

Integrating with the Service

We'll cover the following ^

- Calling the web-service
- Running the test

Calling the web-service

We have one unfinished piece of work in the `Airport` class—the `fetchData()` function is pending implementation. We need to replace the exception in that function with code to talk to the web service. Since it needs a network connection to talk to an external service, the test for `fetchData()` will be an integration test and not a unit test. We can't get too specific about what to expect from the call, as details like delay will change frequently. Let's write the integration test in a separate test class. Create a file named `AirportIntegrationTest.kt` in the directory `src/test/kotlin/com/agiledeveloper/airportstatus` and key in the following code:

```
package com.agiledeveloper.airportstatus

import io.kotlintest.specs.StringSpec
import io.kotlintest.data.forall
import io.kotlintest.tables.row
import io.kotlintest.matchers.string.shouldContain

class AirportIntegrationTest : StringSpec() {
    init {
        "fetchData returns response from URL" {
            forall(
                row("IAD", "Dulles"),
                row("SFO", "San Francisco"),
                row("ORD", "Chicago")
            ) { code, partialName ->
                Airport.fetchData(code) shouldContain partialName
            }
        }
    }
}
```

AirportIntegrationTest.kt

We test the `fetchData()` function for three different airport codes, to verify that

the function returns a response that contains the partial name of the airport. Let's

replace the call to `throw` in the `fetchData()` function of the `Airport` class with the code to talk to the web service.

```
fun fetchData(code: String) =
    java.net.URL("https://soa.smext.faa.gov/asws/api/airport/status/$code")
        .readText()
```

Airport.kt

Running the test

If the network connection doesn't fail, then as long as the web service at the URL is available and the airports don't change their names, the integration test we wrote should pass. Run the tests to verify that all the tests are passing.

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The next lesson talks about code coverage.