Selenium Framework Overview

Tools:

Eclipse(Any Version)

Java(1.8)

TestNG Plugin

SVN repo

Project: EISREM\_Selenium

**Src/test/java** – Includes all test cases, test utilities, & test page factories

**AppUtils** - This package holds all utilities to support the framework

**Configuration** – This class contains all utilities for Browsers, Database, Users, Passwords, File Locations etc.

**Data** – This class contains commonly used Data. Ex. dates, numbers, text, etc.

**DBConnect** – This class contains all utilities for connecting to the SQL database

**DriverFactory** – This class contains utilities for various browser operations like open, waits, upload, download, close etc. It works with multiple browsers like Chrome, Firefox, IE and Edge.

**Enumerations**  - This class contains all utilities for constant set of values for Pages, Roles, Organization, Location etc.

**ExtentManager –**This class contains the configuration for Extent Report

**SeleniumHelper-** This class contains all utilities to navigate through browser, handling iFrames, Popups, generating random numbers and alphabets, performing actions on web elements, reading data present on web page etc.

**TestListners-** This class contain the configuration for xml report creation using Extent Manager (Extent Report)

**AppUtils.Exceptions-** This package holds all utilities to show exceptions

**ErrorTypes -** This class contains all utilities to show various types of exceptions.

**InvalidPathForExcelException -** This class contains all configurations to show exception path for Excel file is invalid.

**InvalidWebElement -** This class contains all configurations to show exception when actions cannot be performed on WebElement.

**MainException-** This class contains all configurations to show Error types, error messages and various types exceptions.

**SeleniumExceptions-** This class contains all configurations to show mainly selenium exceptions like NoSuchElementException, Timeout Exception, ElementNotSelectableException etc.

**Hooks** – This package holds all configurations to perform operation on different Modules and Pages.

**AdministratorPage** – This class contains all configurations for Login method and select/click Administrator in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**AgreementPage** - This class contains all configurations for Login method and click/select Agreement in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**BusinessUserLogIn** - This class contains all configurations for Login method for Business User in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**ClassesPage** - This class contains all configurations for Login method and click/select Classes in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**LogInPage** - This class contains all configurations for redirecting to the login page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**MainPage** – This class contains all configurations for the test suite and test class setup. Before running suite it cleans screenshot directory, reports directory and download directory. Before running class it helps specific class name, date etc.

**MyHomePage** - This class contains all configurations for Login method and click/select My Home Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**OrganizationPage** - This class contains all configurations for Login method and click/select Organizations Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**PasswordChange** - This class contains all configurations for Login method and click/select Password Change in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**PeoplePage** - This class contains all configurations for Login method and click/select People Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**QuickLinksPage** - This class contains all configurations for Login method and click/select Quick Links Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**ReportsPage** - This class contains all configurations for Login method and click/select Reports Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**SearchPage** - This class contains all configurations for Login method and click/select Search Page in different environments like Dev, UAT and Local. If failed to do perform task take a Screenshot of error.

**Admin-** This Package holds Page Factories for Admin operations.

**ForgotPasswordPage –** This class contains all configurations for operations to be performed on Forgot Password Page like Set Verification Code, Email me my forgotten password, Verify success etc.

**ForgotUsernamePage -** This class contains all methods for operations to be performed on Forgot Username Page like Set Verification Code, Email me my Username, Verify success etc.

**LoginAssistance -** This class contains all methods for operations to be performed on Login Page like reading login title and click login.

**LogInPage -** This class contains all methods for operations to be performed on Log In Page like Set Username, Set Password, Login etc.

**NavigationMenuBar -** This class contains all methods for operations to be performed on Navigation Menu Bar like to navigate through app using Logout, Organization, Assessment Form, Notes, People etc.

**PasswordChangePage -** This class contains all methods for operations to be performed on Password change Page like Set Current password, New Password, Confirm New Password etc.

**Administrator-** This package holds all configurations to support Administrator operations.

**AdministratorMessagesPage –** This class contains all configurations for administrator messages handling operations like reading message, toggles Active/Inactive etc.

**AdministratorNavigator –** This class contains all methods to navigate through administrator tab.

**LookupsPage –** This class contains all methods to handle lookups page operations and navigate through it.

**NotificationsPage-** This class contains all methods to handle notifications tab and to navigate through it like Sending/Receiving Notification, send to whom, when etc.

**PagesPage –** This class contains all methods to handle pages tab and to navigate through it.

**RolesPage –** This class contains all methods to handle roles tab and to navigate through its operations like adding/removing roles for various modules.

**TypesPage-** This class contains all methods for various operations of administrator like notes, assessments etc.

**Agreement**- This package holds all Page Factories to support Agreements tab.

**AgreementNavigator**- This class contains Page Factories to navigate to the agreements tab on the navigation menu.

**AgreementPage** – This class contains Page Factories to perform various actions on the agreement page.

**FundSourceAccord** – This class contains Page Factories to perform various operation on the Fund source page like selection of service type, amount, settlements, etc.

**Assessment\_Forms –** This package holds all Page Factories to handle Assessment Forms.

**Assessment\_FormsNavigator-** This class contains all Page Factories to navigate to the Assessments Form in the navigation menu.

**Assessment\_FormsPage-** Thisclass contains all Page Factories to perform actions on forms page like fill the form and adding the assessment.

**Authorization** – Thispackage holds all Page Factories to support authorizations.

**AuthorizationNavigator -** Thisclass contains Page Factories to navigate to the authorizations tab in the navigation menu.

**AuthorizationPage** – This class contains all Page Factories to perform actions on the authorizations page.

**Classes -** Thispackage holds all Page Factories to support classes operations.

**ClassesNavigator-** This class holds Page Factories to navigate through attendance management like rosters, schedules, outcome etc.

**ClassesPage –** This class holds Page Factories to add classes and its various parameters like title, notes, seats, location, etc.

**RosterPage-** This class holds Page Factories to set roster for user with multiple operations like specialties, accommodation, payment, etc.

**SchedulePage -** This class holds Page Factories to set schedule like setting start time and end time.

**CommonPage –** This package holds all Page Factories to support common pages.

**AddressPage** – This class holds Page Factories to fill details in address page like EX. Address type, start date, zip, city, state etc.

**ChangePasswordPage –** This class holds all Page Factories to change password like EX. Set current password, new password, confirm new password etc.

**ConductedTypes-** This class is used for organizations assessments and types of the assessments to fill different types of forms.

**DataTable –** This class holds functions to perform various actions on data table like anchor, select specific row and column, reading data available, edit data, etc.

**DocumentsPage –** This class is used by both People and Organizations to download document, type of format, end dating documents, etc.

**DocumentsUserPage –** This class is used by both People and Originations to set new user with all information required.

**FormPage –** This class holds all Page Factories to fill forms and to complete assessments.

**IdentifiersPage –** This class holds Page Factories to set identifiers, type of identifier, edit previous identifier, reading invalid error message, etc.

**LabelsAvailableAccord –** This class holds Page Factories to set label name, set sort order, set toggle active/inactive etc.

**MessageContentAccord** – This class is used to set message content, read message, select message content, remove content etc.

**Pagefactory** – This class contains all utilities to perform actions like click, read, set on all modules.

**PagesAvailableAccord**- This class contains all Page Factories to set page, select triggered questions and answers, add page etc.

**QuestionsAvailableAccord** – This class contains all Page Factories to select role, add role and other role related operations. It is used in people and organization.

**RowsAvailableAccord** –This class contains all Page Factories to select rows, edit, view, sort rows etc.

**SectionsAvailableAccord –** This class contains all Page Factories to set sections, set order, description, toggles etc.

**ServicePopulationAvailableAccord –** This class contains all Page Factories to add service population and set its various parameters.

**SetConditionsAccord –** This class contains all Page Factories for setting criteria, add set condition, format options, set values etc.

**WhenAccord –** This class contains all Page Factories for notifications, it set notification frequency, expiration, occurrence timer, etc.

**WhoAccord –** This class contains all Page Factories to set whom to send notifications, search user, set type, set user, etc.

**MyHomePage –** This package holds Page Factories to support Home page.

**ForwardPage –** This class holds Page Factories to forward message it helps searching available client, select client and forward message.

**MyClientsManagePage –** This class holds Page Factories to manage clients add, remove, select clients, apply filters etc.

**MyHomePage –** This class holds all Page Factories to perform actions on my home page tab like for Ex. Checking inbox, selecting results, managing clients, reports etc.

**MyInboxManagePage –** This class holds all Page Factories to manage inbox, reading message and forward to different users.

**MyReportsManagePage –** This class holds all Page Factories to manage reports, creating new reports, removing report, applying filters etc.

**Notes –** This package holds all Page Factories to support notes.

**NotesNavigator –** This class is used to navigate to the note menu in navigation menu bar.

**NotesPage –** This class holds all Page Factories for selecting notes type, organization, add title and start note.

**Organization –** This package holds all Page Factories to support organization tab.

**AdditionalOrgLocAccord –** This class holds all Page Factories for adding additional location to the organization, adding service population and check base location.

**LocationsPage –** This class is used to set location of organizations with values like name, type, phone, fax, city, zip, state etc.

**OrganizationNavigator –** This class is used to navigate to the organization tab in navigation bar. It also helps navigate into the organization menu.

**OrganizationPage-** This class holds all Page Factories for organization tab it helps adding new organization, search previous organization, anchor, edit, etc.

**ServicesSpecialtiesPage -** This class holds all Page Factories for adding service specialties, types of services, coverage area etc.

**UserHomeOfficeAccord –** This class holds all Page Factories to navigate to the user home base location, edit, add new location etc.

**UserInfoAccord –** This class holds all Page Factories to navigate to the user info page, username, password, active toggle etc.

**UserStaffPage –** This class holds all Page Factories to add new user to the organization, set telephone, active toggle, set email, etc.

**People –** This package holds all Page Factories to support people tab.

**AssociationsPage –** This class holds all Page Factories for associations tab this helps adding organizations associate, individual associate, service population etc.

**CriticalInforamtionPage –** This class holds all Page Factories to add critical information and type of information.

**DemographicsPage –** This class holds all Page Factories to add and show individual’s personal information like name, date of birth, citizenship, marital status etc.

**DiagnosisPage –** This class holds all Page Factories to add and show individuals diagnosis information it shows previously diagnosed dieses and helps adding new diagnosis information.

**EnrollmentStatusPage -** This class holds Page Factories for enrollment status tab user can chose from various types of status and set description.

**LanguagePage –** This class holds Page Factories to set persons primary language and proficiency in language.

**LivingArrangementPage –** This class holds Page Factories to show persons living arrangements it also helps in adding new arrangement with various options like Ex. Alone, Lives with related person, Lives with unrelated person etc.

**OtherNamesPage –** This class holds Page Factories to add another name of person like Ex. Former name, adoptive name, nick name, legal change etc.

**PeopleClassesPage –** This class holds Page Factories to add and view new classes in person, user can choose type of class, payment date, payment confirmation number, status, special accommodations etc.

**PeopleNavigator –** This class is used to navigate to the people menu in navigation menu bar. It also helps accessing all the tabs present in people menu Ex. People, associations, demographics, address, identifier, relationships, diagnosis, payments etc.

**PeoplePage –** This class holds all Page Factories to show, search, add, edit personal information of the user.

**RaceEthnicityPage –** This class holds Page Factories to add individuals place of birth, religion, race, and ethnicity.

**RelationshipsPage -**  This class holds Page Factories to add and edit persons relationship with relationship type and information of related person with their address.

**ResidentialPlacementPage -** This class holds Page Factories to add and edit persons residential placements with admit date, discharge date, placement type, residential placement, and residential level.

**Planning –** This package holds all Page Factories to support planning tab.

**PlanningNavigator –** This class is used to navigate through planning tab in navigation menu.

**PlanningPage –** This class contains all Page Factories to add planning with planning type, organization, title etc.

**ProcessWizard –** This package holds all Page Factories to support process wizard.

**ProcessWizardNavigator –** This class is used to navigate to the process wizard tab in navigation menu.

**QuickLinks –** This package holds all Page Factories to support quick links.

**QuickLinksNavigator –** This class is used to navigate to the Quick Links tab in navigation menu.

**QuickLinksPage –**  This class holds Page Factories to add, edit and view quick links. This helps adding new link with display name, URL, description with service population.

**ReportableEvent –** This package holds all Page Factories to support reportable events.

**ReportableEventNavigator –** This class is used to navigate to the reportable events tab in navigation menu.

**ReportableEventPage-** This class holds all Page Factories to add event with event type, organization, title etc.

**Reports –** This package holds all Page Factories to support reports.

**ReportsNavigator -** This class is used to navigate to the reports tab in navigation menu.

**Search –** This package holds all Page Factories to support search page.

**SearchPage –** This class contains all utilities to set searches through different modules it also helps to set start date, end date, value, conditions, types etc.

**Src/test/resources –** It contains all log files, configuration files, downloaded and uploaded documents.

**ConfigFiles –** It is used to define Configuration settings, paths, root logger, appender, filed locations, layout and patterns, static data, and messages.

**Log** – It contains log files of application and chrome driver log. Application log is used for the test initiation. Chrome driver log is used to start chrome driver.

**UploadDocuments -**  It holds documents to upload in test.

**Build -**  This folder contains all the screenshots.

**Download -**  This folder contains logo and excel files.

**Driver -**  This folder contains driver files of the chrome and msedge browsers.

**Framework Resources –** Thisfolder contains information about selenium automation business testing steps. This document has step by step information running selenium automation tests.

**Step 1: Update From Repository -**  This is used to Push any changes made or new files added in automation framework.

**Step 2: Clean Project -** This is used to remove any errors which are occurred during updating the repository.

**Step 3: Verify your environment and adjust if needed –** It is used to verify the testing environment. For business this would be UAT.

**Step 4: Running a test –** This step is for running a test assigned to a BHOPS tickets.

**Excel File Locations –** This helps to navigate to the specific location of test cases in teams app.

**TestNG XML Runner –** This folder contains XML files of all Suites with test cases and their paths, it is used for weekly runs in Jenkins.

**BusinessRegression –** This XML file contains test cases and paths of Business Suite for all modules present. It is used for Business run in Jenkins.

**Example –** This XML file contains sample test cases and paths for the Jenkins run.

**Regression –** This XML file contains all test cases and paths of Regression Suite for all modules present. It is used for regression run in Jenkins.

**Release2021 –** This XML files contains all test cases and paths of Release 2021 suite for the Jenkins run.

**Release2022 –** This XML file contains all test cases and paths of Release 2022 suite for the Jenkins run.

**Test-output -** This folder contains debug logs, errors detections

**Pom.xml** - The pom XML file contains information of project and configuration information for the maven to build the project such as dependencies, build directory, source directory, test source directory, plugin etc.

**Maven Plugins**

**Dependencies**

**Name**: Selenium HQ

**Version** : 4.1.0

**Description**: Provides WebDriver to Automate WebBrowser

**Name**: TestNG

**Version**: 7.4.0

**Description**: It makes automated tests more structured, readable, maintainable and user friendly. It provides many features and reporting

**Name**: Cucumber (JAVA)

**Version**: 6.8.1

**Description**: It is used to run test with java

**Name**: Cucumber (TestNG)

**Version**: 6.8.1

**Description**: Cucumber is a tool that supports Behaviour Driver Development(BDD) a software development process that aims to enhance software quality. TestNG is a testing framework inspired from Junit and NUnit.

**Name**: Master Thought (Reporting)

**Version**: 5.3.1

**Description**: Provides pretty HTML reports for cucumber. It works by generating html from the cucumber json file.

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**Version**: 5.3.0

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**Name**: Log4j

**Version**: 1.2.17

**Description**: It is Java based logging utility. It is used to keep track of what happens in software application.

**Name:** slf4j

**Version**: 1.7.33

**Description**: Simple Logging Façade for Java acts as a façade for different logging frameworks (e.g java. util. logging, logback, log4j)

**Name**: aventstack (Extent Reports)

**Version**: 4.0.9

**Description**: Extent reports is used for creating visually attractive reports during test automation. It produces HTML based documents in graphs, pie charts, screen shots, custom logs and test summaries in Java and .Net

**Name**: Cucumber (jvm deps)

**Version**: 1.0.6

**Description**: Cucumber jvm is a transitive dependency (it’s a pom) and the version of Junit.

**Name**: Apache poi

**Version**: 4.1.2

**Description**: It provides stream-based processing which is useful for large files and takes less memory. It is helpful for handling multiple formats of spreadsheets.

**Name**: Apache poi (OOXML)

**Version**: 4.1.2

**Description**: It provides Java API for manipulating various file formats based on Office Open XML (OOXML) standard.

**Name**: Oracle Database

**Version**: 19.7.0.0

**Description**: It provides database connectivity to oracle database server through the standard JDBC API available in Java

**Name**: GitHub BoniGarcia (Web Driver Manager)

**Version**: 5.0.3

**Description**: WebDriverManager automates the Browser setup in the selenium code. It downloads the latest version of browser.

**Name**: Apache Commons

**Version**: 3.8.1

**Description**: It is a full featured package of utility classes which aimed to extending the functionality of the Java API

**Name**: Mybatis

**Version**: 3.5.6

**Description**: It simplifies the implementation of database access. It provides support for custom SQL, stored procedures, and different types of mapping relations.

**Profiles**

**Names:** Regression Suite, Sample Suite, Release 2021 Suite, Release 2022 Suite, Business Regression suite

**Maven Clean Plugin**: It attempts to clean files and directories generated by Maven during its build.

**Maven Resources Plugin**: It copies files from input directories to an output directory. It has three goals.

1. resources – copy resources that are part of the main source code to the main output directory
2. testResources – copy resources that are part of the test source code to the test output directory
3. copy-resources – copy arbitrary resources files to an output directory, requiring us to specify the input files and output directory

**Maven Compiler Plugin**: It is used to compile the source code of Maven project. It has two goals.

1. Compile- compile main source files
2. Testcompile – compile test source files

**Apache Maven Plugin**: It is used to perform specific goal. There are two types of maven plugin.

1. Build – These plugins are executed at the time of build. These plugins should be declared inside the <build> element.
2. Reporting- These plugins are executed at the time of site generation. These plugins should be declared inside <reporting> element.

**TestNG XML Runner/Regression.xml**: This xml file contains all test cases from the Regression suite.

**Maven Jar Plugin:** It provides the capability to build jars files that contains a set of resource files or java class files.

**Maven Install Plugin:** The install plugin is used during the install phase to add artifact to the local repository. The Install plugin uses the information in the POM to determine the proper location for the artifact within local repository.

**Maven Deploy Plugin**: The deploy plugin is primarily used during the deploy phase, to add your artifact to remote repository for sharing with other developers and projects.