

IMPLANTANDO TESTES FUNCIONAIS HERMÉTICOS



THE
DEVELOPER'S
CONFERENCE

DESENVOLVEDOR DE SOFTWARE – MOBILE



@orogersilva



@orogersilva



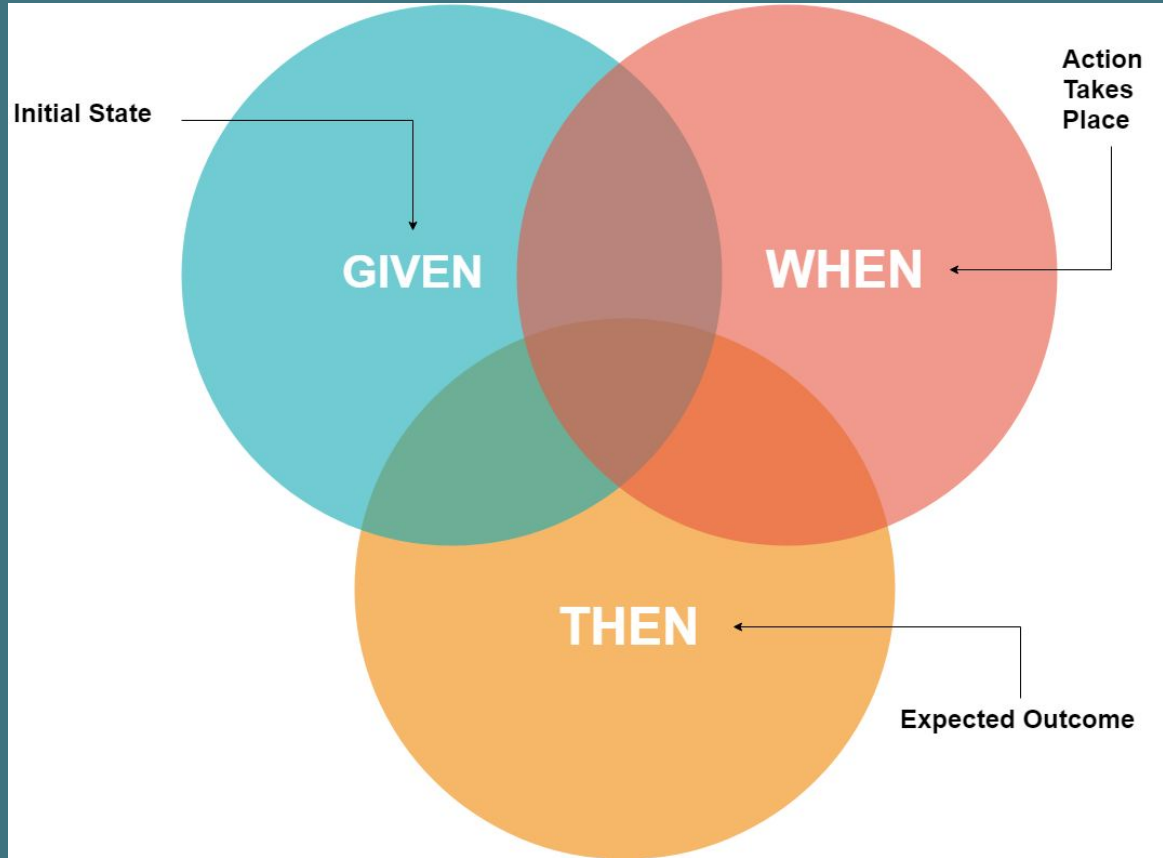
@orogersilva

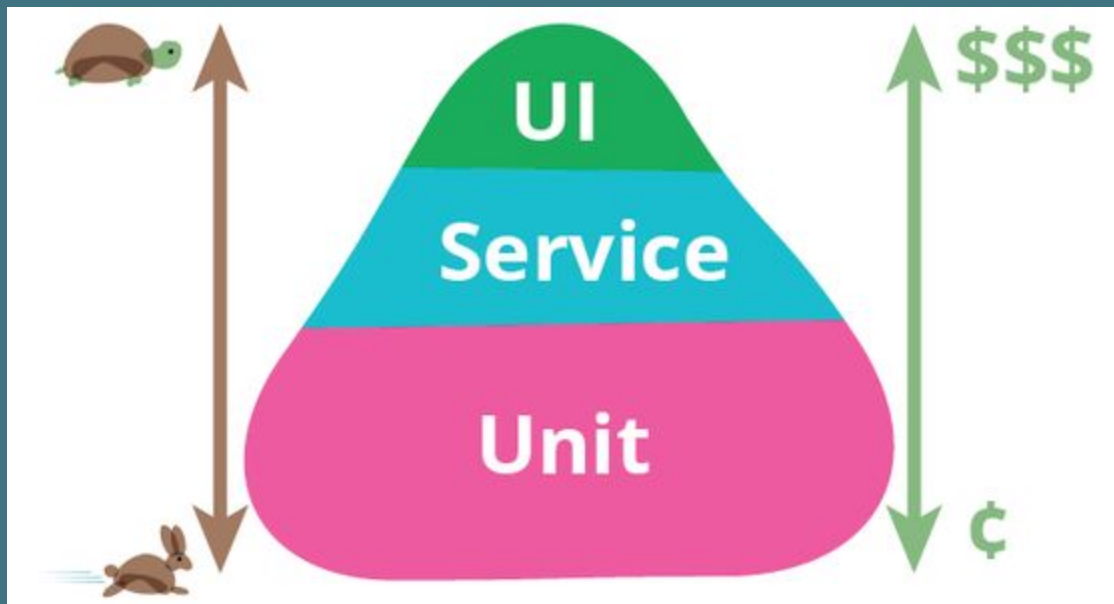
TESTES DE UI

As a <user role>

I want <goal>

so that <benefit>.





Android Testing Pyramid



TESTES NÃO-HERMÉTICOS


```
class SignUpStepOneUseCase : KoinTest {

    @get:Rule var intentsTestRule:
        IntentsTestRule<SignUpStepOneActivity> =
            IntentsTestRule(SignUpStepOneActivity::class.java, false, false)

    @Test fun
    GivenIWantToGoToSignUpStepTwoWhenAllValidInputsAreProvidedThenGoToSignUpStepTwoSuccessfully() {

        // ARRANGE

        val USER_FIRST_NAME = "Mr"
        val USER_SURNAME = "Paulo da Silva"
        val USER_FULLNAME = "$USER_FIRST_NAME $USER_SURNAME"
        val USER_BIRTHDATE = "28/07/1972"
        val USER_BIRTHDATE_TIMESTAMP = 81140400000L
        val USER_CPF = "54676233116"
        val UNIQUE_ID = "b760513c4ba53893"

        intentsTestRule.launchActivity(null)

        // ACT

        onView(withId(R.id.fullNameEditText)).perform(typeText(USER_FULLNAME), closeSoftKeyboard())
        onView(withId(R.id.birthdateEditText)).perform(typeText(USER_BIRTHDATE), closeSoftKeyboard())
        onView(withId(R.id.cpfEditText)).perform(typeText(USER_CPF), closeSoftKeyboard())

        onView(withId(R.id.nextButton)).perform(click())

        // ASSERT

        intended(hasExtra(Actions.SignUp.Keys.EXTRA_USER_FIRST_NAME, USER_FIRST_NAME))
    }
}
```

TESTES HERMÉTICOS

SÃO CONFIÁVEIS

SÃO VELOZES

E SÃO...

HARD

COMO BUSCAR A HERMETICIDADE?

API


```
MockWebServer server = new MockWebServer();

// Schedule some responses.
server.enqueue(new MockResponse().setBody("hello world!"));
server.enqueue(new MockResponse().setBody("hello dog!"));

// Start the server.
server.start();

// Ask the server for its URL. You'll need this to make HTTP requests.
HttpUrl baseUrl = server.getUrl("/v1/chat/");

// Exercise your application logic, which should make the HTTP requests.
// Responses are returned in the order they were enqueued.
Chat chat = new Chat(baseUrl);

chat.loadMore();
assertEquals("hello world!", chat.getResponse());

chat.loadMore();
assertEquals("hello dog!", chat.getResponse());

chat.loadMore();
assertEquals("hello dog!", chat.getResponse());

chat.loadMore();
assertEquals("hello dog!", chat.getResponse());
```

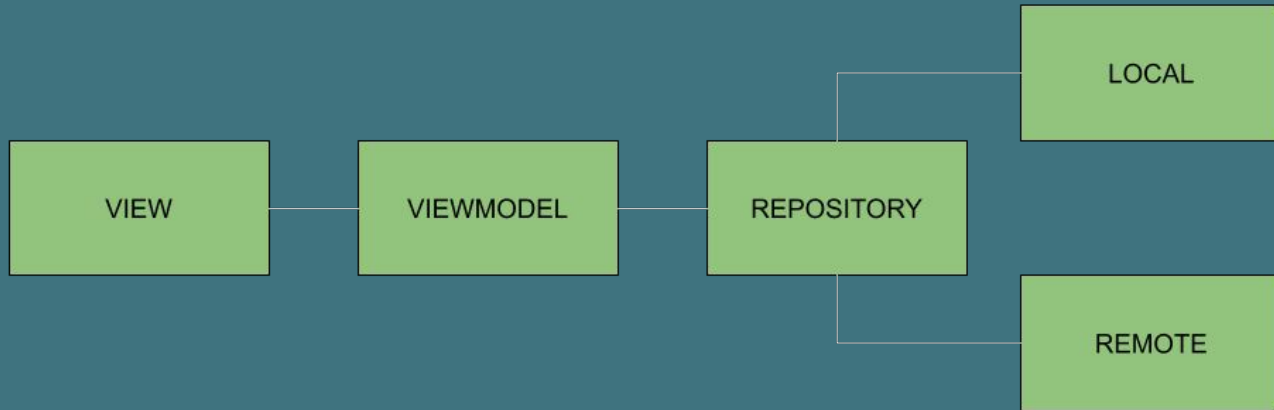


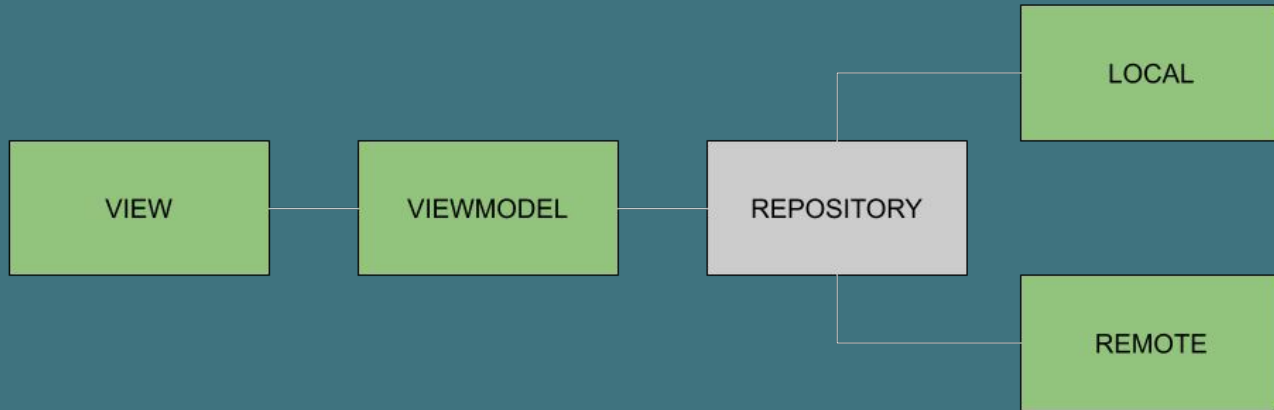
MockWebServer

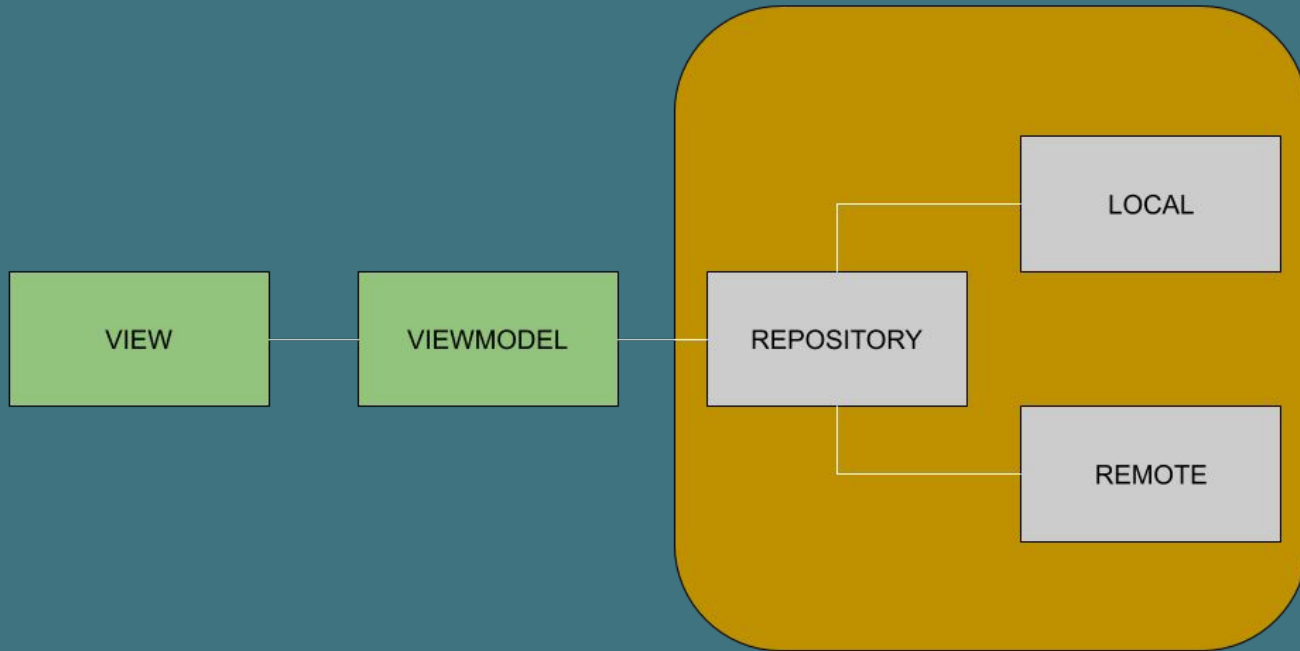




ABSTRAÇÃO DE CAMADA ARQUITETURAL







```

class SignUpStepOneUseCase : KoinTest {

    @get:Rule var intentsTestRules:
    IntentsTestRule<SignUpStepOneActivity> =
        IntentsTestRule(SignUpStepOneActivity::class.java, false, false)

    private val koinModules = listOf(
        authDataRepositoryModule,
        commandInjectorModule,
        customerDataRepositoryModule,
        signUpViewModelModule
    )

    @Before fun setUp() {
        loadKoinModules(koinModules)
    }

    @Test fun
    GivenIWantToGoToSignUpStepTwoWhenAllValidInputsAreProvidedThenGoToSignUpStepTwoSuccessfully() {
        // ARRANGE

        val USER_FIRST_NAME = "Mr"
        val USER_SURNAME = "Paulo da Silva"
        val USER_FULLNAME = "${USER_FIRST_NAME} $USER_SURNAME"
        val USER_BIRTHDATE = "28/07/1972"
        val USER_BIRTHDATE_TIMESTAMP = 0114040000L
        val USER_CPF = "5467233116"
        val UNIQUE_ID = "b769513c4ba53893"

        declareMock<CustomerRepository>()
        declareMock<SignUpRepository>() {
            val serviceCallBackCaptor = argumentCaptor<ServiceCallback<Any>>()

            given(startCreation(eq(USER_CPF), eq(USER_FULLNAME), eq(USER_BIRTHDATE_TIMESTAMP),
                eq(UNIQUE_ID), serviceCallBackCaptor.capture()))
                .willReturn {
                    serviceCallBackCaptor.firstValue.onSuccess(null, 0, null)
                }

            given(checkUserHasOnceInconsistentData(false)).willReturn { }
        }

        intentsTestRules.launchActivity(null)

        // ACT

        onView(withId(R.id.fullNameEditText)).perform(typeText(USER_FULLNAME), closeSoftKeyboard())
        onView(withId(R.id.birthdateEditText)).perform(typeText(USER_BIRTHDATE), closeSoftKeyboard())
        onView(withId(R.id.cpfEditText)).perform(typeText(USER_CPF), closeSoftKeyboard())

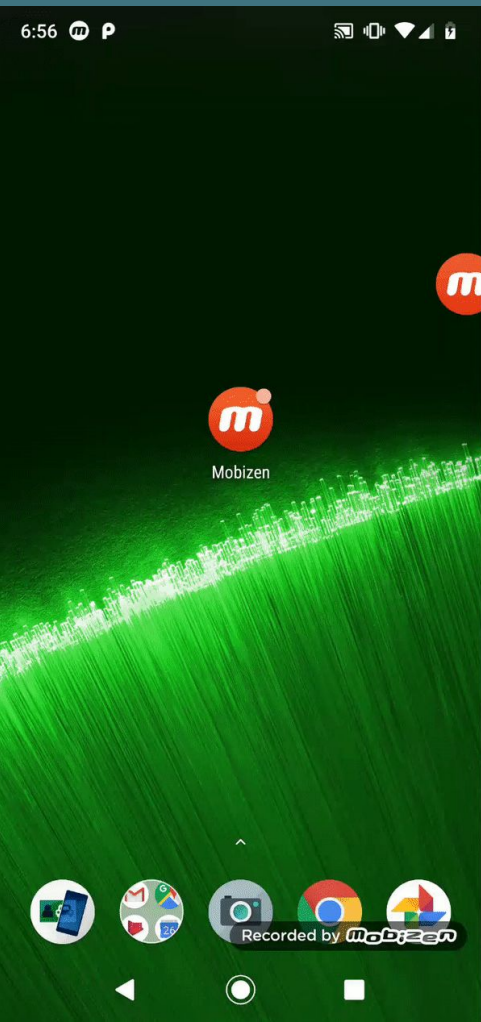
        onView(withId(R.id.nextButton)).perform(click())

        // ASSERT

        intended(hasExtra(Actions.SignUp.Keys.EXTRA_USER_FIRST_NAME, USER_FIRST_NAME))
    }

    @After fun tearDown() {
        unloadKoinModules(koinModules)
    }
}

```



DIFICULDADES





StandAloneContext Koin instance is null - With ViewModel in multi module project #380

Edit

New Issue



Closed orogersilva opened this issue on Feb 25 · 3 comments



orogersilva commented on Feb 25 • edited



Describe the bug

I'm implementing instrumented tests with Espresso framework and Koin. But, when I run one test method, this error is shown:

```
java.lang.IllegalStateException: StandAloneContext Koin instance is null
    at org.koin.standalone.StandAloneContext.getKoin(StandAloneContext.kt:63)
    at org.koin.standalone.KoinComponentKt.getKoinContext(KoinComponent.kt:42)
    at org.koin.standalone.KoinComponentKt.access$getKoinContext(KoinComponent.kt:1)
    at org.koin.standalone.KoinComponent$DefaultImpls.getKoin(KoinComponent.kt:36)
    at org.koin.androidx.viewmodel.ext.android.LifecycleOwnerExtKt.makeViewModelProvider$1.getKoin(LifecycleOwnerExt.kt:124)
    at org.koin.standalone.KoinComponentKt.get(KoinComponent.kt:73)
    at org.koin.standalone.KoinComponentKt.getDefault(KoinComponent.kt:74)
    at org.koin.androidx.viewmodel.ext.android.LifecycleOwnerExtKt.makeViewModelProvider$1.create(LifecycleOwnerExt.kt:124)
    at androidx.lifecycle.ViewModelProvider.get(ViewModelProvider.java:135)
    at androidx.lifecycle.ViewModelProvider.get(ViewModelProvider.java:103)
```

The error occurs when the flow reaches the viewModel contained in the Activity:

```
private val signUpStepOneViewModel by viewModel<SignUpStepOneViewModel>()
```

```
▼  signUpStepOneViewModel = (IllegalStateException@5670) "java.lang.IllegalStateException: StandAloneContext Koin instance is null"
  ▶  backtrace = (Object[33]@5716)
  ▶  cause = (IllegalStateException@5670) "java.lang.IllegalStateException: StandAloneContext Koin instance is null"
  ▶  detailMessage = "StandAloneContext Koin instance is null"
  ▶  stackTrace = (StackTraceElement[32]@5720)
  ▶  suppressedExceptions = (Collections$EmptyList@5721) size = 0
  ▶  shadow$_klass_ = (Class@4241) "class java.lang.IllegalStateException" ... Navigate
  ▶  shadow$_monitor_ = 1232456822
```

To Reproduce

I created a sample project with similar characteristics to the project in which occurred the error:

<https://github.com/orogersilva/appforusingkoin-android>

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Notifications

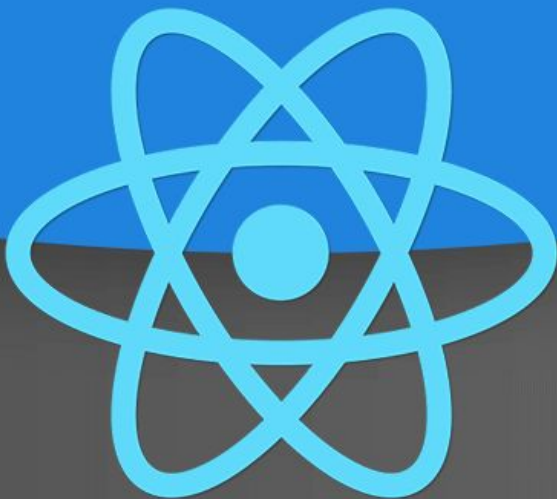
Customize

Unsubscribe

You're receiving notifications because you authored the thread.

3 participants









REFERÊNCIA SOBRE TESTES HERMÉTICOS

- <https://slack.engineering/android-ui-automation-part-1-building-trust-de3deb1c5995>
- <https://android-developers.googleblog.com/2015/12/leveraging-product-flavors-in-android.html>
- <https://testing.googleblog.com/2016/05/flaky-tests-at-google-and-how-we.html>
- <https://bitbar.com/blog/strive-for-hermetic-testing-but-never-compromise-integrity-of-app/>
- <https://hackernoon.com/flaky-tests-a-war-that-never-ends-9aa32fdef359>

OBRIGADO!

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