WEB ROUTING

Contributions

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# Overview

This document focuses on the added contributions to the system

# Added Contributions

The following is a comprehensive list of contributions made to ***Enterprise Routing System*** in its current iteration. Brief descriptions of the solutions implemented are included. The **Issue Numbers** coincide with the **Issue Numbers** for the group project on GitHub.

* **Issue #1 – Email Validation – Shipper**
* Sends an email to a user’s new registered email account with a verbose message containing a link with the user’s verification code implemented as a parameter. This allows the controller method to get the mapping and request and validate their verification code. ***See Figure 1***
* **Issue #2 – Google ReCaptcha**
* User verification is conducted during registration. If bot activity is suspected, heightened security, via a challenge question, is enabled. ***See Figure 2***
* **Issue #7 – Email Validation – Shipper**
* (See Issue #1 description and ***Figure 1***)
* **Issue #8.1 – Admin Update User**
* Utilized a transient data value to hold the user's old email and allow the value to persist if verified that it is unchanged. Does not allow for duplicate emails as it did previously. Admins also can no longer directly change the user's password; they can select a reset password option that emails the user a link to reset their password.
* **Issue #8.2 – Update User Details**
* Utilized a transient data value to hold the user's old email and allow the value to persist if verified that it is unchanged. If the email is changed, the database is checked for duplicates. User may also update their password, and they are required to validate it via ‘Confirm Password’ second entry before changes take place.
* **Issue #9 – QoL navigation of /createdshipments**
* Implemented Spring Security, permissions-based buttons for different role access.
* **Issue #10.0-10.13 – GUI Improvements**
* Altered marquee to display customer service number and remove previous nav bar
* Created reusable assets for forms, buttons, columns, *select* inputs,
* Placed *#content* div on z-index to layer GUI elements properly
* Implemented permissions-base buttons assets around site where needed
* Refactored all ***/add*** and ***/update*** templates with form assets
* Created a columnar home page for registration and account information
* All existing forms have been updated to new assets
* **Issue #13 – Forgot Password**
* Creates a one-time-password code (referred to as otpCode in the application) for the specified user. This is sent to the users email as a parameter, and ***ForgottenPasswordController*** validates the users link matches to the database, upon approval allows for the user to reset their password only if it is a valid input and matches a confirmation.
* **Issues #14/15/22 – Dynamic Generation of Database**
* ***Enterprise Routing System*** now starts by implementing application runner. App runner is an inherent method to Spring that allows functions to run during application context. Using the database url, user, and password, the java.sql.Connection library creates a connection to the database. This allows circumvention of NULL values in required SQL fields during initialization.
* Implementation of the dynamically loaded database required identifying fields that were necessary to be populated and coding the proper initial values into the backend java via java.sql.Connection
* Implemented verbose console messages indicating database is populating.
* **Issue #16 – Database Value Assignment**
* Capped strict character limit fields to proper data types in SQL database for memory optimization.
* **Issue #18 – Duplicate User Email Addresses**
* Updated the user validator to check for duplicate email address values
* **Issue #19 – SCAC Code Strict Character Limit**
* Set restrictions to a 2-4 character code to reflect real SCAC Code standard
* **Issue #20 – Navigation Bar Refactor**
* Made the sitewide navigation bar a dynamic (expandable/collapsible) sidebar that pushes content when expanded and recenters content when collapsed.
* Rewrote ***MenuBar.css*** during refactor.
* **Issue #21 – Post-Registration Pathing to Login Page**
* Email verification link now redirects to the login page with a message claiming successful email verification.
* **Issue #23 – Asynchronous Verification Email Sending**
* Sending the verification email kept registration pages busy, so the action was made asynchronous to free the program for further processing while email is being sent
* **Issue #24 – Ambiguous Order of Google ReCaptcha Display on Registration Pages**
* Changed ReCaptcha to load upon a proper ‘false’ submission of the registration form. The captcha then displays, is navigated, and completes the form submission.
* **Issue #25 – Additions and Refactoring of UserValidator Class**
  + Complete refactoring and additions to the UserValidator Class, this was integral to many other additions in the program.
  + Refactoring this class allowed for a more thorough UserValidator.