Technical Design for the User Mapping to Registration

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# **Functional Background**

On login successful of the user, we show off “New Registration” screen. There exists the “Menu”, which lists the options/ features. On clicking the “User Mapping” link, it should land up in “User Mapping Screen”. This consist of list of users available at that registration center. A table with User name, User ID, User Role is shown off. On clicking the particular user, his/her details should appear below and the logged-in user gets to map the selected user from table to that Station ID.

* Super admin – can map or unmap himself or other RO / RS
* RO/RS – can map or unmap other RO / RS
* One Station ID can be mapped to multiple users

The **target users** are

* Individual
* Registration officer
* Registration Supervisor

The key **requirements** are

* On successful login, show the “Registration Screen”
* Click on “User Mapping” Link in menu list
* Table with list of users at that available at that registration center should appear
* This table consist of the below fields
  + User name
  + User ID
  + User role
* On clicking the particular row for a user – That user details should be displayed below the table
* The logged-in user (SA / RO / RS) gets to make that user active or inactive i.e., mapped to that Station ID or deactivated from that Station ID respectively.
  + Super admin – can map or unmap himself or other RO / RS
  + RO/RS – can map or unmap other RO / RS
  + One Station ID can be mapped to multiple users

The key **non-functional requirements** are

* Security:
  + Should not store any sensitive information as plain text information.
  + The data which resides in the data-base should be in encrypted format.
* Network:
  + Should able to communicate to the configured URL with proper authentication.
  + The http read timeout parameter to be explicitly set, if client unable to connect to the REST service.
  + Connectivity should happen through SSL mode. The respective key to be loaded during the call.
* Authentication:
  + While connecting to the server, user authentication is required to authenticate by providing the valid credentials.
  + Invoke the Authenticate service to get the ‘JWT token’ and pass it along with the request to authenticate the request by the server.

# **Technical Approach**

The key solution considerations are –

**Service**

* On clicking the “User Mapping” list in menu tab on Registration screen, it should hit the service to fetch the user details like name, ID and role from DB.
* Create **UserMappingService** and create DTO for the same.
  + When this service is triggered for fetch() functionality - gets the user details
  + It hits DAO and repository to fetch **list<users>**
  + When a particular user is selected and made active or inactive then on saving it hits save() functionality – maps / Un-maps the user from a Station ID
  + It hits DAO and repository to map / um-map the user to a Station ID
  + Send an Alert message (say) “User mapped successfully” or an error message
* Handle exceptions in using custom Exception handler and send correct response to client.

**UI**

* Based on validation across the POJO class from the UserMappingService, build the UI screen
* Create the proper alert success/error to intimate the user.

**Apply the below common criteria**

* Audit
* Log
* Java Documentation
* Junit

**Classes**:

**UI**: UserMappingScreen

**Controller**: UserMappingController

**Service**: UserMappingService

**DAO**: UserMappingDAO

**Repository:** UserMappingRepository

**DTO**: UserMappingDTO

**DB scripts:**

Need DB script.zip

Class Diagram:

<https://github.com/mosip/mosip/blob/DEV/design/registration/_images/_class_diagram/registration-usermapping-classDiagram.png>

Sequence Diagram:

<https://github.com/mosip/mosip/blob/DEV/design/registration/_images/_sequence_diagram/registration-usermapping-sequenceDiagram.png>