Shanoir NG – Center Managment

Software Design Description

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# Microservice context

## Microservice presentation

This microservice is a part of the Shanoir-NG application and is responsible for center management and their requests.

## Main functionalities

Shanoir NG main functionalities are:

* Managing centers (create, delete, update)
* Managing investigators (create, delete, update)
* Managing acquisition equipment (create, delete, update)
* Managing coils (create, delete, update)

## Application users

Target population is:

* Shanoir administrators and expert to create/edit/delete
* Shanoir users of any level (to view)

# Functional architecture

## Center

### Name

May contain letters, numbers, whitespaces, special characters, accents. Minimum 2. Maximum: 200. Input. Mandatory

### Street

Text area. Facultative.

### Postal code

Input. Facultative.

### City

Input. Facultative.

### Country

Input. Facultative.

### Phone number

Input. Facultative.

### Website

Input. Facultative.

## Investigator

Person involved in study. Linked to the center and study.

### First name

May contain letters, numbers, whitespaces, special characters, accents. Minimum 2. Maximum: 50. Input. Mandatory

### Last name

May contain letters, numbers, whitespaces, special characters, accents. Minimum 2. Maximum: 50. Input. Mandatory

### Affiliation center(s)

List of centers affiliated to the investigator. Select but few centers with one investigators are possible.

### Functions

Select but many possible. Possible selections:

* Psychologist
* Medical doctor
* Researcher

## Acquisition equipment

Model with a serial number that is linked to specific center.

### Name

Name that appears on UI is the concatenation of the rest of fields and center’s name:

{Manufacturer} - {Model name} {Model’s magnetic field} T ({Model’s modality}) {Serial number} - {Center name}

### Manufacturer model name

Object Model (see point 2.4)

### Center

Object Center (see point 2.2)

### Serial number

Input (text or numbers)

## Model

Equipment models used for acquisition

### Manufacturer

Object Manufacturer (see point 2.5). Mandatory

### Model name

Input (text) (from 2 to 200 characters). Mandatory

### Modality

MR or PET. Mandatory

### Magnetic field

Input (number). Mandatory

## Manufacturer

### Name

Input (min. 2, max. 200 characters). Mandatory

## Coil

### Name

Input. Min 2, max 200 characters. Mandatory

### Center

Select from the list of centers. Mandatory

### Acquisition equipment

Select – from the list of available equipment for selected centers. Mandatory

### Serial number

Input. Min 2, max 200 characters. Facultative

### Coil type

Obligatory. One of the following:

* BODY
* EXTREMITY
* HEAD
* MULTICOIL
* SURFACE

### Number of channels

Input. Min 2, max 200 characters. Facultative

## Functionalities (Center)

### List centers (GET /center/all)

After clicking on the Center menu in Shanoir, the table with the list of centers appears with the following columns:

* Name
* City
* Country
* Edit (with icon) – for admins and experts
* Delete (with icon) - for admins and experts
* Details (with icon)
* Add acquisition equipment (with icon) – for admins and experts

It is possible to filter and sort the table.

In the header there is a link to **new center**.

### View details of one center (GET /center/{id})

From the table it is possible to see the details of one center only.

On this page it is possible to see (only one request-response is sent):

* The details about the center (name, street etc.)
* List of investigators linked to this center
* List of acquisition equipment linked to this center

On the bottom of the page there are buttons:

* Back
* Edit (if admins or expert)
* Delete (if admin or expert)
* Add acquisition equipment (if admin or expert)

### Add new center (POST /center)

Only for admins and experts.

Add new center after filling in the fields relative to center (see 2.1. Center)

### Edit center (PUT /center/{id})

Only for admins and experts.

Possible to edit the fields from 2.1 Center

### Delete center (DELETE /center/{id})

Only for admins and experts. Delete center permanently. Cannot be deleted if a center is linked to a study

**This feature is on stand-by. For the moment it will not be possible to delete anything.**

### Add acquisition equipment

Redirected to POST /equipment with the select-center already chosen.

## Functionalities (Investigator)

### List Investigators (GET /investigator/all)

After clicking on the Investigator menu in Shanoir, the table with the list of investigator appears with the following columns:

* First Name
* Last Name
* Functions: list of functions (array)
* Center: list of centers (array)
* Delete (with icon) – for admins and experts
* Edit (with icon) – for admins and experts
* Details (with icon)

It is possible to filter and sort the table.

In the header there is a link to **new investigator**.

### View details of one investigator (GET /investigator/{id})

From the table it is possible to see the details of one investigator only.

On the bottom of the page there are buttons:

* Back
* Edit – for admins and experts
* Delete – for admins and experts

### Add new investigator (POST / investigator)

Only for admins and experts.

Add new investigator after filling in the fields relative to investigator (see 2.2)

### Edit center (PUT / investigator/{id})

Only for admins and experts.

Possible to edit the fields from 2.2

### Delete center (DELETE / investigator/{id})

Only for admins and experts. Delete investigator permanently. Cannot be deleted if an investigator is linked to a study.

**This feature is on stand-by. For the moment it will not be possible to delete anything.**

## Functionalities (Acquisition equipment)

### List Equipment (GET /equipment/all)

After clicking on the Acquisition equipment menu in Shanoir, the table appears with the following columns:

* Name
* Manufacturer (link to manufacturer’s details -> see GET /manufacturer/{id})
* Model (link to model’s details -> see GET /model/{id})
* Serial number
* Center (link to center’s details -> see GET /center/{id})
* Delete (with icon) – only for admins and experts
* Edit (with icon) – only for admins and experts
* Details (with icon) – only for admins and experts

It is possible to filter and sort the table.

There is one more Select in the header that allows to see in the able manufacturers and models.

In the header there is a link to **new acquisition equipment**, **new manufacturer**, **new model**.

### View details of one equipment (GET /equipment/{id})

From the table it is possible to see the details of one equipment only.

On the bottom of the page there are buttons:

* Back
* Edit (for admins and experts)
* Delete (for admins and experts)

### Add new investigator (POST /equipment)

Only for admins and experts.

Add new investigator after filling in the fields relative to equipment.

### Edit center (PUT / equipment /{id})

Only for admins and experts.

Possible to edit the fields

### Delete center (DELETE / equipment /{id})

Only for admins and experts.

Delete equipment permanently

**This feature is on stand-by. For the moment it will not be possible to delete anything.**

### View manufacturers (GET /manufacturer/all)

List all manufacturers.

Columns:

* Name
* Edit (for admins and experts)
* Delete (for admins and experts)

### Add new manufacturer (POST /manufacturer)

Only for admins and experts.

Possible to add new Manufacturer. Only Name is required.

### Edit manufacturer (PUT /manufacturer/{id})

Only for admins and experts.

Possible to edit the name (can get there by clicking on the model or choosing Manufacturer from the Select in the header of the table)

### Delete manufacturer (DELETE /manufacturer/{id})

Only for admins and experts.

Delete -> only it is not used by any equipment.

### View model (GET /model/all)

List all models.

Columns:

* Manufacturer (link to detail of the manufacturer GET /manufacturer/{id})
* Name
* Magnetic field
* Edit (for admins/experts)
* Delete (for admins/experts)

### Add new model (POST /model)

Only for admins and experts.

Possible to add new model. Name, modality (Mr or Pet), manufacturer and magnetic field. See 2.4

### Edit model (PUT /model)

Only for admins and experts.

To edit. Get here from the table of models

### Delete model (DELETE /model)

Only for admins and experts.

Delete -> only it is not used by any equipment.