Android Architecture Components

A collection of libraries that help you design robust, testable, and maintainable apps. Start with classes for managing your UI component lifecycle and handling data persistence.

Now 1.0 stable

Manage your app's lifecycle with ease

New lifecycle-aware components help you manage your activity and fragment lifecycles. Survive configuration changes, avoid memory leaks and easily load data into your UI using LiveData, ViewModel, LifecycleObserver and LifecycleOwner.

Try a codelab

View the docs

Get the sample project

# Room: a SQLite object mapping library

Avoid boilerplate code and easily convert SQLite table data to Java objects using [Room](https://developer.android.google.cn/topic/libraries/architecture/room.html). Room provides compile time checks of SQLite statements and can return RxJava, Flowable and LiveData observables.

[Try a codelab](https://codelabs.developers.google.com/codelabs/android-persistence/#0)

[View the docs](https://developer.android.google.cn/topic/libraries/architecture/room.html)

[Get the sample project](https://github.com/googlesamples/android-architecture-components)

# Paging: Load data as you need it

The [Paging](https://developer.android.google.cn/topic/libraries/architecture/paging.html) library makes it easier for your app to gradually load information as needed from a local or remote data source, without overloading the device or waiting too long for a big database query.

The Paging library is currently in alpha.

[View the docs](https://developer.android.google.cn/topic/libraries/architecture/paging.html)

[Get the sample projects](https://github.com/googlesamples/android-architecture-components)