

Working with Room



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Overview



Implement Room

Understand Entity, DAO and Database

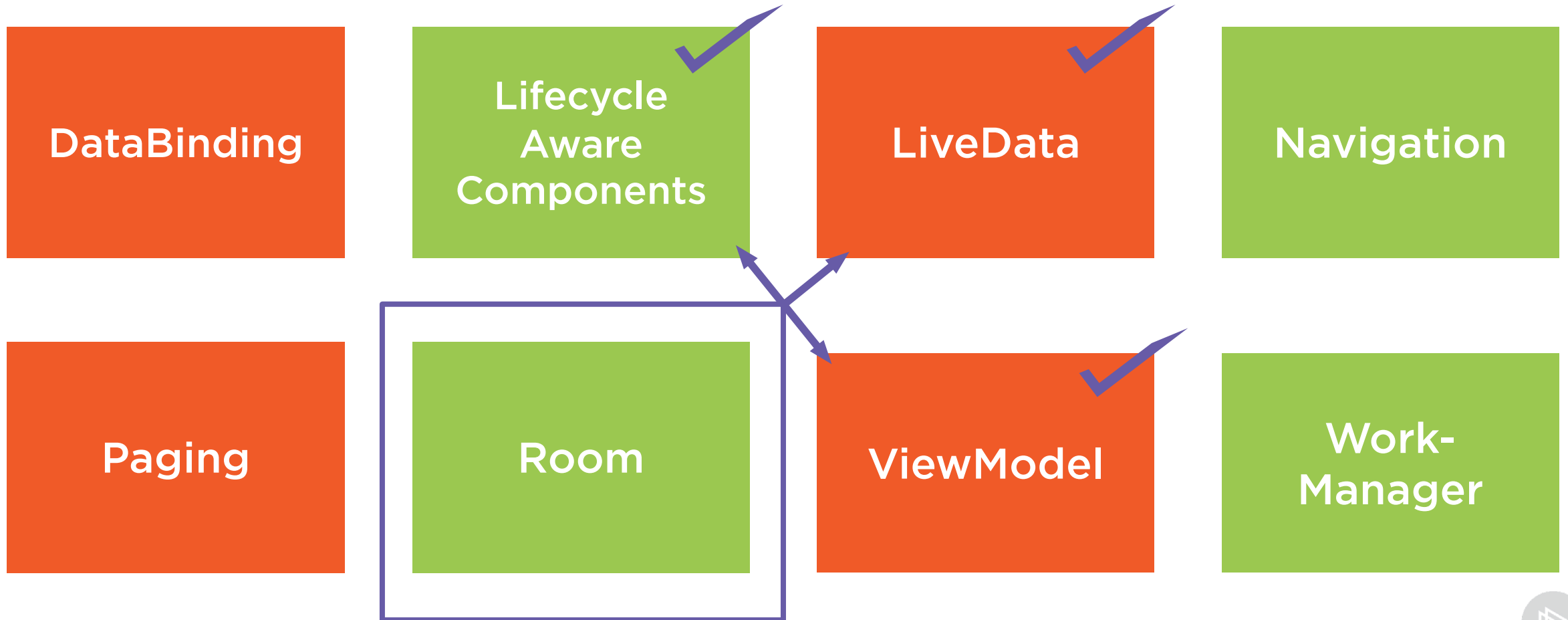
**Start working on the BookKeeper app to
insert data**



Setting up Room



Android Room Database



Components of Room

Entities

- Defines schema of database table
- Annotated with `@Entity`

DataAccessObject

- Contains methods to access DB
- Annotated with `@Dao`

Database

- Database Holder Class
- Annotated with `@Database`



Demo



Adding dependencies

Creating components of Room

- Entity
- Dao
- Database

Performing insert operation



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Annotations for Entity

@Entity

- To annotate entity class

@PrimaryKey

- To define a field as primary key

@ColumnInfo

- To define a different column name

@Ignore

- To ignore a field in the entity

@ForeignKey

- To define relationship with other entity



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Annotations for Dao

@Dao

- To annotate Dao interface

@Insert

- To implement insert operation

@Update

- To implement update operation

@Delete

- To implement delete operation

@Query

- To perform read/write operation
- Verified at the compile time



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```
@Database(entities = [BookEntity.class], version = 1)
abstract class BookRoomDatabase: RoomDatabase() {
    abstract fun bookDao(): BookDao

    // acquire instance of DB using Room.databaseBuilder()
}
```

Database Class for Room



Demo



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Viewing Database Content from Android Studio



View Database
Content from
Android Studio

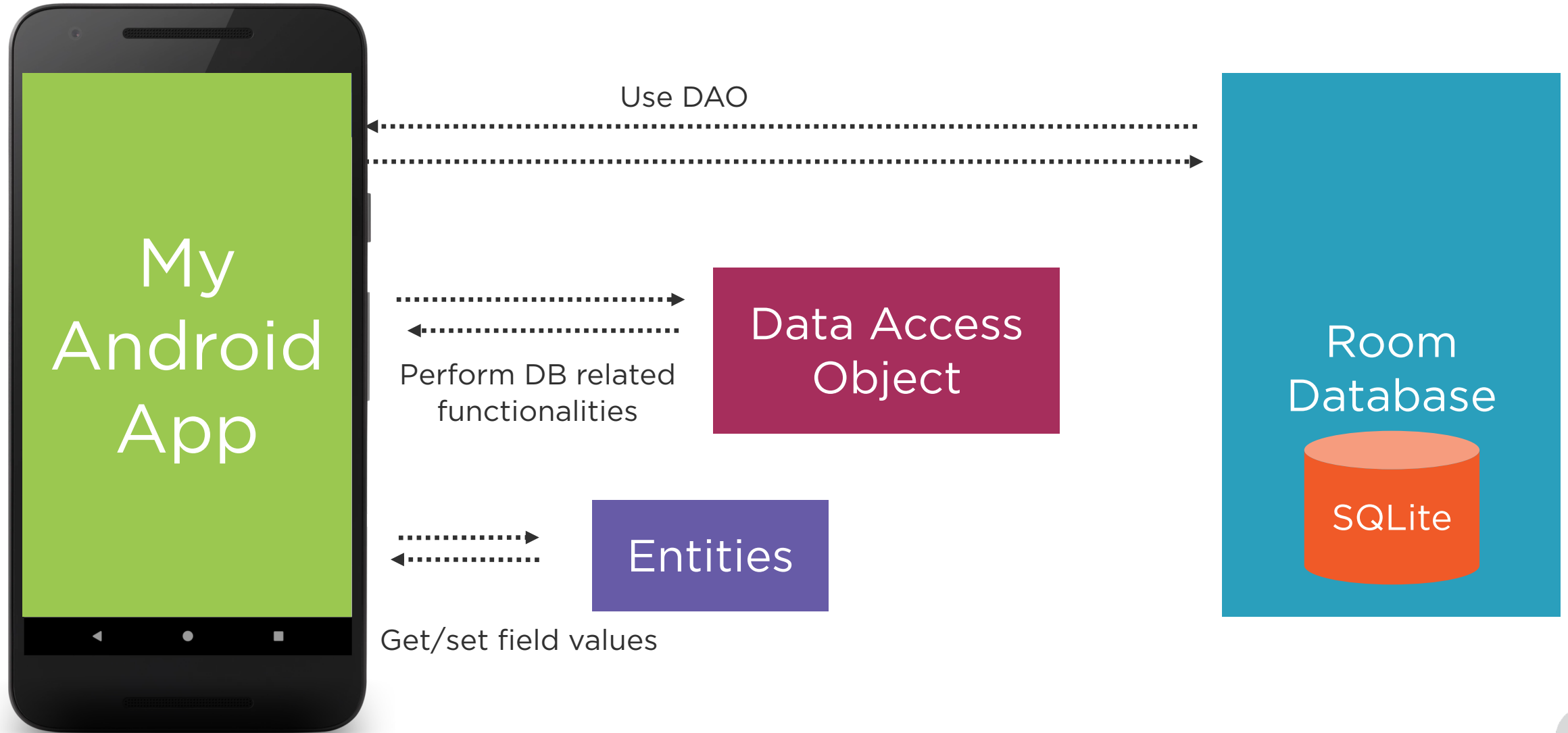
Install the DB SQLite Manager

Browse to the DB in your emulator

Download it and view



Components of Room and Relation with App



Summary



Create the new note activity and layout file

Set up the entity

Declare method in **DAO** to insert book

Create the wrapper for **insert()** method in ViewModel

Make it work on the non-ui thread by using **AsyncTask**

Connect the UI to the database

