

Here are the JUnitTests made for the week 5, with them shown in a JaCoCo report and VsCode built-in testing module.

com.data_management

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed Cxty	Missed Lines	Missed Methods	Missed Classes
WebSocketClientReader	<div><div></div></div>	78%	<div><div></div></div>	61%	27 56	30 127	0 17	0 1

The screenshot shows the VS Code TESTING view with the following test results:

- 7/7 tests passed (2.4s total)
- cardio_generator (17.4s)
 - { } alerts
 - { } com.alerts (698ms)
 - { } com.cardio_generator (60ms)
- data_management (16.6s)
 - DataReaderTest
 - DataStorageTest (72ms)
 - PatientTest
- WebSocketClientReaderTest (88ms)
 - testValidMessageParsing() (2.0ms)
 - testInvalidMessageFormat() (1.0ms)
 - testNullAndEmptyMessages() (3.0ms)
 - testInvalidPatientIds() (2.0ms)
 - testInvalidTimestamps() (1.0ms)
 - testInvalidMeasurementValues() (1.0ms)
 - testKnownHealthMetrics() (2.0ms)
 - testMixedValidInvalidMessages() (2.0ms)
 - testBoundaryValues() (70ms)
 - testInvalidLabels() (1.0ms)
 - testUnknownHealthMetrics() (1.0ms)
 - testMultipleMessagesForSamePatient() (2.0ms)
- WebSocketConnectionTest (3.1s)
 - testConnectionOpen() (1.0ms)
 - testNormalConnectionClose() (2.0ms)
 - testAbnormalConnectionClose() (0.0ms)
 - testConnectionErrors() (14ms)
 - testStartAndStopReading() (0.0ms)
 - testMultipleStartStopCycles() (69ms)
 - testStartReadingWithNullStorage() (1.0ms)
 - testDifferentCloseScenarios() (3.0ms)
 - testNullErrorHandling() (0.0ms)
 - testConnectionStateAfterErrors() (3.0s)

FileEditSelectionViewGoRunTerminalHelp<=>

TESTING

Filter (e.g. text, !exclude, @tag)

7/72.4s

cardio_generator 17.4s

> {} alerts

> {} com.alerts 698ms

> {} com.cardio_generator 60ms

> {} data_management 16.6s

> DataReaderTest

> DataStorageTest 72ms

> PatientTest

> WebSocketClientReaderTest 88ms

> WebSocketConnectionTest 3.1s

> WebSocketDataStorageIntegrationTest 117ms

> testDataStorageIntegration() 4.0ms

> testRealTimeListenerNotifications() 2.0ms

> testDuplicateDetectionIntegration() 3.0ms

> testMultiplePatientsConcurrentProcessing() 2.0ms

> testDataFreshnessTracking() 3.0ms

> testRecentRecordsRetrieval() 3.0ms

> testSystemStatisticsAccuracy() 3.0ms

> testIntegrationWithDataStorageErrors() 90ms

> testLongRunningIntegration() 7.0ms

> WebSocketIntegrationTest 12.0s

> testDataFlowIntegration() 821ms

> testMultipleMessagesIntegration() 1.2s

> testMixedMessagesIntegration() 1.2s

> testServerDisconnectionHandling() 4.4s

> testReconnectionBehavior() 4.4s

> WebSocketPerformanceTest 1.2s

> testHighVolumeMessageProcessing() 8.0ms

> testConcurrentMessageProcessing() 140ms

> testMixedLoadStability() 21ms

> testMemoryUsageWithLargeDataset() 7.0ms

> testRapidSuccessiveMessages() 8.0ms

> testSystemThroughput() 1.0s

> testStressConditions() 20ms