

# Overview



Room - AAC

Local data source with Room

Testing local data source

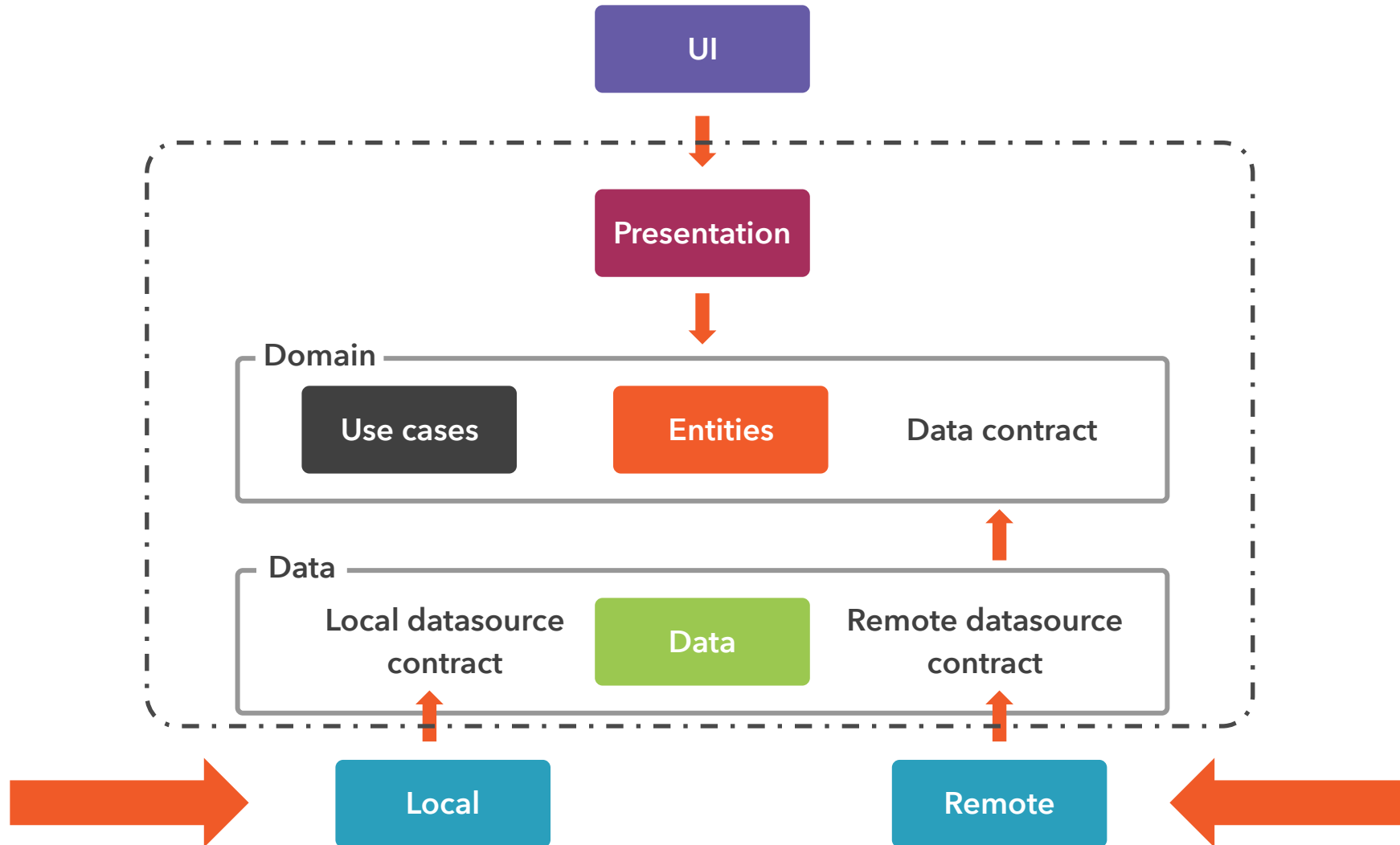
Remote data source with Retrofit

Testing remote data source

Why so many data classes?

Summary

# Banking App Layers



Yes. Switching the network  
and persistence library is  
this easy.

# Room Persistence Library

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# Major Components of Room

## @Database

- Represents a Database
- Is an abstract class
- Provides DAO (@Dao)

## @Dao

- Represents Data Access Objects
- Can be an interface or abstract class
- DB operations

## @Entity

- Represents a database table
- A POJO or Kotlin data class
- Every object is a row in database

## Why Room?

Supported by Google

No SQL for simple database operations

No boilerplate for converting data classes

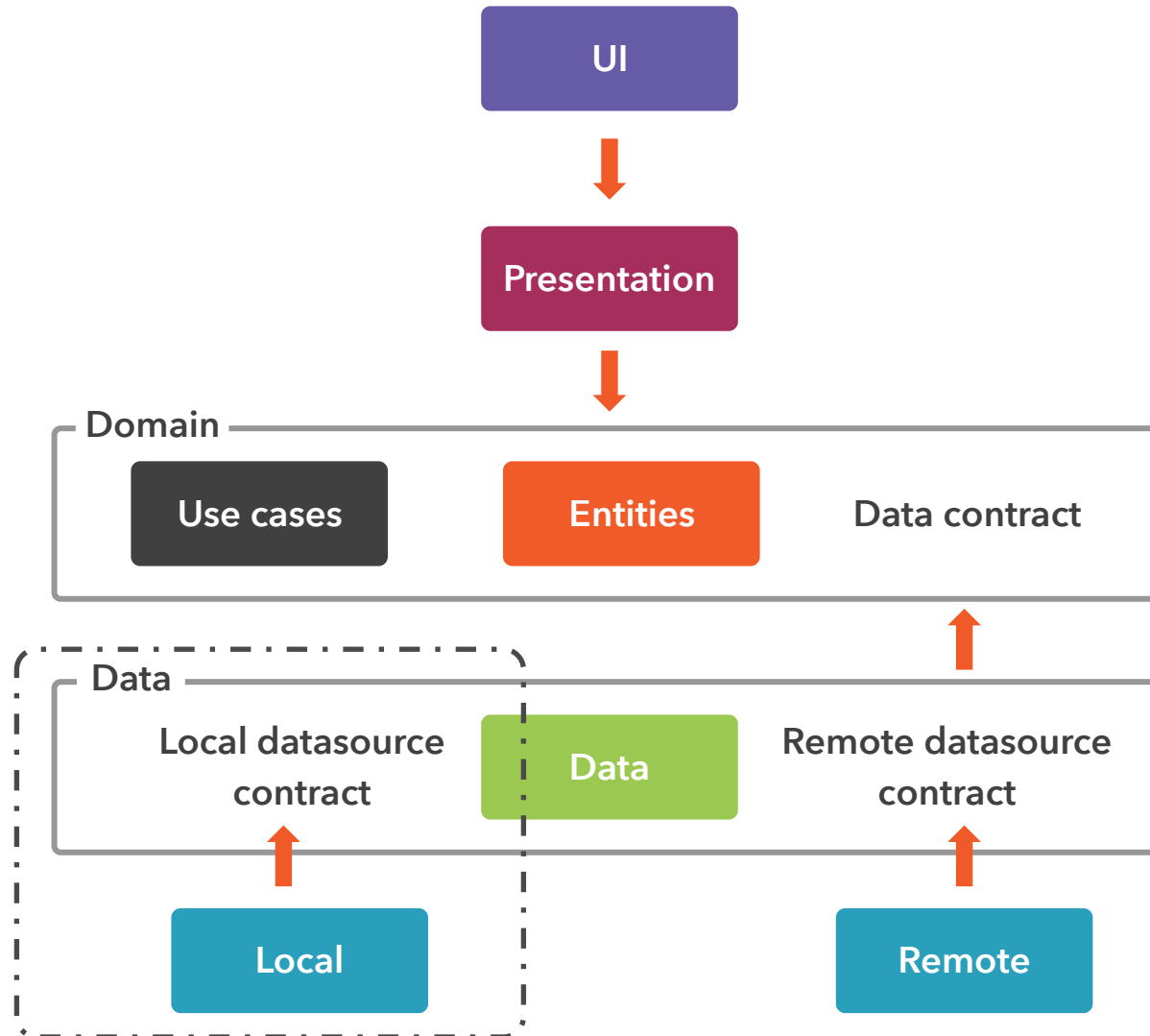
SQL Query validation in compile time

Live updates with LiveData<T>

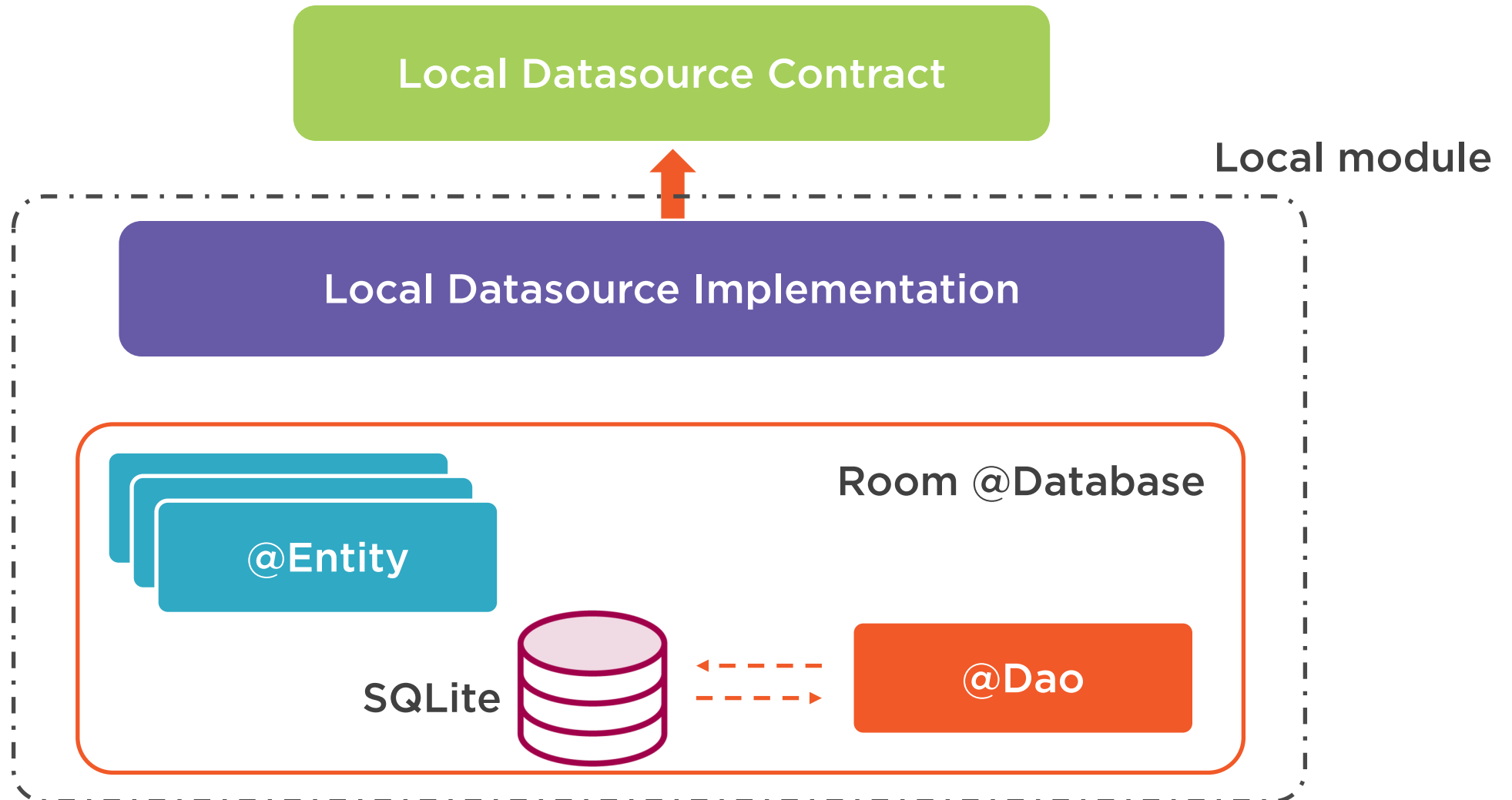
Supports RxJava Observables

Easy testing

# Local Datasource Module



# Local Datasource Module

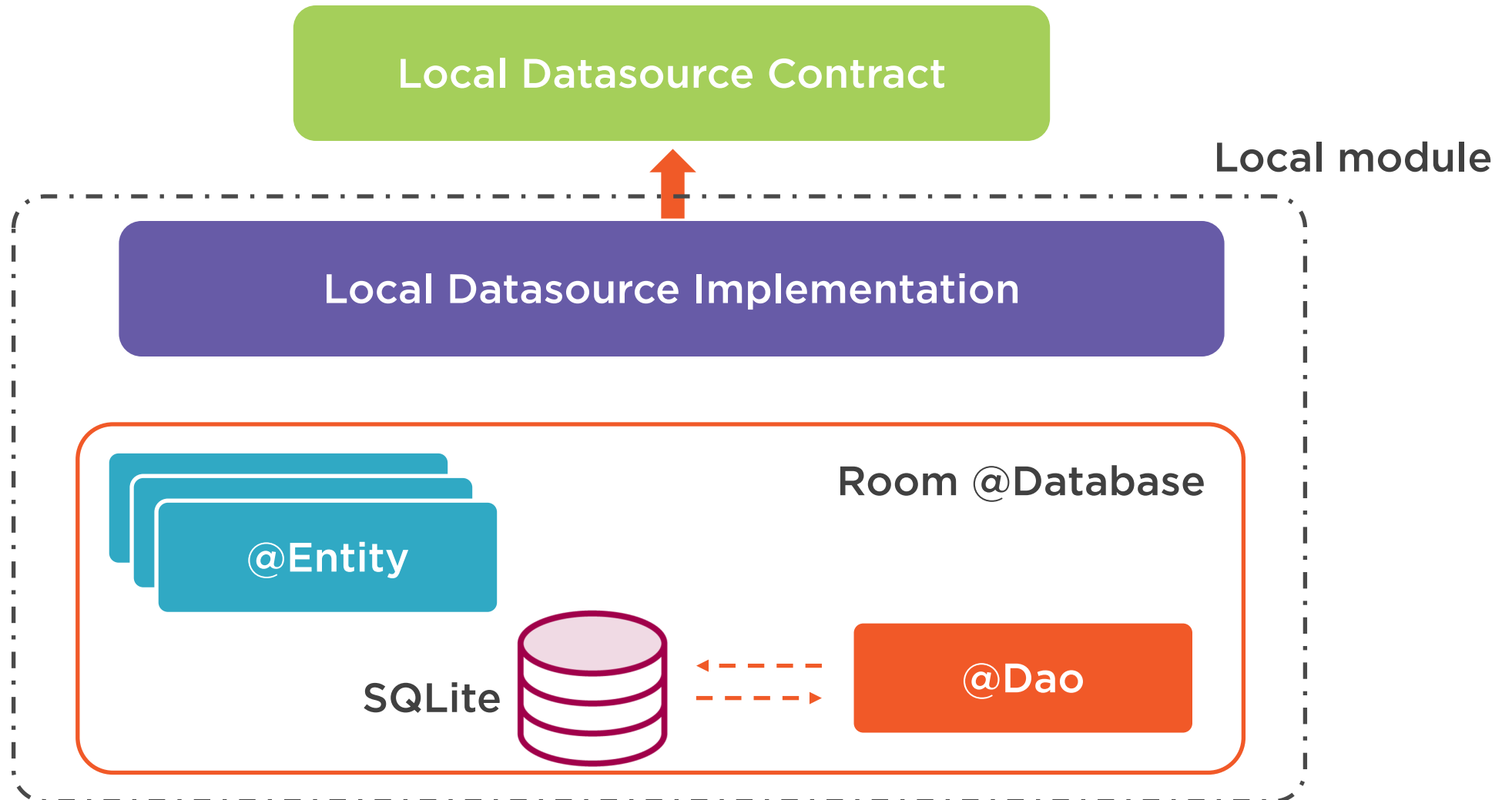




# Defining the Local Datasource

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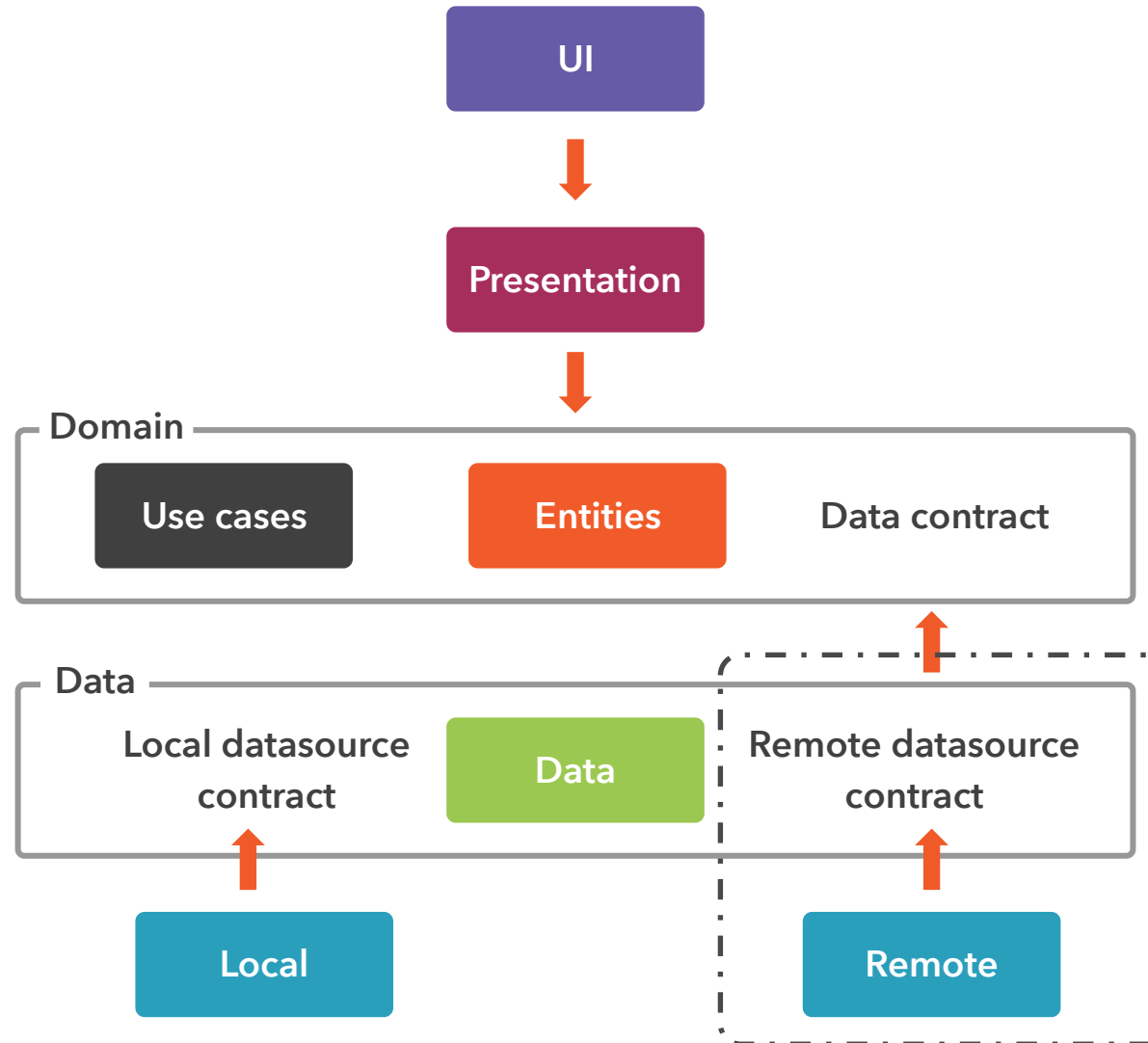
# Local Datasource Module



# Defining the Remote Datasource

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# Retrofit in the Banking App



# Why the Redundant Data Classes?

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# A Typical Data Class

```
data class User(  
    val name: String,  
    val age: Int,  
    ....  
)
```

# A Typical Data Class

```
data class User(  
    @SerializedName("user-name")  
    val name: String  
)
```

# A Typical Data Class

@Entity

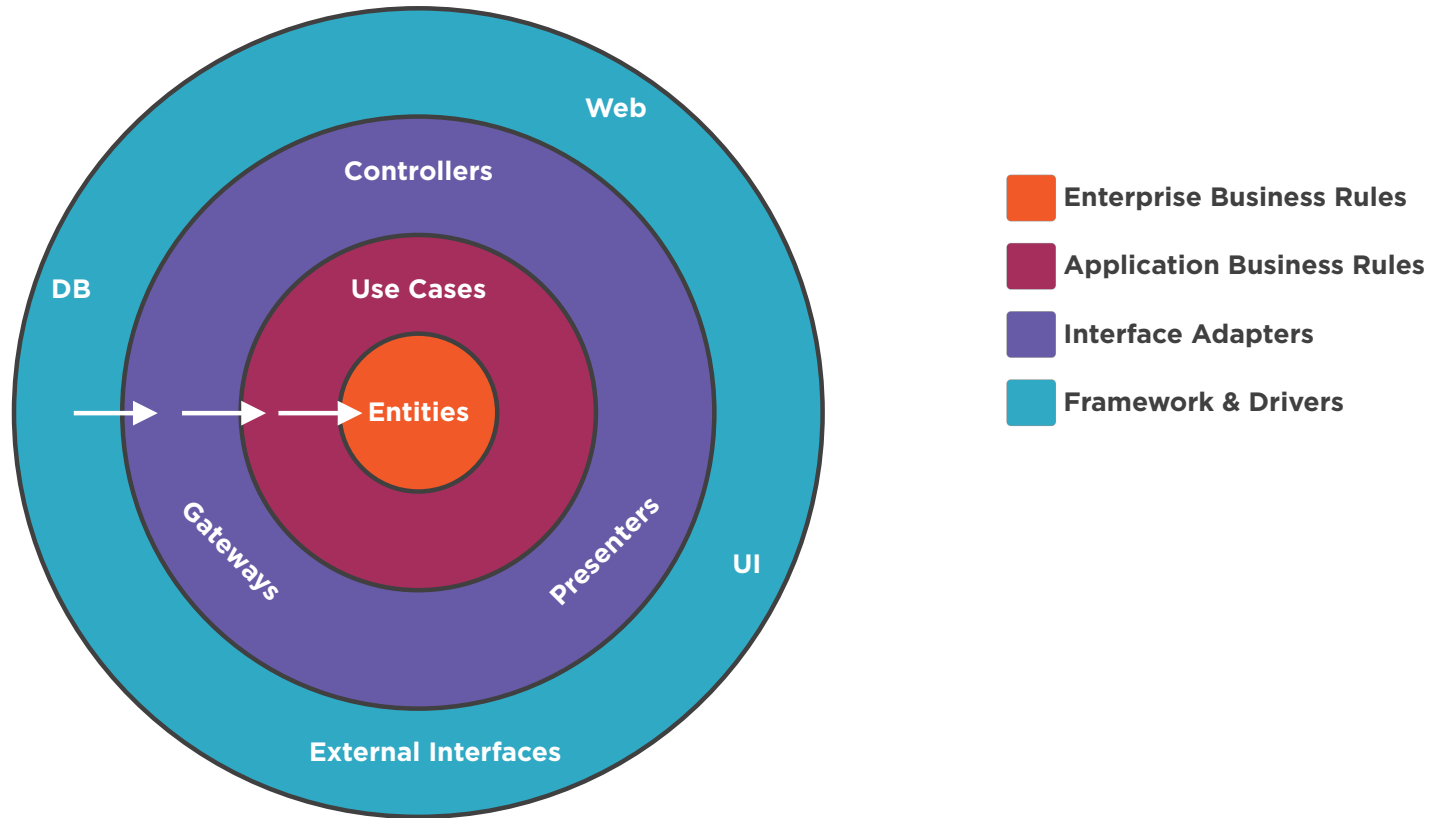
```
data class User(  
    @SerializedName("user-name")  
    @PrimaryKey  
    @ColumnInfo(name = "column_user_name")  
    val name: String  
)
```



# A Typical Data Class

```
@Entity(name)
data class User(
    @SerializedName("user-name")
    @PrimaryKey
    @ColumnInfo(name = "column_user_name")
    @Exclude
    val name: String
)
```

# Layers of CLEAN Architecture



# Summary



Room – AAC

Local data source layer with Room

Unit and instrumentation testing

Networking with Retrofit

Remote layer with Retrofit

Remote layer testing

Reason for duplicate data classes