Automation for Android

Siam Chamnankit Co., Ltd., Odd-e (Thailand) Co., Ltd. and Alliance

End-to-End test

System Under Test (SUT)

User's Client → Frontend Server → Data Backend / Photos Backend
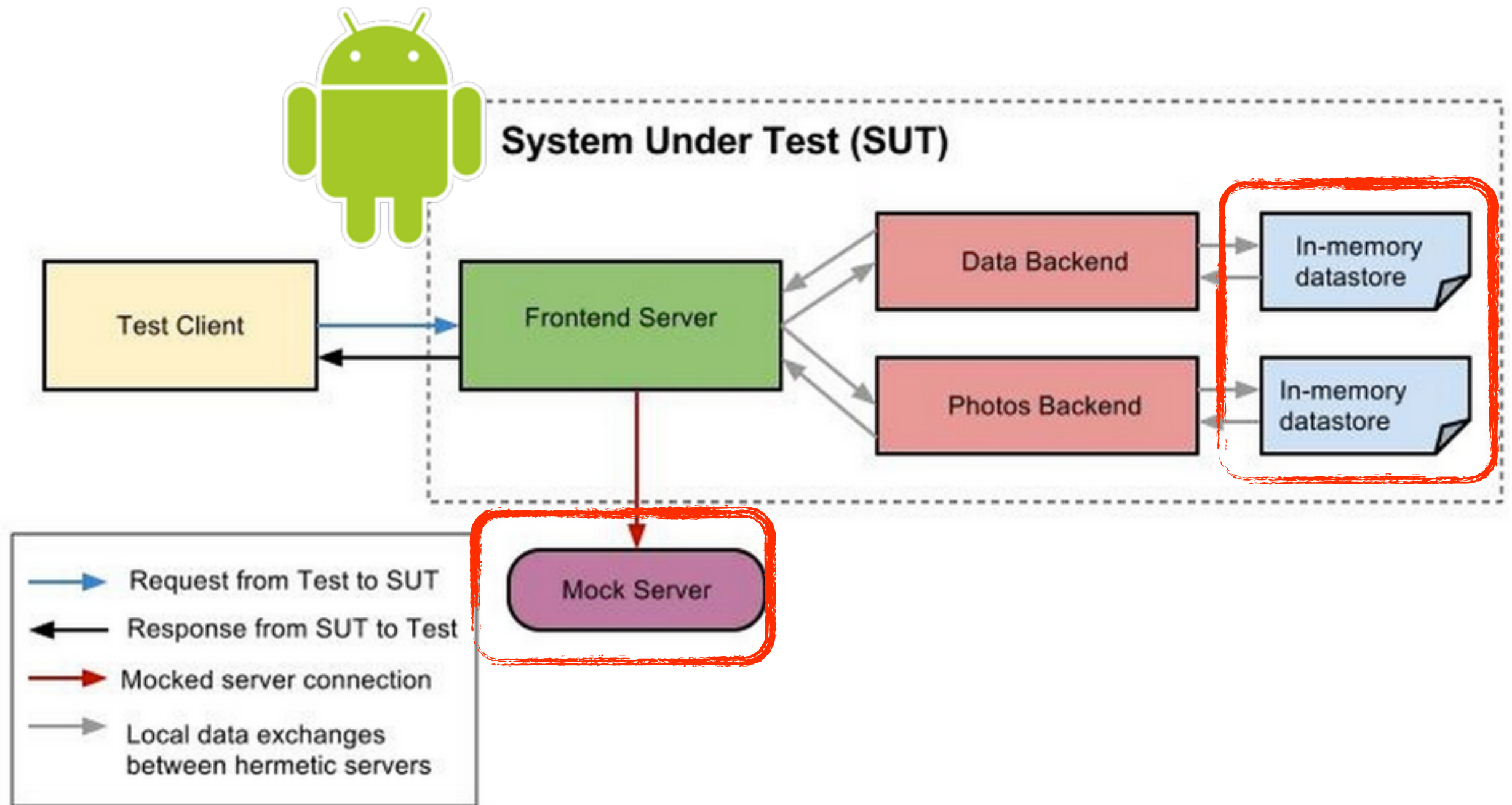
Another Backend

Request from User
Response to User

End-to-End test

End-to-End test

System Under Test (SUT)

Test Client
Frontend Server
Data Backend
Photos Backend
In-memory datastore
In-memory datastore
Mock Server

Request from Test to SUT
Response from SUT to Test
Mocked server connection
Local data exchanges between hermetic servers
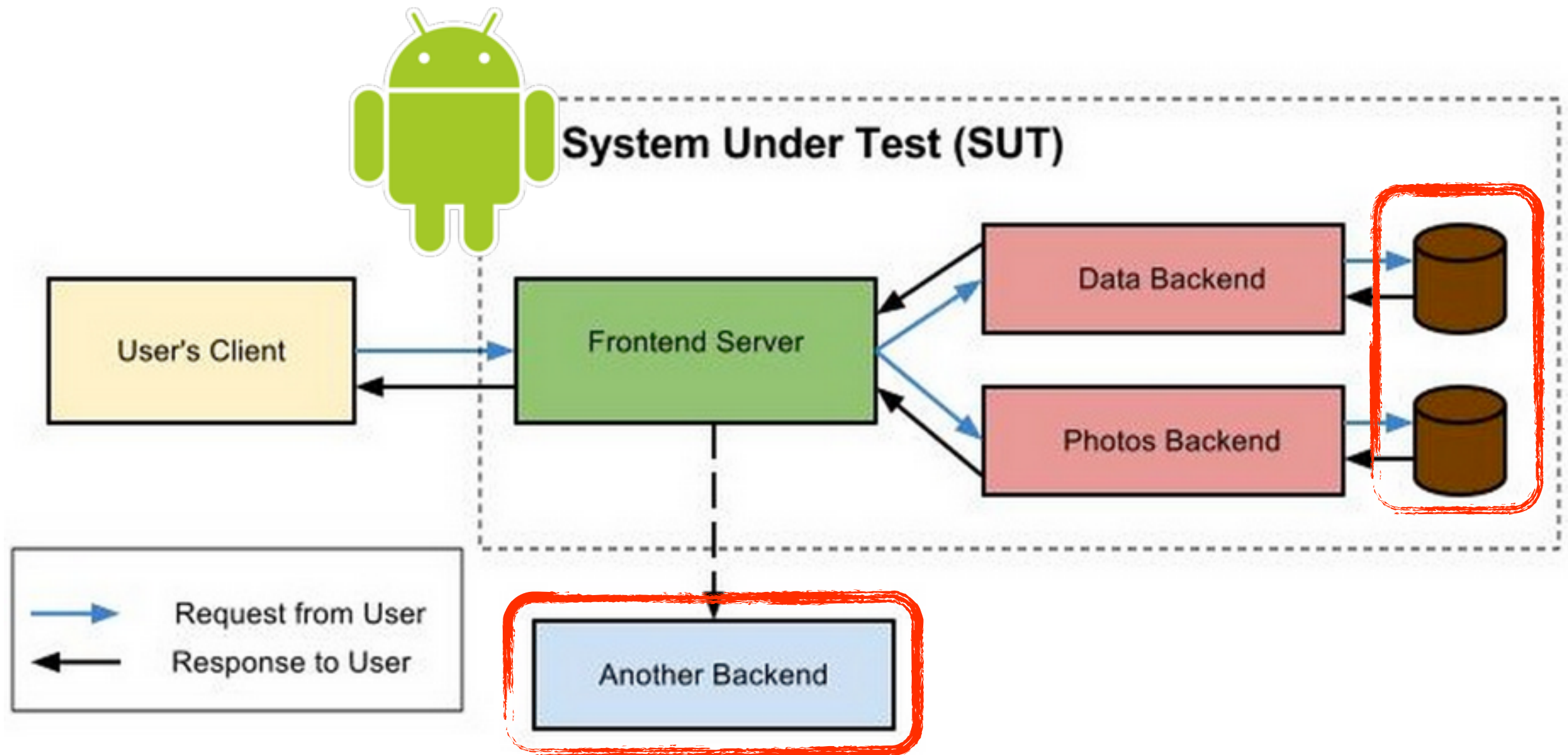
How to solve problem ?

1. Setup a test server

2. Mocking

3. Stubby, WireMock

WireMock

Stubbing and mocking web services
for HTTP server

http://wiremock.org/

```
        /$$      /$$ /$$                                    /$$      /$$                      /$$
       | $$  /$ | $$|__/                                   | $$$    /$$$                     | $$
       | $$ /$$$| $$ /$$  /$$$$$$   /$$$$$$  | $$$$  /$$$$ /$$$$$$   /$$$$$$$| $$   /$$
       | $$/$$ $$ $$| $$ /$$__  $$ /$$__  $$| $$ $$/$$ $$ /$$__  $$ /$$_____/| $$  /$$/
       | $$$$_  $$$$| $$| $$  \__/| $$$$$$$$| $$  $$$| $$| $$ \ $$| $$      | $$$$$$/
       | $$$/ \  $$$| $$| $$      | $$_____/| $$\  $ | $$| $$ | $$| $$      | $$_  $$
       | $$/   \  $$| $$| $$      |  $$$$$$$| $$ \/  | $$|  $$$$$$/|  $$$$$$$| $$ \  $$
       |__/     \__/|__/|__/       _____/|__/     |__/ _____/ _____/|__/  \__/
```

Download & Start server

Standalone JAR file

$java -jar wiremock-1.57-standalone.jar

http://wiremock.org/running-standalone.html

Config port

$java -jar wiremock-1.57-standalone.jar --**port 8888**
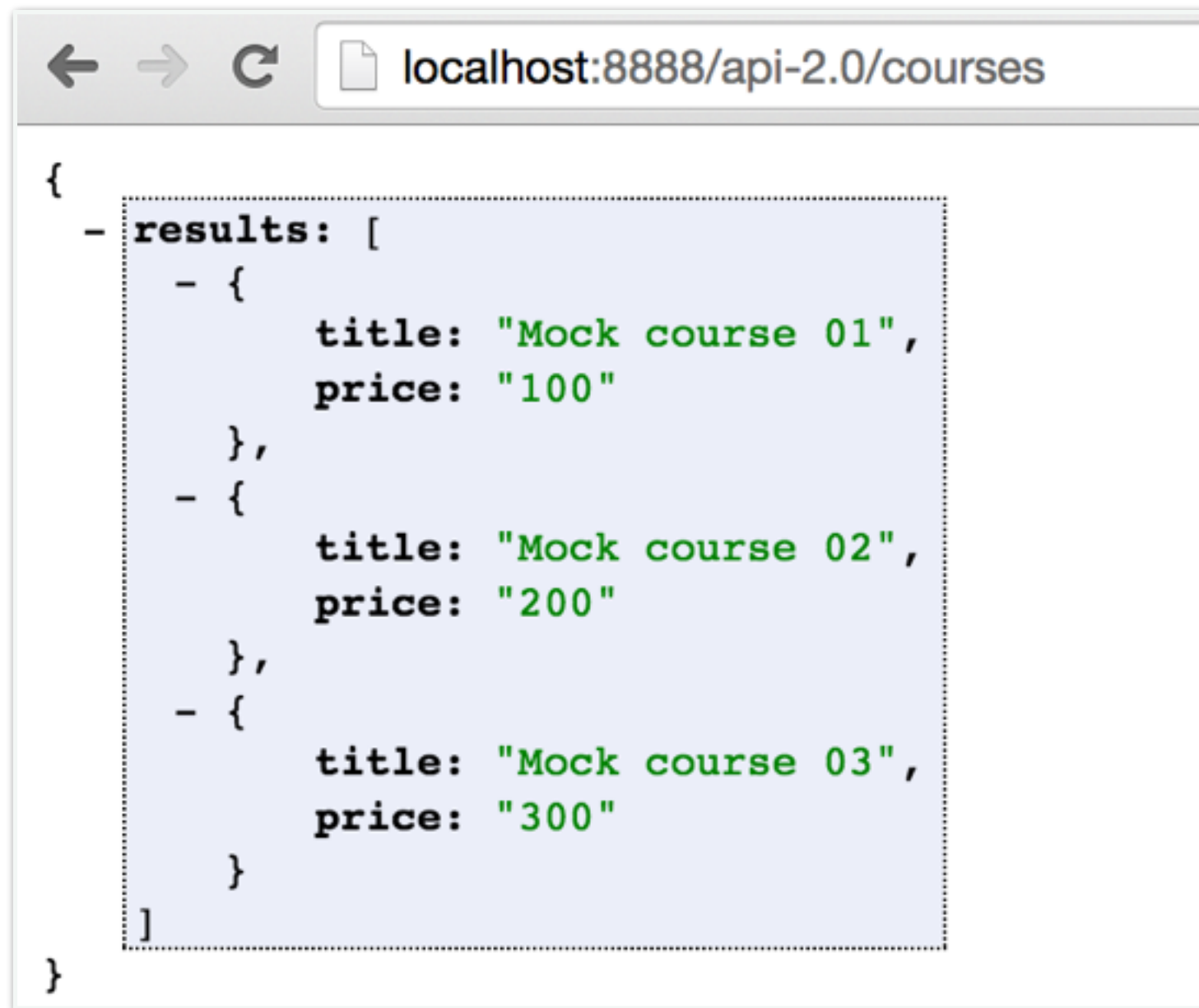
Config endpoint

Create folder => **mappings**

Create file => **mappings/<>.json**

Config endpoint

```json
1  {
2      "request": {
3          "method": "GET",
4          "url": "/api-2.0/courses"
5      },
6      "response": {
7          "status": 200,
8          "headers": {
9              "Content-Type": "application/json"
10         },
11         "jsonBody":
12         {
13             "results" : [
14                 {
15                     "title" : "Mock course 01",
16                     "price" : "100"
17                 },
18                 {
19                     "title" : "Mock course 02",
20                     "price" : "200"
21                 },
22                 {
23                     "title" : "Mock course 03",
24                     "price" : "300"
25                 }
26             ]
27         }
28     }
29 }
```

Access endpoint

# Back to my app

Add flavors

file build.grade

```groovy
productFlavors {
    def COURSE_URL = "COURSE_URL"

    dev {
        applicationId "workshop.mockexternalapi.dev"
        buildConfigField "String", COURSE_URL, '"http://10.0.3.2:8888/api-2.0/courses"'
    }

    qa {
        applicationId "workshop.mockexternalapi.dev"
        buildConfigField "String", COURSE_URL, '"https://www.udemy.com/api-2.0/courses"'
    }

    prod {
        applicationId "workshop.mockexternalapi"
        buildConfigField "String", COURSE_URL, '"https://www.udemy.com/api-2.0/courses"'
    }
}
```

Build variants
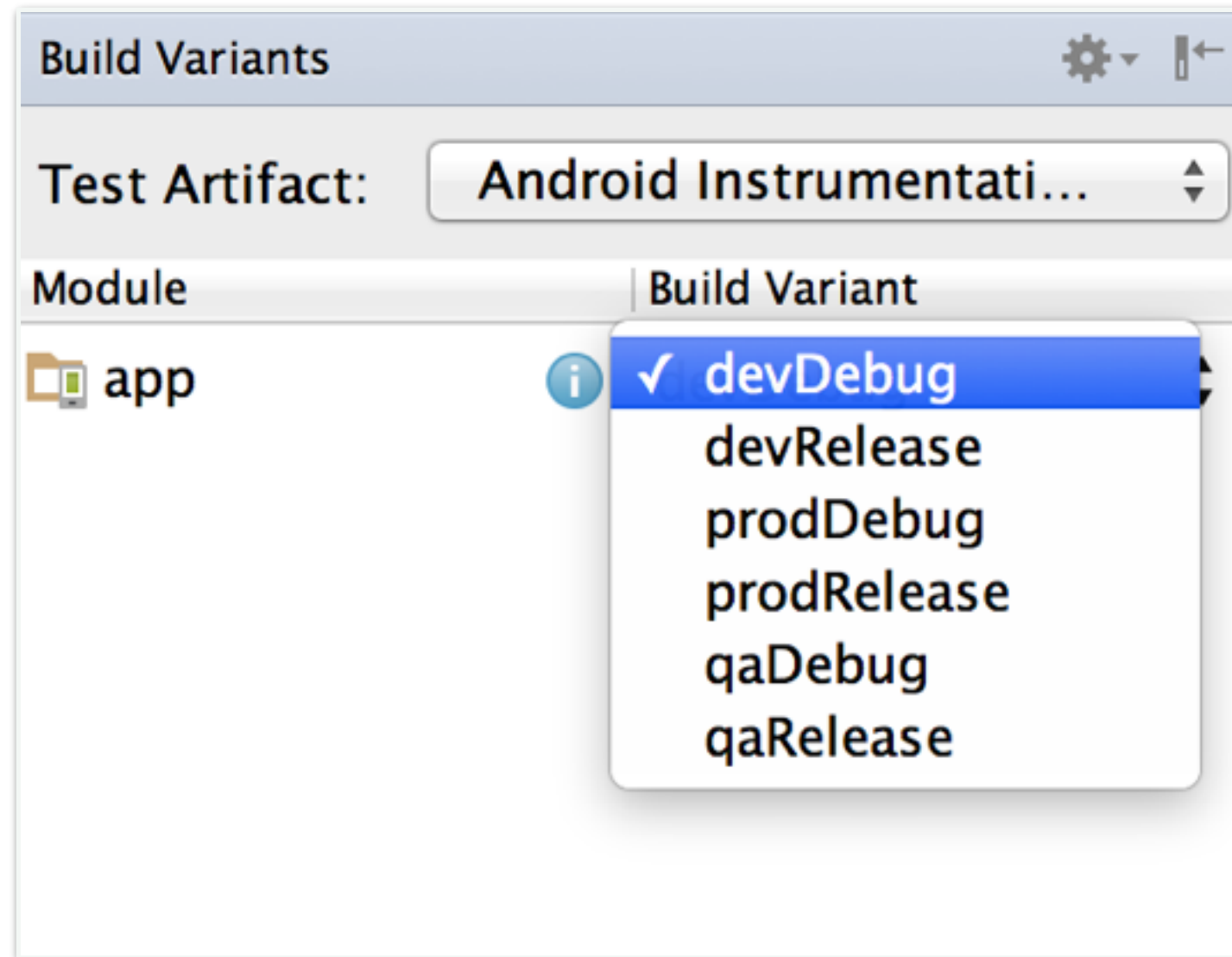
How to use ?

String url = BuildConfig.COURSE_URL;

How to build ?

$./gradlew clean assemble**<Build Variant>**

Workshop