

Android Development



Data Persistence

- **Preferences**

- Shared Preferences**

- Data Store**

- **DB**

- **SQLITE**
 - **Room Database (ORM)**

Orm

- Realm**

Data Persistence

Shared Preferences

`getSharedPreferences()`



Call with name

`getPreferences()`



From Activity



Context

Data Persistence

Shared Preferences

Key - value

Read - context

Write - edit

Save - apply - commit

Data Persistence

Room

```
val room_version = "2.7.0"

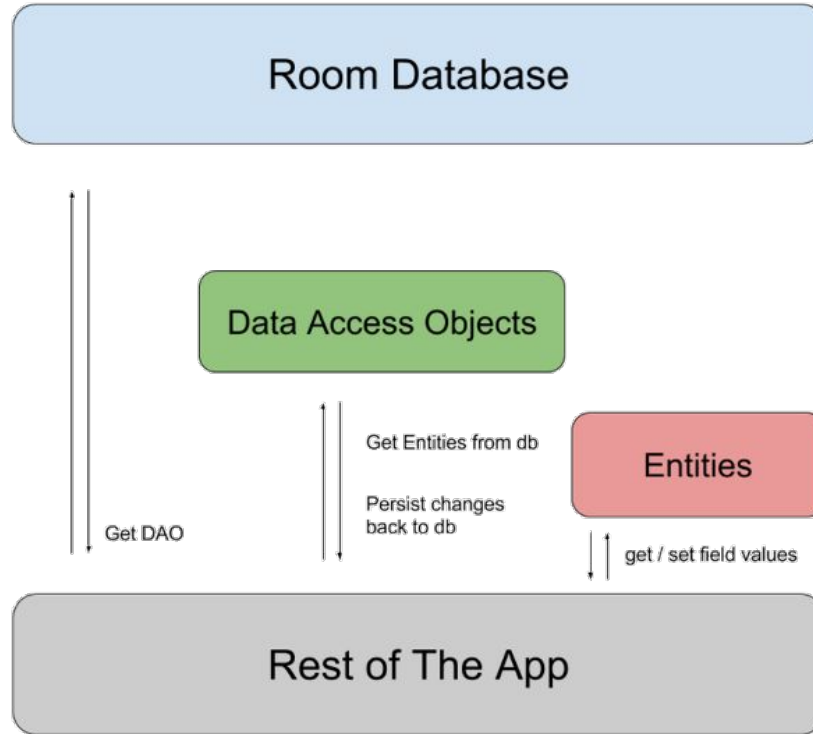
implementation("androidx.room:room-runtime:$room_version")
// If this project uses any Kotlin source, use Kotlin Symbol Processing (KSP)
// See Add the KSP plugin to your project
ksp("androidx.room:room-compiler:$room_version")
// If this project only uses Java source, use the Java annotationProcessor
// No additional plugins are necessary
annotationProcessor("androidx.room:room-compiler:$room_version")
// optional - Kotlin Extensions and Coroutines support for Room
implementation("androidx.room:room-ktx:$room_version")
// optional - RxJava2 support for Room
implementation("androidx.room:room-rxjava2:$room_version")
// optional - RxJava3 support for Room
implementation("androidx.room:room-rxjava3:$room_version")
// optional - Guava support for Room, including Optional and ListenableFuture
implementation("androidx.room:room-guava:$room_version")
```

```
lifecycleVersion = '2.3.1'

// Lifecycle components
implementation "androidx.lifecycle:lifecycle-viewmodel-ktx:$rootProject.lifecycleVersion"
implementation "androidx.lifecycle:lifecycle-livedata-ktx:$rootProject.lifecycleVersion"
implementation "androidx.lifecycle:lifecycle-common-java8:$rootProject.lifecycleVersion"
```

```
implementation "androidx.activity:activity-ktx:1.2.3"  
implementation "androidx.fragment:fragment-ktx:1.3.3"
```

Data Persistence - Room



Data Persistence

Entity

@Entity

Dao

@Dao

Database

@Database

Entity - Dao

Data Persistence

```
val db = Room.databaseBuilder(  
    applicationContext,  
    AppDatabase::class.java, "database-name"  
).build()
```

Project

Create a functional app that uses

- Theme and styles
- RecyclerView
- Navigation component with fragments
- Bundle (send and receive data with fragments)
- API requests (Retrofit) <https://github.com/public-apis/public-apis> or any other
- At least one runtime permission
- Data persistence (SharedPreferences and Room)

Send the project compressed to alvaro.saavedra@jalasoft.com or teams

Due Date: 28-04-2025 23:59pm