Test report - team #1

Unit tests

All the REST endpoints are thoroughly tested by hand. We've sent many different requests to all the REST methods using Postman, and made sure everything worked correctly.

For example, we tried updating metadata with an empty object, an object with only one of the variables, an object with empty variable values, objects with zero to many tags, etc. Furthermore, we tried to break the system by sending requests to a simulation with a non-existing id. Or all kinds of wrongly formatted data. For example, we tried sending incorrect JSON and non-numeric IDs. Also trying to select IDs that don't exist doesn't break.

We repeated this process for all endpoints, validating the requests by hand.

We also wrote some JUNIT tests for the AuthenticationResource and Simulation(s)Resource classes. Currently, we test if a login works (cookie with session id is created) and if creating a new user works in TestAuthenticationResource. We test getting all simulations gives a list of Metadata in TestSimulationsResource. And we test getting a simulation by ID (valid ID works, invalid ID gives status 400) and updating simulation metadata works (Check if the uploaded metadata matches the one that gets stored in the database, variables not specified don't override anything and trying to update metadata from a non-existing simulation gives 400). This could use further improvement, but because of all the REST testing, we can quite safely assume that everything works as expected.

System tests

The whole system has been tested by visual inspection. We tried all buttons on all pages in different orders, tried accessing pages without authorization, typing nonsense into text fields etc.

The login page works: You can enter the system if you have the right credentials, but not with wrong credentials. SQL injection is not possible.

Creating a new user works only if you fill in all the fields with appropriate information. It checks if the email address is valid, if the passwords match and makes sure the username isn't already taken.

All simulations in the database are shown in the simulations list. Searching for simulations by name / tag / researcher works.

You can generate all graphs for the shown types of variables. It works if you select a simulation, then a graph type, and then a variable, but it also works if you select the graph type before the simulation. Editing chart appearance also works as intended.

Adding an extra dataset to the chart works. You can use data from the same simulation, or from a different one.

You can add all possible types of elements to the report and print it.

You can edit all metadata fields for a simulation, you can leave fields blank, but putting " in there gives an error. All other symbols work though.

Creating new tags works, and selecting combinations of tags for a simulation works as well. You can upload a new simulation from zip, or from a folder. You can reset your selected files. You can delete simulations and it gives you a confirmation first.