ViewModel APIs cheat sheet

v1.0 by @AndroidDev

This cheat sheet lists the ViewModel APIs in Jetpack. It includes the artifact where they can be found, the scope of the returned ViewModel instance, and an example of how to use them.

You can scope ViewModel instances to a ViewModelStoreOwner. The owner can be an Activity, Fragment, Navigation graph, a destination of a Navigation graph, or your own custom owner.

For more use cases and to learn about ViewModel factories: [goo.gl/architecture-viewmodel](http://goo.gl/architecture-viewmodel)

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### Get an instance in Jetpack Compose

**Compose - lifecycle.lifecycle-viewmodel-compose**

```
Compose = viewModel() 
@Composable
fun MyScreen(vm: ViewMode = viewModel()) { ... }
```

```
Compose = viewModel(vmStoreOwner) 
@Composable
fun MyScreen(vm: ViewMode = viewModel()) { ... }
```

// Example of getting a ParentViewModel instance scoped to the Navigation graph
composable("myScreen") { backStackEntry ->
  val parentEntry = remember(backStackEntry) {
    navController.getBackStackEntry("parentNavigationRoute")
  }
  val parentViewModel = viewModel<ParentViewModel>(parentEntry)
  ...
}

---

### Get an instance in an Activity

**Activity - activity.activity-activity-ktx**

```
by viewModels() Activity(ViewModelStoreOwner)
val vm: MyViewModel by viewModels()
```

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### Get an instance in a Fragment

**Fragment - fragment.fragment-fragment-ktx**

```
by viewModels() Fragment(ViewModelStoreOwner)
val vm: MyViewModel by viewModels()
```

```
by viewModels(ownerProducer) any ViewModelStoreOwner
val vm: SharedViewModel by viewModels(ownerProducer = { requireParentFragment() })
```

```
by activityViewModels() Activity(ViewModelStoreOwner)
val vm: SharedViewModel by activityViewModels()
```

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### Core ViewModel API

**ViewModel - lifecycle.lifecycle-viewmodel-ktx**

```
ViewModelProvider any ViewModelStoreOwner
val vm = ViewModelProvider(anyViewModelStoreOwner).MyViewModel::class.java
```

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The APIs and artifacts listed in this page follow this template.