












Testing 7.

After implementing design patterns and integrating them with the existing code four test classes were created: `DataStorageSingletonTest` and `HealthDataSimulatorTest` to test the working of the `getInstance()` method embedded into singleton pattern. Then, `AlertStrategyTest` class was created to check the mechanisms of choosing the right algorithm(strategy) dependent on context. `AlertDecoratorTest` class checks the working of the decorator pattern. Above all that, the suite of old tests were run to check if the code is integrated properly.

Appropriate screenshots:

- ✓ Test run at 6/9/2024, 5:33:11 PM
 - ✓  `testDataTransmissionFailure()`
- ✓ Test run at 6/9/2024, 5:33:03 PM
 - ✓  `testGetRecordsNoMatch()`
 - ✓  `testGetRecordsNoRecords()`
 - ✓  `testGetRecordsSpecificRecordType()`
 - ✓  `testGetRecordsWithinTimeRange()`
- ✓ Test run at 6/9/2024, 5:32:57 PM
 - ✓  `testSingletonInstance()`
- ✓ Test run at 6/9/2024, 5:32:48 PM
 - ✓  `testAddMultipleRecords()`
 - ✓  `testAddPatientData()`
 - ✓  `testGetAllPatients()`
 - ✓  `testGetRecordsNoMatch()`
 - ✓  `testGetRecordsNoRecords()`
 - ✓  `testGetRecordsWithinTimeRange()`
- ✓ Test run at 6/9/2024, 5:32:40 PM
 - ✓  `testSingletonInstance()`
- ✓ Test run at 6/9/2024, 5:32:32 PM
 - ✓  `testAlertGeneration()`
 - ✓  `testRealTimeDataProcessing()`


✓ Test run at 6/9/2024, 5:32:23 PM



✓  testOnClose()

✓  testOnError()


✓  testOnMessage_InvalidMessage()

✓  testOnMessage_ValidMessage()

✓ Test run at 6/9/2024, 5:32:14 PM

✓  testBloodPressureStrategy()


✓  testECGAlertStrategy()


✓  testBloodOxygenationStrategy()


✓ Test run at 6/9/2024, 5:32:07 PM

✓  testBloodPressureTrendAlert()

✓  testCriticalBloodPressureAlert()

✓  testHypotensiveHypoxemiaAlert()

✓  testLowBloodSaturationAlert()

✓  testRapidDropBloodSaturationAlert()

✓ Test run at 6/9/2024, 5:31:59 PM

✓  testAlertSimulation()