Caren (Nedap) - Team 2 Security Analysis 01/ July 2020

Testing Report

Testing is a crucial part in developing web applications. It is of utmost importance to ensure that the functionality of our application works as intended. For our Caren project, this meant performing systematic and black box tests on the RESTful API.

Postman

To make sure the RESTful API is functioning as expected, we used Postman. Due to the ease of navigating and inspecting through large responses, Postman allows us to quickly ensure that http requests and responses work as intended.

JUnit Tests

When testing REST resources, it is important to separate assertions based on what segment of the application is being tested so that a clear goal can be met. This is why we decided to implement several test methods each dealing with the various sections of the web applications: accounts, associations, setting and records. By doing so, we were able to create a comprehensible black box testing class. The JUnits tested the resource packages, model packages as well as the SQL queries.

Systematic testing

Whilst, the testing methods used above were reliable, systematic testing allowed us to debug our web application in the most straightforward way. We approached this by mainly using print statements in every step of the code to ensure that the desired output was obtained. Moreover, the team worked together, testing the application against various inputs and button combinations to detect any anomalies. While it has not been easy to come up with all possible situations to test the application against, it also allowed us to quickly solve issues with functionality.