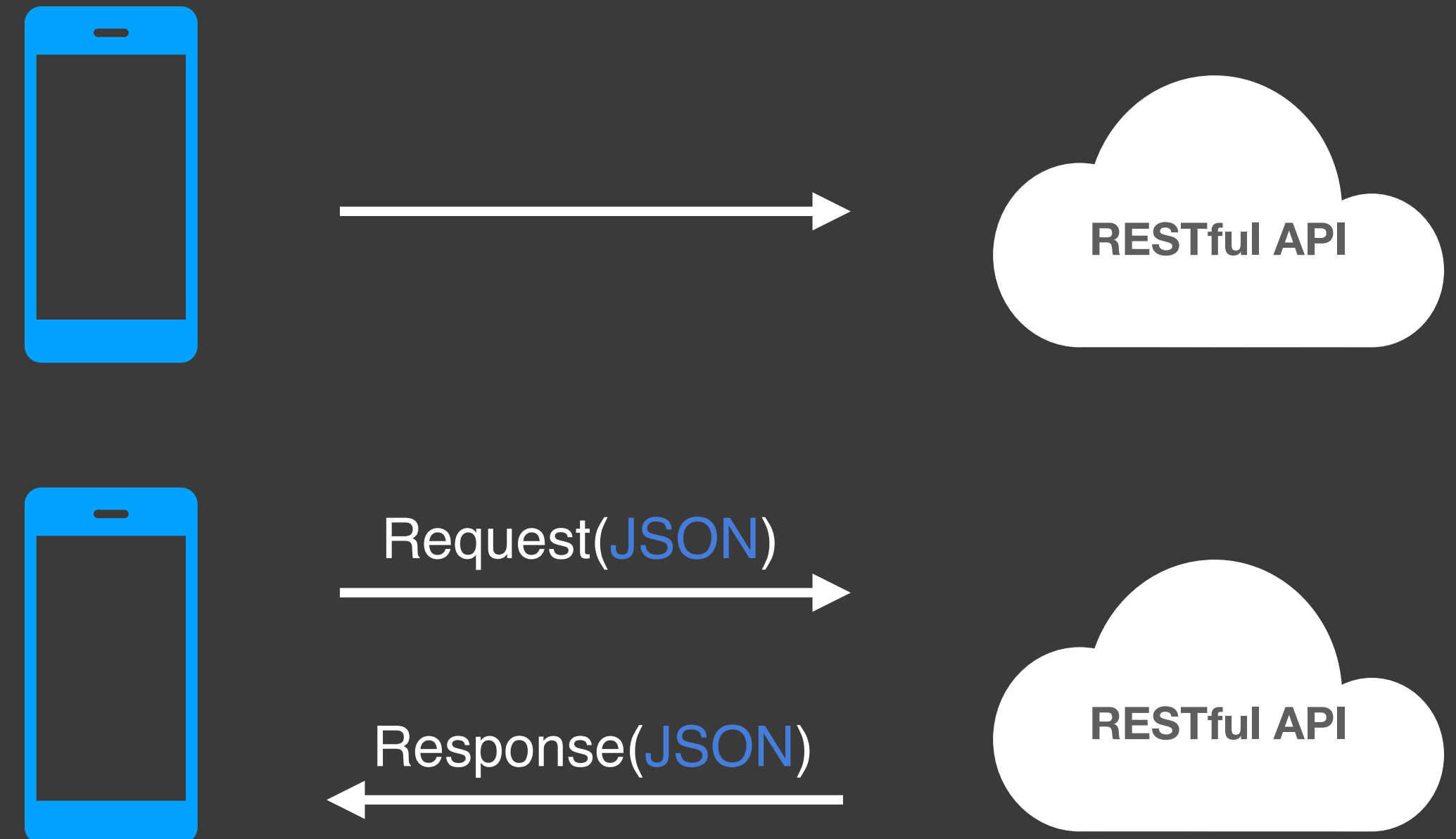
Section Overview

- Overview of the Android Retrofit Library
- How Retrofit works
- Benefits of using Retrofit
- Demo of the **final** project
- Explore the **starter** project



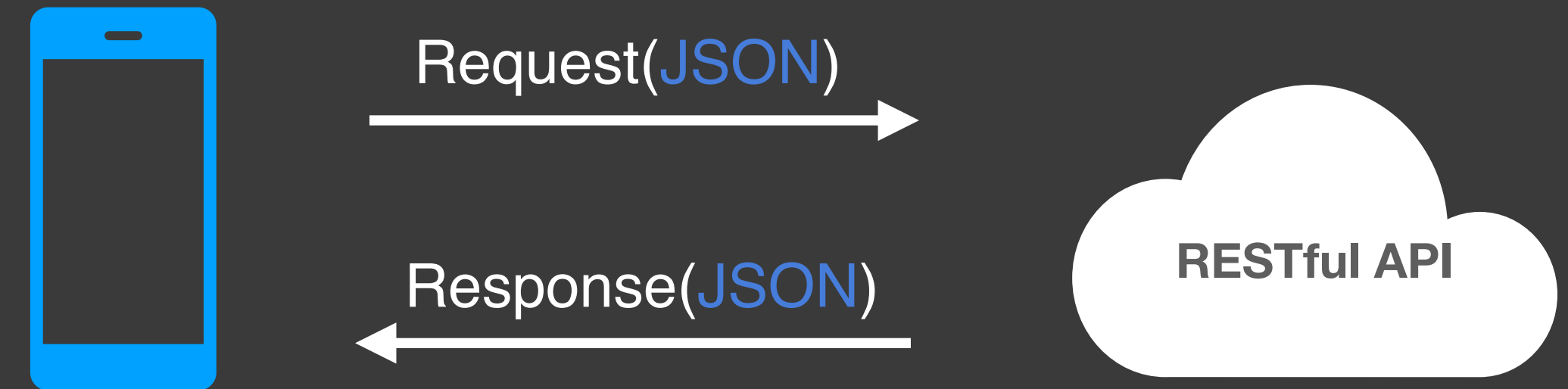
What is Retrofit 🤔

- Android library that provides Android app the ability to communicate with **RESTful APIs**
- Handles the conversion of **JSON** to objects
- Provides an easier way for developers to define the endpoints that communicate with the **RESTful APIs**
- **Endpoints** are URLs provided by APIs to perform specific functionalities



What is JSON ?

- JSON in full means **JavaScript Object Notation**
- Client and server use **JSON** to communicate
- The format is in form of key-value pairs
- **Key** is the label identifier of the data
- **Value** represents the actual data
- Other data formats i.e **XML, Protocol Buffers, CSV**

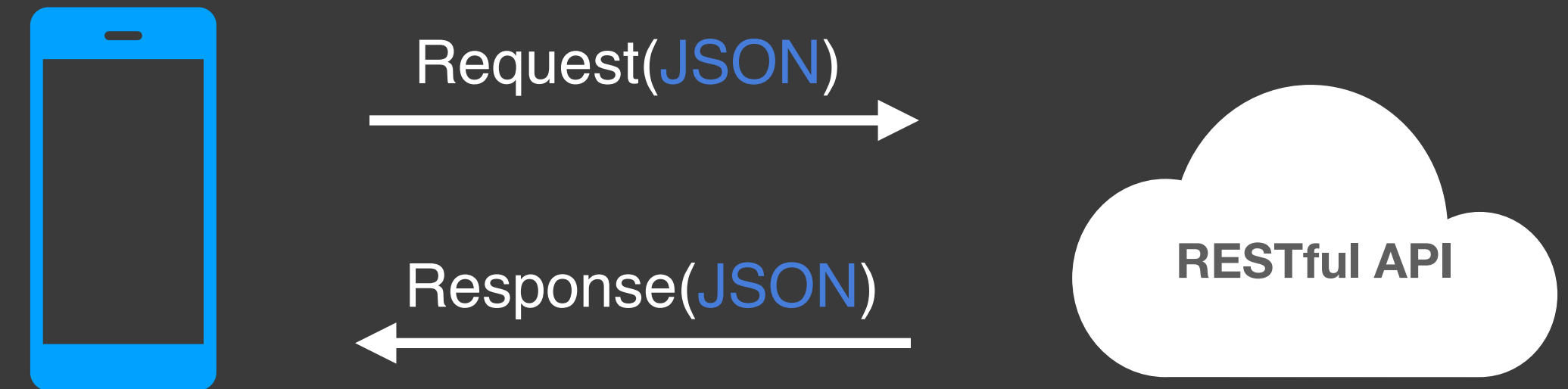


```
{  
  firstName: "James",  
  lastName: "Doe",  
  Email: "james@email.com",  
}
```



How Retrofit Really Works?

- Retrofit uses HTTP to communicate with a server
- Converts the request data into JSON
- Response data is the converted to objects






```
{  
  firstName: "James",  
  lastName: "Doe",  
  Email: "james@email.com",  
}
```

```
data User(  
  val firstName: String,  
  val lastName: String,  
  val Email: String,  
)
```



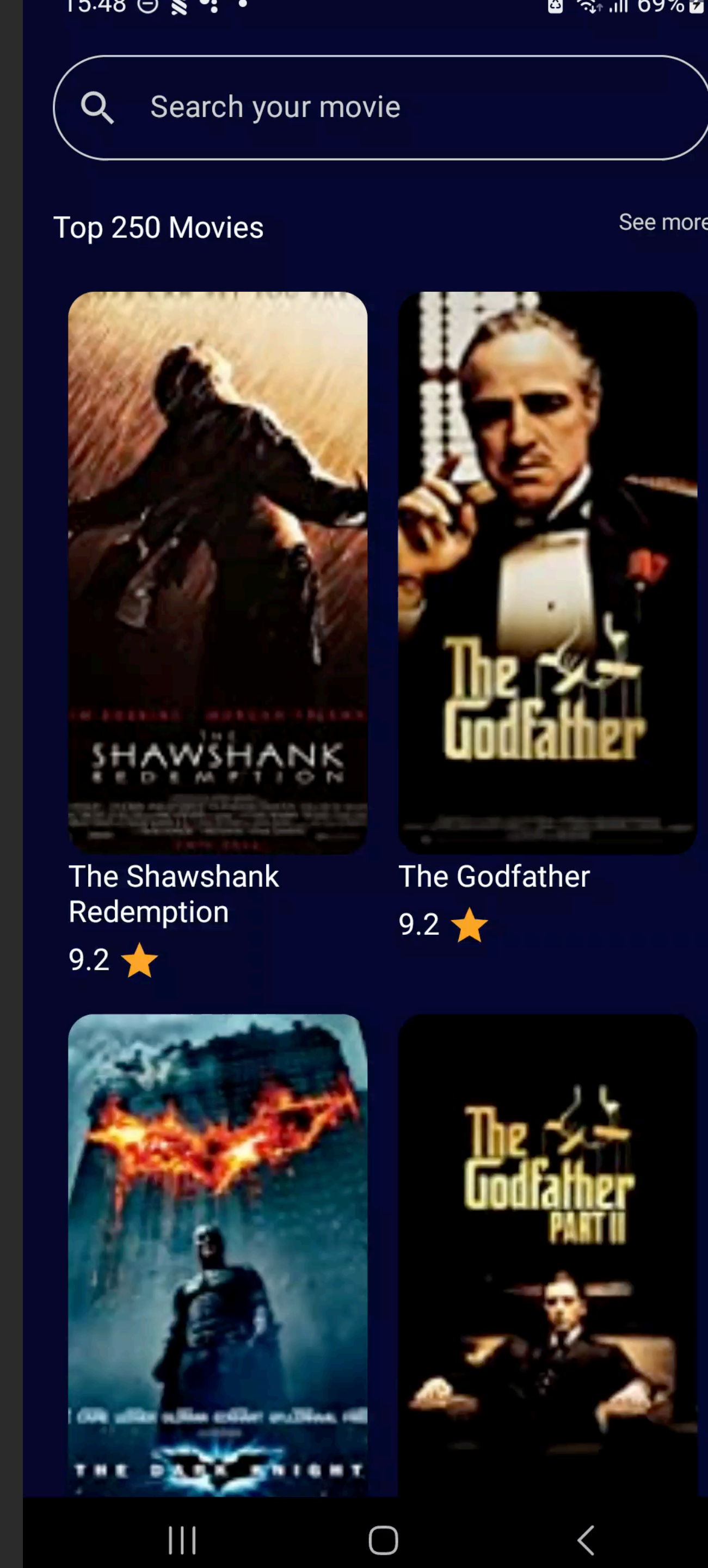
Benefits of Using Retrofit Library

- Easier to use and integrate networking functionalities 
- Request to a server are made fast and efficiently 
- Supports multiple data formats i.e **JSON**, **XML**, **Protocol Buffers** 



Course Demo App

- Build Movie Listing App with MVVM architecture
 - Libraries used:
 - Retrofit
 - HILT Dependency Injection
 - Coroutines
 - Navigation Compose
 - Coil



Section Summary

- Android apps use **Retrofit** the ability to communicate with **RESTful APIs**
- Retrofit uses **HTTP** to communicate with a server
- Client and server use **JSON** to communicate
- JSON format is in form of **key-value** pairs
- Benefits i.e **easier to use, requests are fast, supports multiple data formats** etc
- Retrofit converts the request data into JSON before sending to the server
- Retrofit converts the the response data to objects





Initial Project Setup 🛠️





Making Your First HTTP Request With Retrofit

Up Next

