# Sojabohne -The Requirements

or "What we think, you want to have"

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# 1. Introduction



Goal: web service / web application for Weka 4 main pillars:

- Rest Interface
- Tomcat
- RDF Database
- User-administration

# 2. How shall Sojabohne work

# 2.1 For registered user



## What you told us about:

There shall be the possibility for any anonymous user to register himself on Sojabohne, which entails the following benefits:

- the user data is private (based on UR0601.1)
- it's possible to create user groups, with interaction possibilities between group members (based on UR0601.2, UR0601.3)
- higher priority in the request queue (based on UR0601.4)
- no constraints



Every user can register himself on Sojabohne under specification of his full name, his e-mail and a password. After receiving his information, the user can login onto Sojabohne and now has the following benefits with his account through an assigned unique user ID: (FR005, FR006, FR008)

- the basic functionalities (FR009)
  - create a new model
  - upload an existing model
  - test an existing model
  - share models with other users



- set profile settings like password, email and username (FR009)
- all data packages from this user are private and the user has the possibility to set the package access rights (FR011)
- access to the package manager with an overview with all relevant data packages (FR009)
- possibility to upload self-written algorithms as .jar file, which have to be approved by an admin (FR009.4)
- now, the user can upload data with any size; can run any number of algorithms simultaneously and his algorithms may run endlessly (FR020)
- more options to choose the presentation of the result

# 2.2 For anonymous user



### What you told us about:

Unregistered users have all the same basic features as the registered users (UR0602.1)

BUT they have the following constraints:

- -After 30 days their saved data is deleted (UR0602.2.1.1)
- -Timeout for anonymous users, regarding the runtime of their algorithms (UR0503.0, UR0602.2.1.2)
- Their requests are put in a request-queue, if the number of requests exceed the maximum number of algorithms running at the same time (UR0507\_0)
- -A maximum upload filesize (UR0602.2.2.1)



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- Their requests are put in a request-queue, if the number of requests exceed the maximum number of algorithms running at the same time (UR0507.0)
- -A maximum upload filesize (UR0602.2.2.1)
- → We used the previous requirements for some efficiency aspects and called the admin to account for setting these time and space limits (NFR008.0, NFR009.0, NFR010.0)



- •In contrast to the registered user people may also use Sojabohne as an anonymous user <u>without</u> registering (FR014, based on UR0602.1)
- •Automatically they give everyone reading and writing rights to their saved data package (FR014)
- •In the workflow- or request-queue the registered users are prioritized over anonymous users (FR021, based on UR0601.4)



### The normal work process for Unregistered Users

- 1.) The anonymous user enters the homepage and choose the tap "create new model"
- 2.) Then he uploads his input data. If this is bigger than the admin-set limitation...
- 3.) Choose split between training and test data
- 4.) Choose algorithm and start it. If the user tries to start multiple algorithms or the algorithm runs longer than the admin-set limitation...
- 5.) Saving the solutions and data in packages to the database with read and write permission for all users (cannot change it). This package can be found by its package-ID

On the main page he will be referred after an error there is a button for registration

→ "it is always better to be registered"

There are no possibilities to create a group.

The packages will be deleted after 30 days.

User gets an error message and will be redirected to the previous page

# 2.3 For administrators



### What you told us about:

There shall be a group of administrators for the organization of the user (based on UR0603.1) with the following conditions:

- administrators shall have the possibility to ban user from Sojabohne (based on UR0603.1)
- administrators set the constraints for anonymous user (based on UR0602.2.1.2, UR0602.2.2.1, UR0603.3)
- administrators set the number of overall running algorithms (based on UR0603.2)
- administrators have to unlock uploaded user algorithms (based on UR0501.1)



There shall be a group of administrators for the organisation of the user (based on 5.2 of the FR) with the following conditions:

- administrators can do everything, a normal user can(and also have to be logged in), but have extra features for the following things (FR019):
  - set constraints for anonymous users, especially the time, their algorithms may run
    in total (based on UR0602.2.1.2); the number of algorithms they can run
    simultaneously (based on UR0606.3) and the maximum upload
    file size (based on UR0602.2.2)

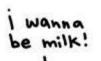


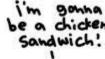


- set the maximum number of simultaneously running algorithms for the whole application (based on UR0603.2)
- see and manipulate the algorithm queue (based on UR0507.0)
- see the user activities with the possibility to ban the user from Sojabohne (based on UR0603.1)
- see and check all uploaded user algorithms with the possibility to approve or delete them (based on UR0501.1)
  - in addition there's the possibility to deactivate and reactivate approved user algorithms

## Thank you for listening!

Any questions?









#### **Image sources:**

http://www.denns-biomarkt.at/file/9560\_Sojabohnen.jpg

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