```
[INFO] Tests run: 36, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- jacoco:0.8.7:report (default-cli) @ cardio_generator ---
[INFO] Loading execution data file /Users/raulparau/Desktop/signal_project/target/jacoco.exec
[INFO] Analyzed bundle 'cardio_generator' with 36 classes
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  2.009 s
```

All my test reports are running. The coverage of the JUnit tests can be seen in the following picture.

**cardio_generator**

| Element | Missed Instructions | Cov. | Missed Branches | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods | Missed | Classes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| com.cardio_generator.generators | | 0 % | | 0 % | 27 | 27 | 111 | 111 | 18 | 18 | 6 | 6 |
| com.cardio_generator | | 6 % | | 7 % | 26 | 29 | 76 | 84 | 13 | 15 | 0 | 1 |
| com.cardio_generator.outputs | | 1 % | | 0 % | 17 | 18 | 59 | 60 | 15 | 16 | 4 | 5 |
| com.data_management | | 50 % | | 54 % | 8 | 28 | 34 | 75 | 3 | 17 | 1 | 4 |
| com.alerts.Decorator | | 0 % | | 0 % | 11 | 11 | 22 | 22 | 10 | 10 | 3 | 3 |
| com.newMainClass | | 0 % | | 0 % | 4 | 4 | 5 | 5 | 2 | 2 | 1 | 1 |
| com.alerts.Week3Logic_StrategyPattern | | 99 % | | 87 % | 10 | 61 | 3 | 140 | 0 | 20 | 0 | 8 |
| com.alerts | | 97 % | | 80 % | 2 | 15 | 1 | 40 | 0 | 10 | 0 | 2 |
| com.alerts.Factory | | 100 % | | n/a | 0 | 11 | 0 | 11 | 0 | 11 | 0 | 6 |
| Total | 1.427 of 2.480 | 42 % | 74 of 168 | 55 % | 105 | 204 | 311 | 548 | 61 | 119 | 15 | 36 |

All in all the coverage looks solid for the classes I wrote test cases for.
Especially my logic from week 3, which by coincidence already implemented the Strategy design pattern, seems to be correct and working. The following picture illustrates this too.

**com.alerts.Week3Logic_StrategyPattern**

| Element | Missed Instructions | Cov. | Missed Branches | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods | Missed | Classes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SelfTriggeredAlert | | 91 % | | 50 % | 3 | 5 | 2 | 9 | 0 | 2 | 0 | 1 |
| SaturationTrendAlert | | 98 % | | 87 % | 1 | 7 | 1 | 16 | 0 | 3 | 0 | 1 |
| BloodPressureTrendAlert | | 100 % | | 95 % | 1 | 16 | 0 | 35 | 0 | 5 | 0 | 1 |
| BloodPressureCriticalAlert | | 100 % | | 92 % | 1 | 9 | 0 | 24 | 0 | 2 | 0 | 1 |
| HypotensiveHypoxemiaAlert | | 100 % | | 93 % | 1 | 11 | 0 | 19 | 0 | 3 | 0 | 1 |
| EGCAlert | | 100 % | | 80 % | 2 | 7 | 0 | 20 | 0 | 2 | 0 | 1 |
| AlertType | | 100 % | | n/a | 0 | 1 | 0 | 8 | 0 | 1 | 0 | 1 |
| BloodSaturationCriticalAlert | | 100 % | | 83 % | 1 | 5 | 0 | 9 | 0 | 2 | 0 | 1 |
| Total | 4 of 698 | 99 % | 10 of 82 | 87 % | 10 | 61 | 3 | 140 | 0 | 20 | 0 | 8 |

Furthermore, the Factory Design pattern work well too, which is captured in the next picture:

**com.alerts.Factory**

| Element | Missed Instructions | Cov. | Missed Branches | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods | Missed | Classes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ECGAlertFactory | | 100 % | | n/a | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 |
| SaturationTrendAlertFactory | | 100 % | | n/a | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 |
| BloodPressureTrendAlertFactory | | 100 % | | n/a | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 |
| BloodSaturationCriticalAlertFactory | | 100 % | | n/a | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 |
| BloodPressureCriticalAlertFactory | | 100 % | | n/a | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1 |
| AlertFactory | | 100 % | | n/a | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Total | 0 of 58 | 100 % | 0 of 0 | n/a | 0 | 11 | 0 | 11 | 0 | 11 | 0 | 6 |

Last week I was disappointed in the Junit tests for the DataStorage class, so I implemented more tests this week. However my test coverage still does not exceed 60 percent, which is caused by the main method in data storage.

# DataStorage

| Element | Missed Instructions | Cov. | Missed Branches | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods |
|---|---|---|---|---|---|---|---|---|---|---|
| main(String[]) | | 0 % | | 0 % | 3 | 3 | 13 | 13 | 1 | 1 |
| addPatientData(int, double, String, long) | | 100 % | | 100 % | 0 | 2 | 0 | 6 | 0 | 1 |
| getRecords(int, long, long) | | 100 % | | 100 % | 0 | 2 | 0 | 4 | 0 | 1 |
| DataStorage() | | 100 % | | n/a | 0 | 1 | 0 | 3 | 0 | 1 |
| getInstance() | | 100 % | | 100 % | 0 | 2 | 0 | 3 | 0 | 1 |
| getAllPatients() | | 100 % | | n/a | 0 | 1 | 0 | 1 | 0 | 1 |
| Total | 51 of 119 | 57 % | 4 of 10 | 60 % | 3 | 11 | 13 | 30 | 1 | 6 |