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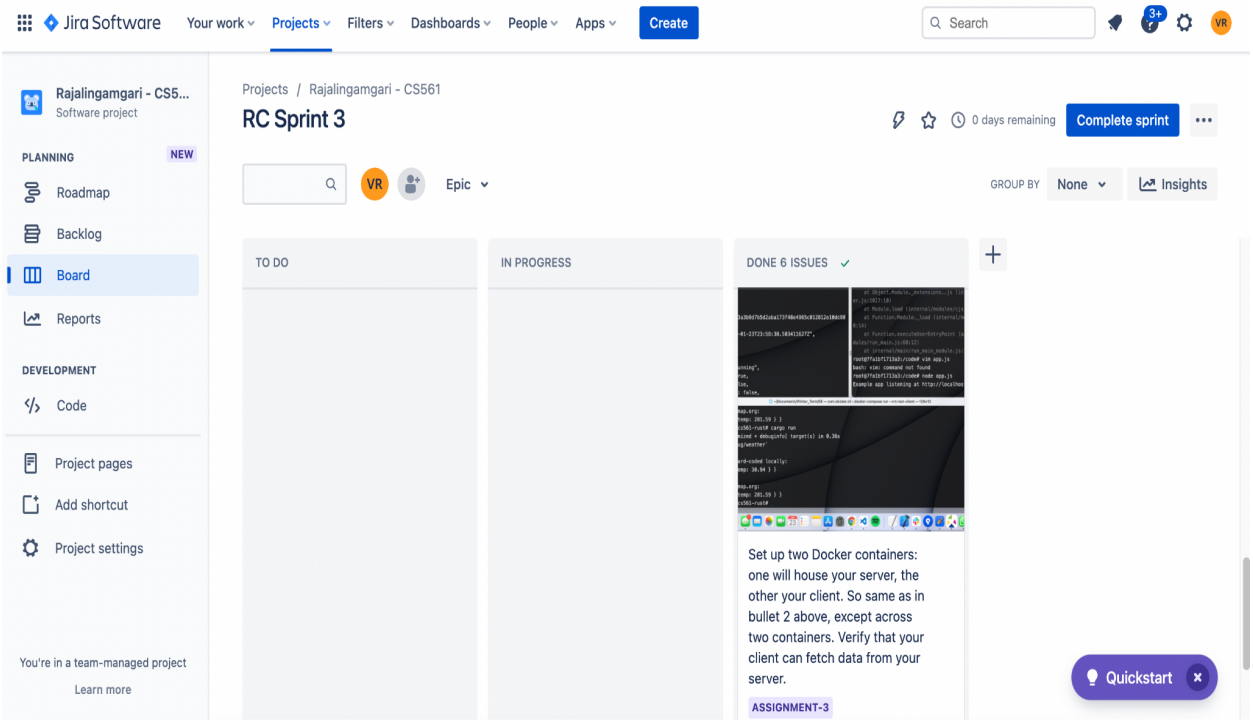
Will Braynen

CS-561 Software Engineering Methods

23 January 2022

ASSIGNMENT 3

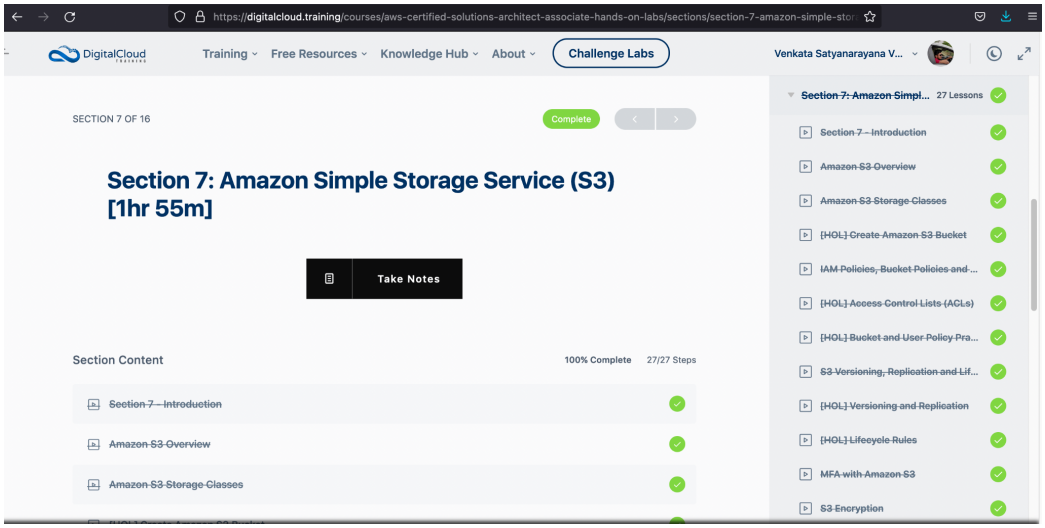
1. Scrum Board

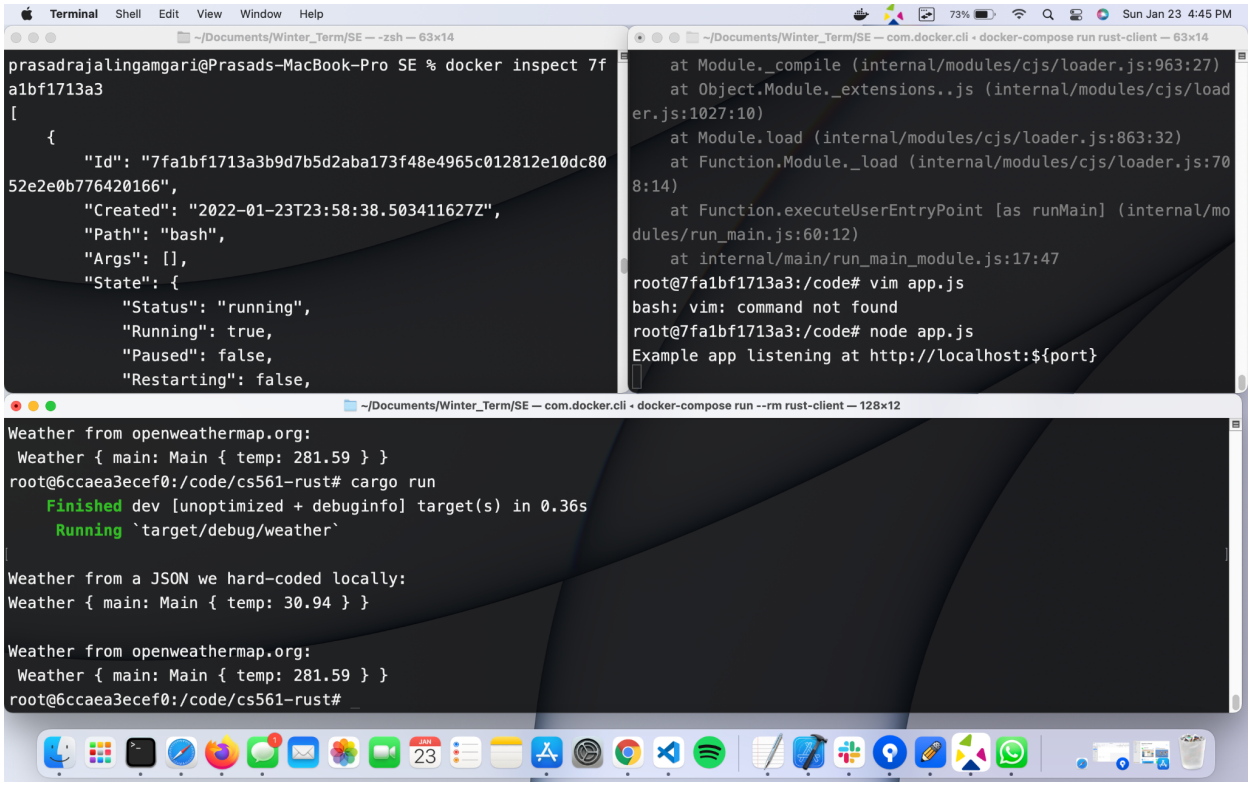


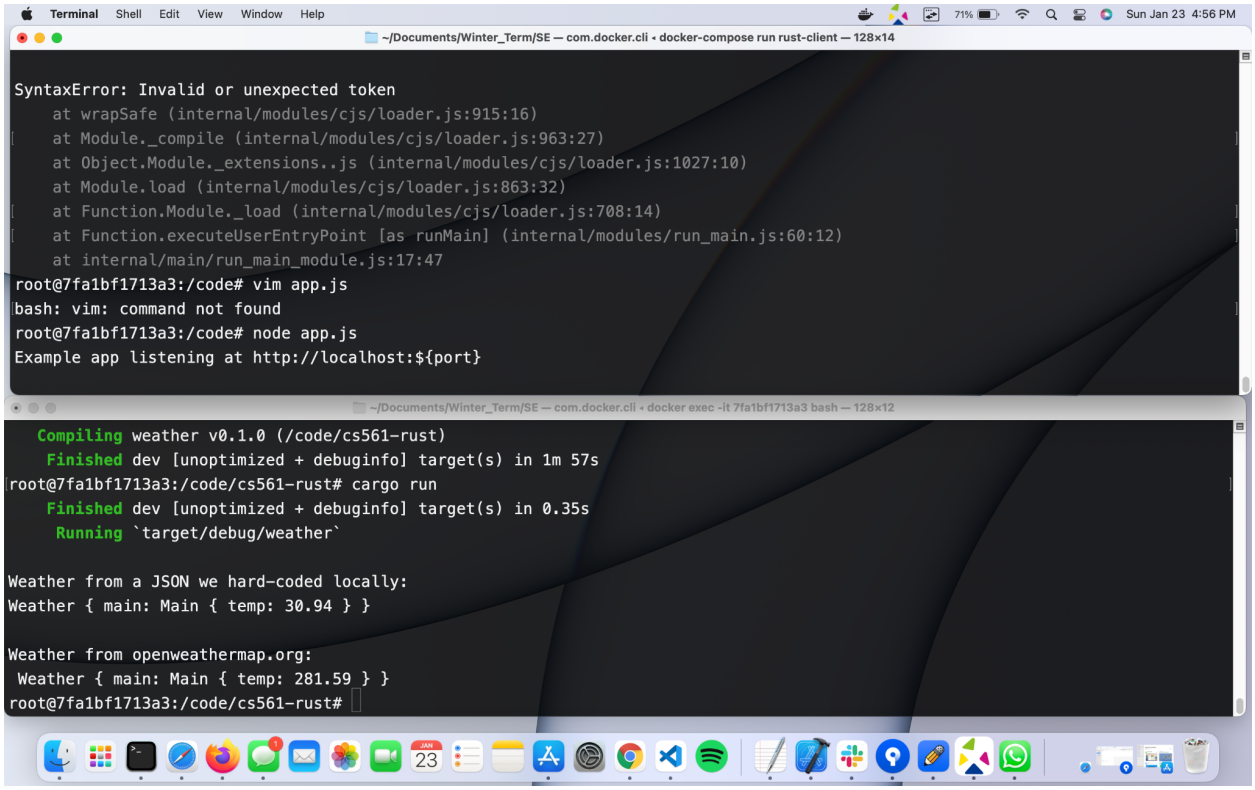
2. Burndown Chart:

3. AWS Hands-on Training:

Section 7 :







4. MockWeatherService (*let myLibrary = MyLibrary(weatherService: mockWeatherService*) class doesn't need an async call because it is restricted to our localhost and there exists no api calls but while using a WeatherServiceImpl (*let myLibrary = MyLibrary()*) requires a communication with the openweathermap api.

In the first instance when we debug the console displays the output as

One

Two

Three

Four

While in the Second scenario, we can see an output as

One

Three

Two

Four

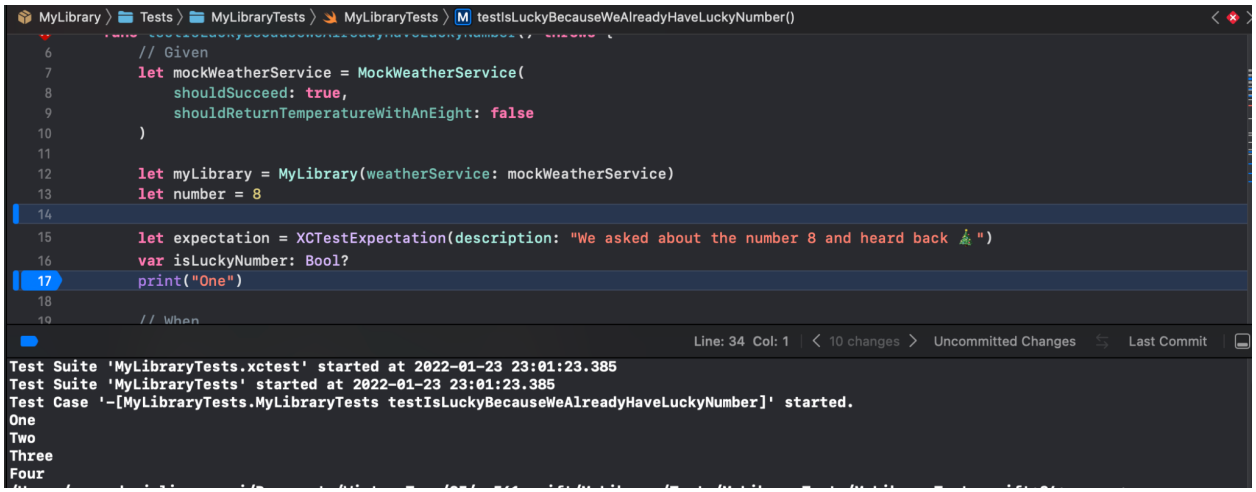
This is because at line 22 :

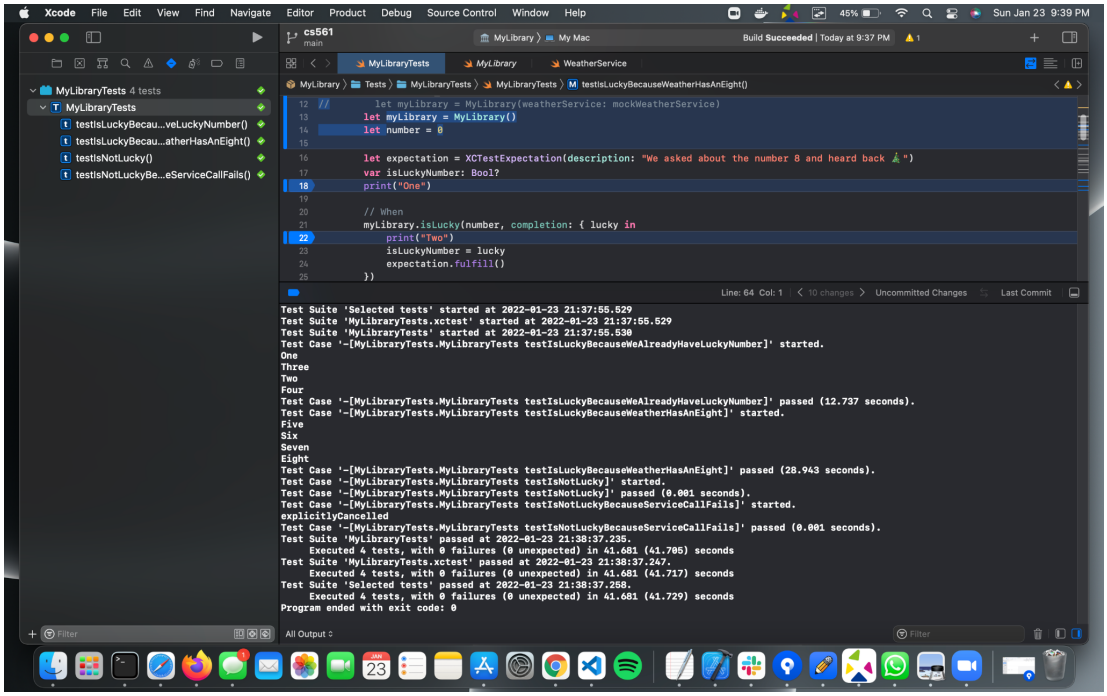
```
myLibrary.isLucky(number, completion: { lucky in
    print("Two")
    isLuckyNumber = lucky
    expectation.fulfill()
    })
```

This code block is redirected to an asynchronous wait for it to hit the openweatherapi endpoint skipping that code block, the execution continues further. And a wait count is initiated and when the wait count exceeds 5, an exception is invoked.

The async call sends back a response or exceeds the wait time to throw an exception and the execution further continues for the assertions.

The assertions are then validated to pass the tests.


MyLibrary 〉 Tests 〉 MyLibraryTests 〉 MyLibraryTests 〉 testIsLuckyBecauseWeAlreadyHaveLuckyNumber()
// Given
let mockWeatherService = MockWeatherService(
shouldSucceed: true,
shouldReturnTemperatureWithAnEight: false
)
let myLibrary = MyLibrary(weatherService: mockWeatherService)
let number = 8
let expectation = XCTestExpectation(description: "We asked about the number 8 and heard back 🎄")
var isLuckyNumber: Bool?
print("One")
// When
Line: 34 Col: 1
10 changes
Uncommitted Changes
Last Commit
Test Suite 'MyLibraryTests.xctest' started at 2022-01-23 23:01:23.385
Test Suite 'MyLibraryTests' started at 2022-01-23 23:01:23.385
Test Case '-[MyLibraryTests.MyLibraryTests testIsLuckyBecauseWeAlreadyHaveLuckyNumber]' started.
One
Two
Three
Four


Xcode File Edit View Find Navigate Editor Product Debug Source Control Window Help
Sun Jan 23 9:39 PM
cs561
main
MyLibrary 〉 My Mac
Build Succeeded | Today at 9:37 PM
MyLibraryTests 4 tests
MyLibraryTests
testIsLuckyBecau...veLuckyNumber()
testIsLuckyBecau...atherHasAnEight()
testIsNotLucky()
testIsNotLuckyBe...eServiceCallFails()
let myLibrary = MyLibrary(weatherService: mockWeatherService)
let myLibrary = MyLibrary()
let number = 8
let expectation = XCTestExpectation(description: "We asked about the number 8 and heard back 🎄")
var isLuckyNumber: Bool?
print("One")
// When
myLibrary.isLucky(number, completion: { lucky in
print("Two")
isLuckyNumber = lucky
expectation.fulfill()
})
Line: 64 Col: 1
10 changes
Uncommitted Changes
Last Commit
Test Suite 'Selected tests' started at 2022-01-23 21:37:55.529
Test Suite 'MyLibraryTests.xctest' started at 2022-01-23 21:37:55.529
Test Suite 'MyLibraryTests' started at 2022-01-23 21:37:55.530
Test Case '-[MyLibraryTests.MyLibraryTests testIsLuckyBecauseWeAlreadyHaveLuckyNumber]' started.
One
Three
Two
Four
Test Case '-[MyLibraryTests.MyLibraryTests testIsLuckyBecauseWeAlreadyHaveLuckyNumber]' passed (12.737 seconds).
Test Case '-[MyLibraryTests.MyLibraryTests testIsLuckyBecauseWeatherHasAnEight]' started.
Five
Six
Seven
Eight
Test Case '-[MyLibraryTests.MyLibraryTests testIsLuckyBecauseWeatherHasAnEight]' passed (28.943 seconds).
Test Case '-[MyLibraryTests.MyLibraryTests testIsNotLucky]' started.
Test Case '-[MyLibraryTests.MyLibraryTests testIsNotLucky]' passed (0.001 seconds).
Test Case '-[MyLibraryTests.MyLibraryTests testIsNotLuckyBecauseServiceCallFails]' started.
explicitlyCancelled
Test Case '-[MyLibraryTests.MyLibraryTests testIsNotLuckyBecauseServiceCallFails]' passed (0.001 seconds).
Test Suite 'MyLibraryTests' passed at 2022-01-23 21:38:37.235.
Executed 4 tests, with 0 failures (0 unexpected) in 41.681 (41.705) seconds
Test Suite 'MyLibraryTests.xctest' passed at 2022-01-23 21:38:37.247.
Executed 4 tests, with 0 failures (0 unexpected) in 41.681 (41.717) seconds
Test Suite 'Selected tests' passed at 2022-01-23 21:38:37.258.
Executed 4 tests, with 0 failures (0 unexpected) in 41.681 (41.729) seconds
Program ended with exit code: 0

5. https://rajalingamgariassignment3.s3.amazonaws.com/weather.json