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• Business Objective

The most important part of a company is its assets, but it is just as important to keep track of its assets. Without asset management, the company won’t be able to maximize its productivity and potential. If assets cannot be tracked, the company’s workforce cannot be fully utilized. With Asset Management, you will be able to keep track of all the company’s assets.

Here are the actions that the user will be able to perform:

• Login

• Add employee

• View all assets

• Add asset

• Update Asset

• Functionality

• User should be able to add an employee and their details

• User should be able to search for an employee and be able to view the assets that are tagged to them

• User should be able to view the assets

• User should be able to add assets

• User should be able to update the assets

• User should be able to remove an asset.

• Services for Customer

• The user can use the application to keep track of and manage the company’s assets.

• Scope and Limitations

• The scope of the application shall be limited to add employees, add and manage the company’s assets.

• Only one employee can be added at a time.

• Only one asset can be added at a time

• Design Considerations / Assumptions:

• You can store the data in Http Session or Cache or in-memory database

• Do not use any file system to store the data

• The user credentials to login to the application: **admin / admin**

• http://host:port/contextroot/{path}

In the above URL**,** *contextroot* isthe Context root of the application. You can use any value for context root in your local environment during development but **do not hardcode it in the application source code**, as the system will replace it with the dynamically generated name as context root and deploy in the application server to validate the functional test cases using selenium web driver API. In case if you are not using the context root (**say for example, Dot Net core and NodeJS applications may not really have the context root**), it will be replaced with blank.

For example:

Java: http://localhost:8080/contextroot/login

NodeJS: http://localhost:3000/login

(PORT number will be provided as an environment variable, use process.env.PORT)

Dot Net: http://localhost:5001/login

• Do not refer any third-party libraries (CSS/JS libraries) directly from internet in the code, instead download them and use as local reference.

**• Variable Identifier** of HTML should be id/name for input types, id for <div> and anchor text for <a> tags. It should be followed strictly.

**• Do not hard code port number and context root anywhere in the code**

• UI Screens / Pages

**Please read the below points carefully before you start the development of the use case.**

Each page should have the following:

• Title of the page

• All the input elements to capture the user input

• Buttons/Links for any action like submit, cancel etc.,

**• All the HTML elements should have id or name attribute**

**• Element id or name should be unique and is case sensitive. If you use different names, the automated functional test cases will fail.**

• Success or Error message to be displayed should be wrapped in a <div> tag with the documented id/name. Please note the div id name is case sensitive.

**• Please use the success / error messages documented as is, otherwise the automated functional test cases will fail.**

**• Please use the design considerations / assumptions section to configure the master data like user credentials, initial amount, account number etc., without which the functional tests will fail.**

• The colours and the data that appear in the sample screenshots of the views below are only indicative. You can choose to ignore using background colours for pages as it is **Optional** and in no way effects the functionality or evaluation of the application.

• Login Page

This page allows the user to login into the asset management application.

Customer should be able to login into the application by providing all the data in mandatory fields.

An error message should be displayed when the mandatory field is missing. On successful login, take the user to home page.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/login

Title of the page

Login

User Name

Label

User Name

Text Box

Yes

Id = ‘txtUserName’

Password

Label

Password

Text Box

Yes

Id = “txtPassword”

Combination of alpha and numeric characters

Login

Button

Yes

Id = “btnSignin”

Invalid Username or Password

On successful login, navigate to home page otherwise display error message

Error Message

Div

Id = ”errorMsg”

Global div tag to display Error Message: “Invalid Username or Password”

• Home Page

The Home page gives the user the ability to navigate to the system pages.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/home

Title of the page

Asset Manager – Home

Name of User

Label

Id = “lblUserName”

Displayed as “Hello <<userName>>“

Ex: Hello admin

Logout

Hyperlink / a href

Link text = “Logout”

Ex: <a href=””>Logout</a>

Kill the session and take the user to login page

Add Employee

Button

Yes

Id = “btnAddEmployee”

Navigate to the Add Employee screen

View Asset List

Button

Yes

Id = “btnViewAssets”

Navigate to the View Asset List screen

Add Asset

Button

Yes

Id = “btnAddAsset”

Navigate to the Add Asset screen

• Add Employee Screen

The Add Employee Screen should allow the user to enter employee details.

All text fields should not allow more than 30 characters by default unless it is explicitly mentioned at field level.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/addemployee

Title of the page

Add Employee

Home

Link / a href

Link text= ”Home”

Ex: <a href=””>Home</a>

Navigate to Home page

Welcome message

Label

Id = “lblUserName”

Displayed as “Hello <<userName>>”

For ex: Hello admin

Logout

Hyperlink / a href

Link Text = “Logout”

Ex: <a href=””>Logout</a>

Kill the session and take the user to login page

Employee ID

Label

Employee ID

Text Box

Yes

Id = “txtEmployeeID”

If empty, display error message: Employee Id is mandatory field

If not alpha numeric: Employee Id should be alpha numeric

Allows the user to enter Employee ID into the text field

Must be Alpha numeric

Employee Surname

Label

Employee Surname

Text Box

No

Id=”txtSurname”

If invalid, the error message should be: Only alphabets allowed

Allows the user to enter Surname into the text field

Only alphabets allowed

Employee Name

Label

Employee Name

Text Box

Yes

Id=”txtName”

If empty, display error message: Employee Name is mandatory field

If Invalid: Only alphabets allowed

Allows the user to enter Employee Name into the text field

Only alphabets allowed

Mobile Number

Label

Mobile Number

Text Box

No

Id=”txtMobile”

If invalid, display error message: Mobile No field accepts only Numeric Value

Allows the user to enter Mobile number

Numeric field, only numbers allowed

Location

Label

Location

Text Box

No

Id=”txtLocation”

If invalid, the error message should be: Only alphabets allowed

Allows the user to enter Location

Only alphabets allowed

Designation

Label

Designation

Text Box

Yes

Id=”txtDesignation”

If invalid, the error message should be: Only alphabets allowed

Allows the user to enter Designation

Only alphabets allowed

Add Employee

Button

Yes

Id=”addEmployee”

On successful, take the user to home page.

On failure, Display message “Error occurred while saving” in the same page.

Click to save employee details if the data is valid. Otherwise, display error message.

Error Message

Div

Id=”errorMsg”

Global div tag to display Error Message

• Add Asset

The add asset screen allows the user to add new Assets to the system.

All text fields should not allow more than 30 characters by default unless it is explicitly mentioned at field level.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/addasset

Title of the page

Add Asset

Home

Hyperlink / a href

Link Text = “Home”

Ex: <a href=””>Home</a>

Navigate to Home page

Name of User

Label

Id = “lblUserName”

Displayed as “Hello <<userName>>“

For ex: Hello admin

Logout

Hyperlink / a href

Link Text = “Logout”

Ex: <a href=””>Logout</a>

Kill the session and take the user to login page

Asset Details

Label

Yes

Id =”lblAssetDetails”

Asset Id

Label

Asset Id

Text Box

Yes

Id =”txtAssetID”

On save, If Asset Id is empty display the error message:

Asset Id is mandatory

If Invalid, error: Asset Id should be alpha numeric

Allows the user to enter Asset Id

Should be Alpha numeric

Product Name

Label

Product

Text Box

Yes

Id =”txtProduct”

On save, if the Product field is empty display error message: Product field is mandatory

If Invalid, error: Product should be alpha numeric

Allows the user to enter Product field

Should be Alpha numeric

Model Name

Label

Model

Text Box

Yes

Id =”txtModel”

On save, if the Model field is empty, display error message: Model field is mandatory

If Invalid: Model should be alpha numeric

Allows the user to enter Model field.

Should be Alpha numeric

Condition

Label

Condition

Text Box

Yes

Id =”txtCondition”

On save, if Condition field is empty, display error message: Condition field is mandatory.

If Invalid: Condition should be alphabets only

Allows the user to enter Condition of the product. Should allow only alphabets

Product Color

Label

Color

Text Box

Yes

Id =”txtColor”

On save, if color field is empty display error message: Color field is mandatory.

If Invalid: Color should be alphabets only

Allows the user to enter color of the product.

Should allow only alphabets.

In Use

Label

In Use

DropDown

Yes

Id =”drpInUse”

Dropdown with allowed values Yes/No

By default, No is selected

Employee Id

Label

Employee Id dropdown field

DropDown

Yes

Id =”drpEmployeeID”

Allows the user to select the Employee Id to be linked to the asset

Dropdown will contain employee Id’s of all the employees saved through Add Employee screen

Add Asset

Button

Yes

Id =”btnSave”

On successful, take the user to home page.

On failure, Display message “Error occurred while saving” in the same page.

Click to save asset details if the data is valid. Otherwise, display error message.

Error Message

Div

Id = ”errorMsg”

Global div tag to display Error Message

• View Assets List

This page displays the list of assets sorted by Asset Id, ascending order. On page load, do not display any search results. Allows the user to search the list of assets tagged to an Employee ID. User can search by either entering asset id or employee id or both. At least one input is mandatory to search.

Partial search is not allowed. User should enter full/complete asset id and employee id to search.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/viewassetlist

Title of the page

View Asset List

Home

Hyperlink / a href

Link text =”Home”

Ex: <a href=””>Home</a>

Navigate to Home page

Name of User

Label

Id = “lblUserName”

Displayed as “Hello <<userName>>”

For ex: Hello admin

Logout

Hyperlink / a href

Link text= “Logout”

Ex: <a href=””>Logout</a>

Kill the session and take the user to login page

Asset Id

Label

Search

Asset Id

Text Box

No

Id =”txtSearchAssetId”

Allows the user to enter Asset Id to be searched

Employee Id

Label

Search

Employee Id

Text Box

No

Id=”txtSearchEmployeeId”

Allows the user to enter Employee Id to be searched

Search

Button

Yes

Id =”btnSearch”

• Click of search button will fetch the results based on the search criteria.

• If no data is fetched for the search criteria- Display error message - “No records found”

Asset Id

Column heading

Product

Column heading

Model

Column heading

Color

Column heading

Condition

Column heading

In Use

Column heading

Asset Id

Hyperlink / a href

Yes

Link text =”AssetId what you created”

See the screenshot for more details.

For e.g.,:

<a href=””>Asset123</a>

On click, it will navigate to the Update Asset screen for the selected Asset

Note: The Asset details for the selected Asset Id should be pre-filled in the Update Asset page

Product

Label (value)

Yes

Id=”prod\_1” for row 1

Id=”prod\_2” for row 2

etc., till row n

For e.g.:

<label id=”prod \_1”>Prod123</label>

Model

Label (value)

Yes

Id=”model\_1” for row 1

Id=”model\_2” for row 2

etc., till row n

For e.g.:

<label id=”model\_1”>Model123</label>

Color

Label (value)

Yes

Id=”color\_1” for row 1

Id=”color\_2” for row 2

etc., till row n

For e.g.:

<label id=”color\_1”>Black</label>

Condition

Label (value)

Yes

Id=”condition\_1” for row 1

Id=”condition \_2” for row 2

etc., till row n

For e.g.:

<label id=”condition \_1”>New</label>

In Use

Label (value)

Yes

Id=”inUse\_1” for row 1

Id=” inUse \_2” for row 2

etc., till row n

For e.g.:

<label id=” inUse \_1”>No</label>

Error Message

Div

Id=”errorMsg”

Div tag to display Error Message: No records found

• Update Asset

Update Asset screen allows the user to update the Asset details.

Note: On load, the Update Asset screen will be auto-populated with the asset details of the asset selected in the View Asset List page.

All text fields should not allow more than 30 characters by default unless it is explicitly mentioned at field level.

**Field / Page attribute**

**HTML Element Type**

**Required**

**Identifier**

**Validation Message**

**Remarks**

URL

http://host:port/contextroot/updateasset

Title of the page

Update Asset

Home

Hyperlink / a href

Link text=”Home”

Ex:<a href=””>Home</a>

Navigate to Home page

Name of User

Label

Id = “lblUserName”

Displayed as “Hello <<userName>>“

For ex: Hello admin

Logout

Hyperlink / a href

Link text=” Logout”

Ex:<a href=””>Logout </a>

Kill the session and take the user to login page

Asset Details

Label

Yes

Id =’lblAssetDetails’

Asset Id

Label

Asset Id

Text Box

Yes

Id =”txtAssetID”

Please see Add Asset section for more details

Product Name

Label

Product

Text Box

Yes

Id =”txtProduct”

Please see Add Asset section for more details

Model Name

Label

Model

Text Box

Yes

Id =”txtModel”

Please see Add Asset section for more details

Product Condition

Label

Condition

Text Box

Yes

Id =”txtCondition”

Please see Add Asset section for more details

Product Color

Label

Color

Text Box

Yes

Id =”txtColor”

Please see Add Asset section for more details

In Use

Label

In Use dropdown

DropDown

Yes

Id =”drpInUse”

Please see Add Asset section for more details

Employee Id

Employee Id dropdown field

DropDown

Yes

Id =”drpEmployeeID”

Please see Add Asset section for more details

Update Asset

Button

Yes

Id =”btnSave”

On successful, take the user to home page.

On failure, Display message “Error occurred while saving” in the same page.

Click to save employee details if the data is valid. Otherwise, display error message.

Error Message

Div

Id = ”errorMsg”

Global div tag to display Error Message

• Application Flow

**Current Page**

**Action**

**Next / Landing Page**

Login

Login – Success

Home Page

Login

Login – Failure

Display Login page with error message

Home Page

Click on “Add Employee” Button

Add Employee Page

Add Employee Page

Click on “Add Employee” Button

Display home page if the employee is successfully added, otherwise display the validation or error message

Add Employee Page

Click on “Home” Link

Home Page

Home Page

Click on “Add Asset” Button

Add Asset Page

Add Asset Page

Click on “Add Asset” Button

Display home page if the asset is successfully added, otherwise display the validation or error message

Add Employee Page

Click on “Home” Link

Home Page

Home Page

Click on “View Asset List” Button

View Asset List Page

View Asset List Page

Click on “Search” Button

Display the result grid if the asset is found, otherwise display the validation or error message

View Asset List Page

Click on “Asset Id” Link

Update Asset Page

Update Asset Page

Click on “Update Asset” button

Display the success message if the asset is successfully updated, otherwise display the validation or error message

Update Asset Page

Click on “Home” Link

Home Page

Home Page

Click on “Logout” link

Login Page