<u>Shell Foundation – Final Case Study Document</u>

AKANKSHA GOEL

GitHub Repository Link: Akankshagoel-06/shell casestudy (github.com)

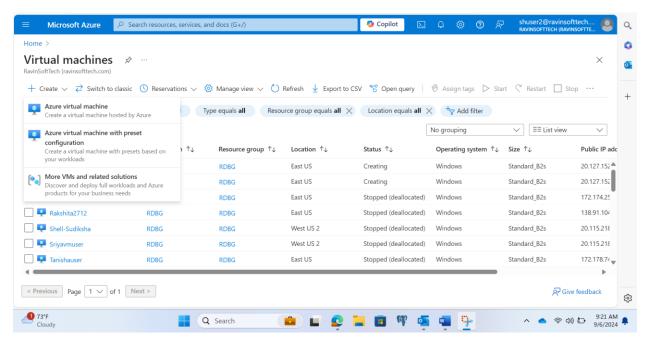
Website (OrangeHRM): OrangeHRM (orangehrmlive.com)

Objective: To test the concepts of SDLC, Agile, Software Testing, DBMS and CI/CD pipeline.

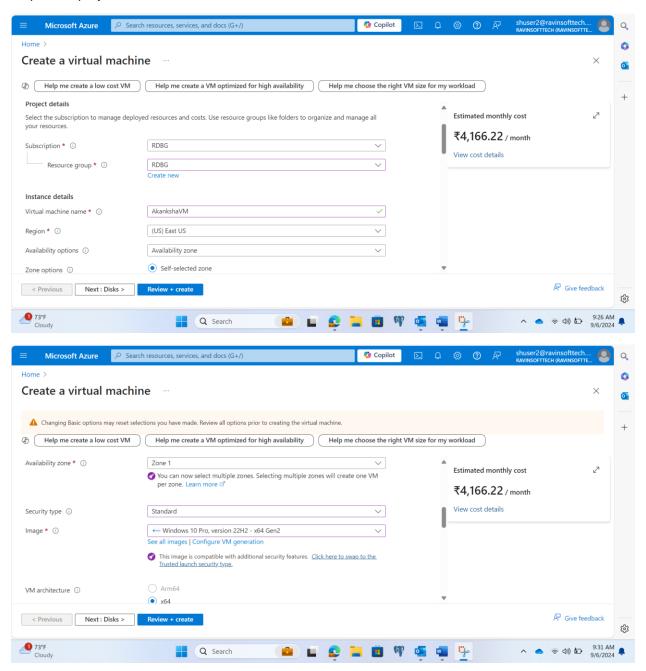
SDLC, Agile and Software Testing

Creation of Azure VM

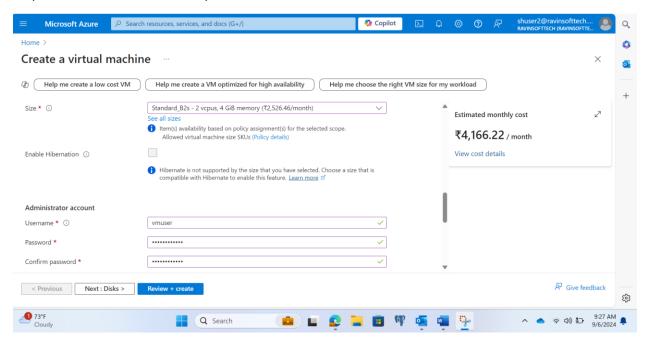
Step 1: Login to azure and click on create Azure VM



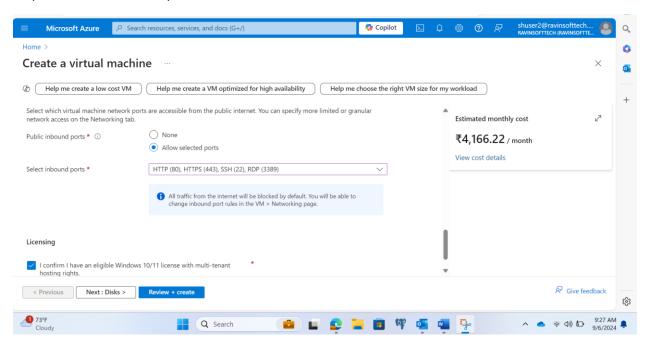
Step 2: Set project details as shown below



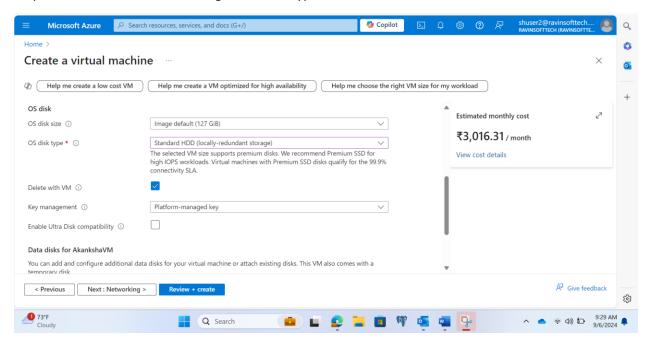
Step 3: Enter the username and password for the VM



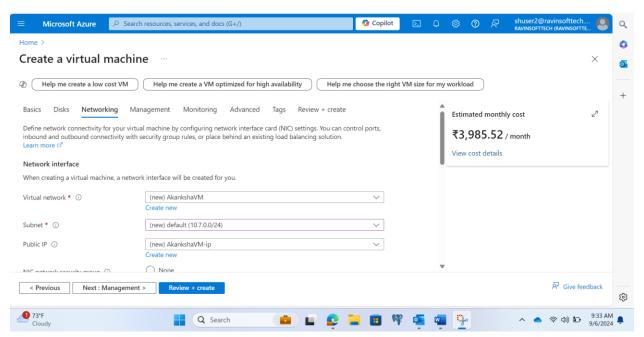
Step 4: Select all inbound ports



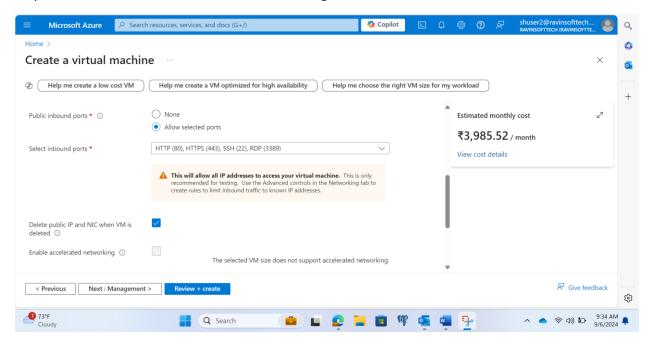
Step 5: Go to Next:Disks and configure OS disk type as shown below



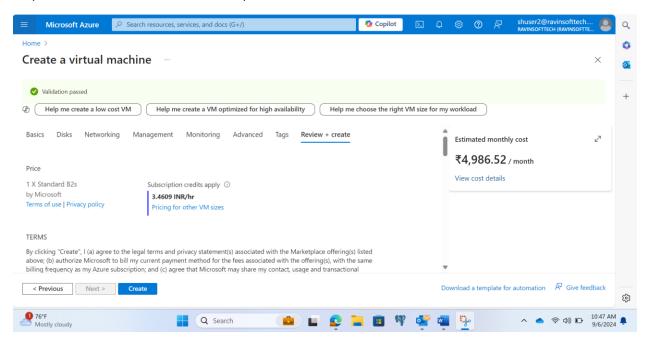
Step 6: Click on Next: Networking and configure as shown below



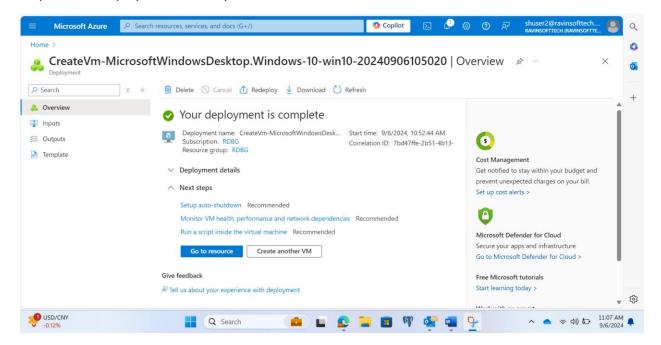
Step 7: Click on Review+Create to Validate the configuration.



Step 8: Click on Create after validation passes.



Step 9: VM is deployed successfully.



USER Stories, Test Cases & Defect Reports Implementation

US_001: Admin Dashboard Functionality

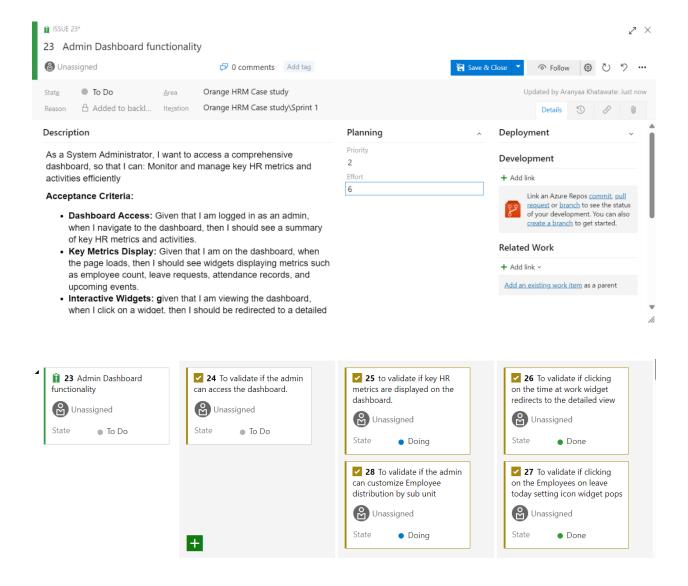
Title: Admin Dashboard Functionality

As a System Administrator, I want to access a comprehensive dashboard, so that I can: Monitor and manage key HR metrics and activities efficiently

Acceptance Criteria:

- **Dashboard Access:** Given that I am logged in as an admin, when I navigate to the dashboard, then I should see a summary of key HR metrics and activities.
- **Key Metrics Display:** Given that I am on the dashboard, when the page loads, then I should see widgets displaying metrics such as employee count, leave requests, attendance records, and upcoming events.
- Interactive Widgets: given that I am viewing the dashboard, when I click on a widget, then I should be redirected to a detailed view of the respective metric (e.g., clicking on leave requests should take me to the leave management page).

Priority: 2 Effort: 6



Description: To validate if the admin can access the dashboard.

Given the admin is logged in to the website <u>OrangeHRM (orangehrmlive.com)</u> using the valid username "Admin" and valid password "admin123".

When the admin clicks on the "Dashboard" tab.

Then the admin should be navigated to the dashboard page displaying key HR metrics and activities.

URL: https://opensource-demo.orangehrmlive.com/web/index.php/dashboard/index

S.	Username	Password	Page accessibility (Pass/Fail)	
No.				
			Actual	Expected

1	Admin	admin123	Pass	Pass	
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Description: To validate if key HR metrics are displayed on the dashboard.

Given the admin is logged in to the website <u>OrangeHRM (orangehrmlive.com)</u> using the valid username "Admin" and valid password "admin123".

When the admin navigates to the dashboard page.

Then the dashboard should display widgets for Time at work, Quick Launch, Buzz latest posts, My actions, Employees on leave today, Employee Distribution by Sub Unit, Employee Distribution by Location

URL: https://opensource-demo.orangehrmlive.com/web/index.php/dashboard

S. No.	Dashboard Widget	Widget Displaying (Pass/Fail)	
		Actual	Expected
1	Time at work	Pass	Pass
2	Quick Launch	Pass	Pass
3	Buzz latest posts	Pass	Pass
4	My actions	Pass	Pass
5	Employees on leave	Pass	Pass
	today		
6	Employee Distribution by	Pass	Pass
	Sub Unit		
7	Employee Distribution by	Pass	Pass
	location		

TC_003

Description: To validate if clicking on the time at work widget redirects to the detailed view of the respective metric.

Given the admin is logged in to the website <u>OrangeHRM (orangehrmlive.com)</u> using the valid username "Admin" and valid password "admin123".

When the admin clicks on the "Time at work" widget clock icon on the dashboard.

Then the admin should be redirected to the "Punch In" page

URL: https://opensource-demo.orangehrmlive.com/web/index.php/attendance/punchIn

S. No.	Dashboard Widget	Clicking on clock icon	
		redirects (Pass/Fail)	
		Actual	Expected
1	Time at work	Pass	Pass

Description: To validate if clicking on the Employees on leave today setting icon widget pops up a sub menu

Given the admin is logged in to the website <u>OrangeHRM (orangehrmlive.com)</u> using the valid username "Admin" and valid password "admin123".

When the admin clicks on the setting icon of the Employees on leave today widget

Then a pop up should appear

S. No.	Dashboard Widget	Clicking on settings icon poperup a sub menu(Pass/Fail)	
		Actual	Expected
1	Employees on leave today	Pass	Pass

TC_005

Description: To validate if the admin can customize Employee distribution by sub unit widget

Given the admin is logged in to the website <u>OrangeHRM (orangehrmlive.com)</u> using the valid username "Admin" and valid password

When the admin chooses to customize the dashboard layout of the Employee distribution by sub unit by clicking on the labels below the pie chart

Then the dashboard layout should be customizable according to the admin's preferences.

S. No.	Dashboard Widget	Clicking on labels modifies
		the pie chart(Pass/Fail)

		Actual	Expected
1	Employee distribution	Pass	Pass
	by sub unit		

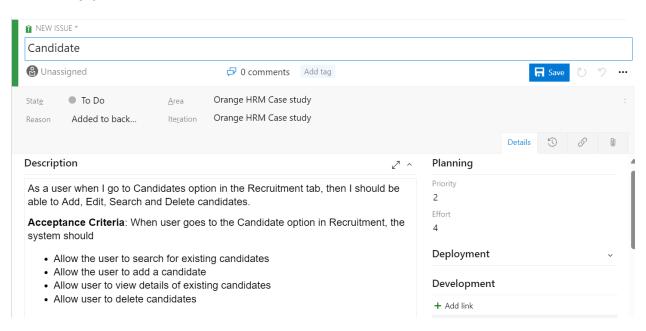
US 002: Candidate Functionality in Recruitment

Description: As a user when I go to Candidates option in the Recruitment tab, then I should be able to Add, Edit, Search and Delete candidates.

Acceptance Criteria: When user goes to the Candidate option in Recruitment, the system should

- Allow the user to search for existing candidates
- Allow the user to add a candidate
- Allow user to view details of existing candidates
- Allow user to delete candidates

Priority: 2 Effort: 4



TC 001

Description: To validate the search functionality for Candidates under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the candidates page in recruitment tab

When the user enters search criteria in the search field

And clicks the "Search" button

Then the system should display a list of candidates matching the search criteria

TC_002

Description: To validate the add functionality for Candidates under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the candidates page in recruitment tab

When the user clicks the "Add" button, fills in the candidate details

And clicks the "Save" button

Then the system should display a confirmation message

And the new candidate should appear in the list of candidates

TC_003

Description: To validate the view functionality for Candidates under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the candidates page in recruitment tab

When the user clicks on the view icon for a candidate

Then the system should display the candidate's details

TC 004

Description: To validate the edit functionality for Candidates under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently viewing a candidate's details

When the user clicks the view icone, toggles the edit button, updates the candidate's details

And clicks the "Save" button

Then the system should display a confirmation message

And the updated details should be reflected in the candidate's profile

TC 005

Description: To validate the delete functionality for Candidates under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the candidates page in recruitment tab

When the user clicks the "Delete" button for a candidate

And confirms the deletion

Then the system should display a confirmation message

And the candidate should be removed from the list of candidates

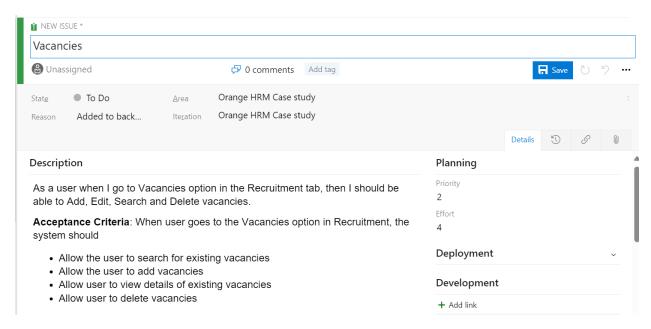
US_003: Vacancy for Recruitment

As a user when I go to Vacancies option in the Recruitment tab, then I should be able to Add, Edit, Search and Delete vacancies.

Acceptance Criteria: When user goes to the Vacancies option in Recruitment, the system should

- Allow the user to search for existing vacancies
- Allow the user to add vacancies
- Allow user to view details of existing vacancies
- Allow user to delete vacancies

Priority: 2 Effort: 4



TC_001

Description: To validate the search functionality for Vacancies under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the vacancies page in recruitment tab

When the user enters search criteria in the search field

And clicks the "Search" button

Then the system should display a list of vacancies matching the search criteria

TC_002

Description: To validate the add functionality for Vacancies under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the vacancies page in recruitment tab

When the user clicks the "Add" button, fills in the vacancy details

And clicks the "Save" button

Then the system should display a confirmation message

And the new vacancy should appear in the list of vacancies

Description: To validate the bulk deletion of Vacancies under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the vacancies page in recruitment tab

When the user selectes multiple vacancies for deletion

Then the system should bulk delete all the entries and give confirmation message.

TC_004

Description: To validate the edit functionality for Vacancies under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently viewing a vacancy's details

When the user clicks on the Edit icon for a vacancy, updates the vacancy's details

And clicks the "Save" button

Then the system should display a confirmation message

And the updated details should be reflected in the vacancy's profile

TC_005

Description: To validate the delete functionality for Vacancies under Recruitment tab

Given the user is able to access the website "OrangeHRM (orangehrmlive.com)" in chrome browser and logged in using username "Admin" and password "admin123" and currently on the vacancies page in recruitment tab

When the user clicks on the delete icon for a vacancy

And confirms the deletion

Then the system should display a confirmation message

And the vacancy should be removed from the list of vacancies

US_004: Login Page

As a user when I enter valid username and password and click on the Login button, then the system should allow me to access the home page.

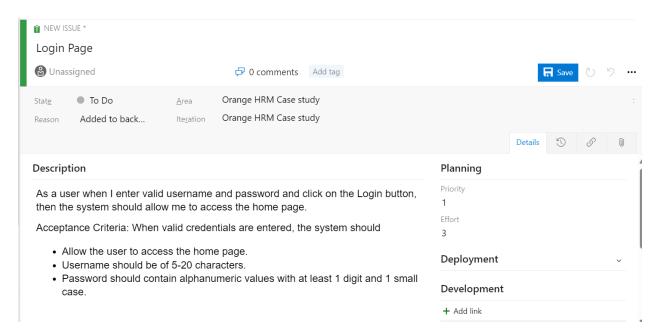
Acceptance Criteria: When valid credentials are entered, the system should

Allow the user to access the home page.

- Username should be of 5-20 characters.
- Password should contain alphanumeric values with at least 1 digit and 1 small case.

Priority: 1

Effort: 3



TC_001: To test the login functionality of login page using valid credentials

Given the user can access the application <u>OrangeHRM (orangehrmlive.com)</u> in chrome browser

When user enters valid "username" and valid "password"

And user clicks on login button

Then the user should be redirected to the Dashboard

S. No.	Username	Password	Able to login?	Expected Outcome
1	Admin	admin123	Yes	Yes

TC_002: To test if username field is editable and if the user can enter text

Given the user can access the application <u>OrangeHRM (orangehrmlive.com)</u> in chrome browser

When user clicks on the "username" field

Then the user should be able to enter the "username".

S. No.	Username
1	Admin
2	Admin123

TC 003: To test if password field is editable and if the user can enter text

Given the user can access the application <u>OrangeHRM (orangehrmlive.com)</u> in chrome browser

When user clicks on the "password" field

Then the user should be able to enter the "password".

S. No.	Password
1	admin123

TC_004: To test if a relevant message is displayed when invalid credentials are entered.

Given the user can access the application <u>OrangeHRM (orangehrmlive.com)</u> in chrome browser

When user enters invalid "username" or invalid "password"

And user clicks on login button

Then the user should get a message stating "Invalid credentials" above the username field.

S. No.	Username	Password
1	Admin	admin123

TC_005: To test the login functionality with an empty username or empty password.

Given the user can access the application <u>OrangeHRM (orangehrmlive.com)</u> in chrome browser

When user enters empty "username" or empty "password"

And user clicks on login button

Then the user should get a message stating "Required" below the respective empty field.

S. No. Username Passwor	d
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1		admin123
2	Source	

US_005: TERMINATION REASONS

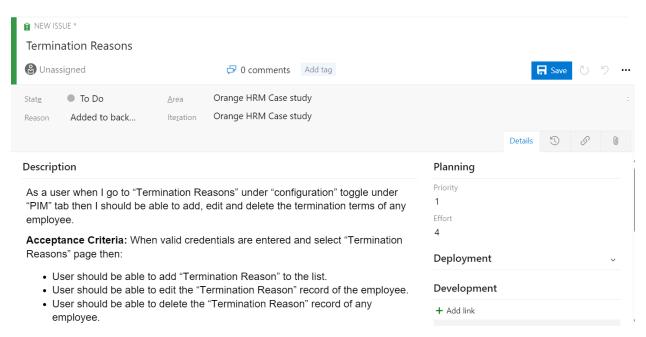
As a user when I go to "Termination Reasons" under "configuration" toggle under "PIM" tab then I should be able to add, edit and delete the termination terms of any employee.

Acceptance Criteria: When valid credentials are entered and select "Termination Reasons" page then:

- User should be able to add "Termination Reason" to the list.
- User should be able to edit the "Termination Reason" record of the employee.
- User should be able to delete the "Termination Reason" record of any employee.

Priority: 1

Effort: 4



TC_001:

Description: To validate the functionality of the "Add" button

Given the user is logged in to the website "https://opensource-demo.orangehrmlive.com/web/index.php/auth/login" in chrome web browser using the valid username "Admin" and valid password "admin123" and he is in the "Termination Reasons" tab under "Configuration" dropdown in "PIM" tab.

When the user clicks on the "Add" button

Then the user should be redirected to the page (https://opensource-demo.orangehrmlive.com/web/index.php/pim/saveTerminationReasons) which asks the user to type in the termination reason.

TC_002

Description: To check whether the Termination Reason input field in accepting text input.

Given the user is logged in to the website "https://opensource-demo.orangehrmlive.com/web/index.php/auth/login" in chrome web browser using the valid username "Admin" and valid password "admin123" and in the "Add" page in "Termination Reasons" tab under "Configuration" dropdown in "PIM" tab.

When the user clicks in the text field

Then the text field should accept user input

TC_003

Description: To validate the functionality of "Cancel" button on adding to the list on "Termination Reasons".

Given the user is logged in to the website "https://opensource-demo.orangehrmlive.com/web/index.php/auth/login" in chrome web browser using the valid username "Admin" and valid password "admin123" and in the "Add" page in "Termination Reasons" tab under "Configuration" dropdown in "PIM" tab.

When the user clicks on the "Cancel" button

Then the user should be redirected to the previous page (https://opensource-demo.orangehrmlive.com/web/index.php/pim/viewTerminationReasons)

Description: To validate the functionality of "Save" button on adding to the list on "Termination Reasons".

Given the user is logged in to the website "https://opensource-demo.orangehrmlive.com/web/index.php/auth/login" in chrome web browser using the valid username "Admin" and valid password "admin123" and in the "Add" page in "Termination Reasons" tab under "Configuration" dropdown in "PIM" tab.

When the user clicks on the "Save" button after adding the valid input

Then the inputshould be added to the list and the user should be redirected to (https://opensource-

demo.orangehrmlive.com/web/index.php/pim/viewTerminationReasons)

Bug Report (Flaky Bug)

Description: The 'Add' button is not working few times

Steps to reproduce:

- Open chrome browser
- Open the site https://opensourcedemo.orangehrmlive.com/web/index.php/auth/login
- Login using username: 'Admin' and password: admin123
- From the list select 'PIM' then go to 'Configuration' then go to 'Termination Reason' and click on 'Add' button. After entering the reason when the user clicks on save then a few times the data is not added to the list.

Time Stamp: 06/09/2024 11:55 AM

Severity: Low

Priority: Minor

Assignee: problem_dev

Expected Result: The input by user should be added to the list all the times.

Description: To validate the functionality of checkbox in the 'Termination Reasons' List

Given the user is logged in to the website "https://opensourcedemo.orangehrmlive.com/web/index.php/auth/login" in chrome web browser using the valid username "Admin" and valid password "admin123" and in the "Add" page in "Termination Reasons" tab under "Configuration" dropdown in "PIM" tab.

When the user clicks on the checkbox of the termination reason in the list

Then the user should be able to select that specific item from the list on which further functions can be performed that is deletion and updation

BUG Defect Reports:

BG 001:

Description: The field ask for Name on termination reason page instead of reason which may create a confusion

Steps to reproduce:

- Open chrome browser
- Open the site https://opensourcedemo.orangehrmlive.com/web/index.php/auth/login
- Login using username: 'Admin' and password: admin123
- From the list select 'PIM' then go to 'Configuration' then go to 'Termination Reason' and click on 'Add' button. The input field is showing to input 'Name' instead it should ask to enter the 'Reason'

Time Stamp: 06/09/2024 10:55 AM

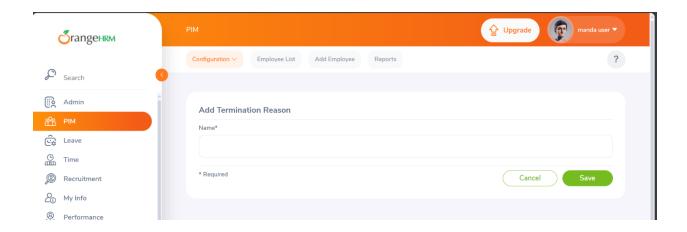
Severity: Low

Priority: Minor

Assignee: problem_dev

Expected Result: The user should be asked to enter Reason instead of Name.

Screenshot or recording:



BG_002:

Description of bug: Login successful with invalid credentials

Steps to reproduce: Open OrangeHRM in chrome browser, enter "admin" username and "admin123" password and click on login button. The user is able to successfully login

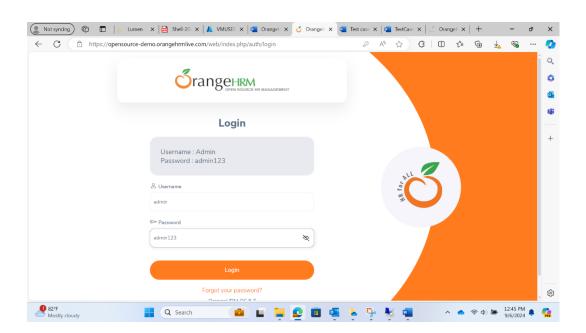
Time stamp: 06/09/2024 12:50 PM

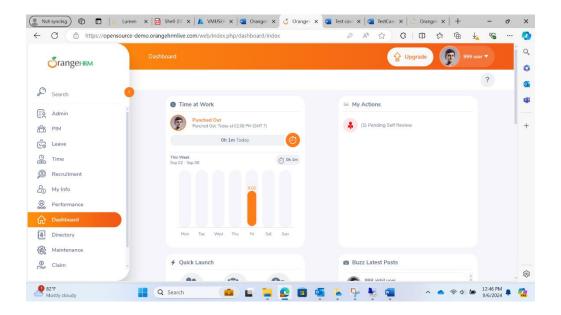
Severity: High

Priority: Major

Assignee: Developer3

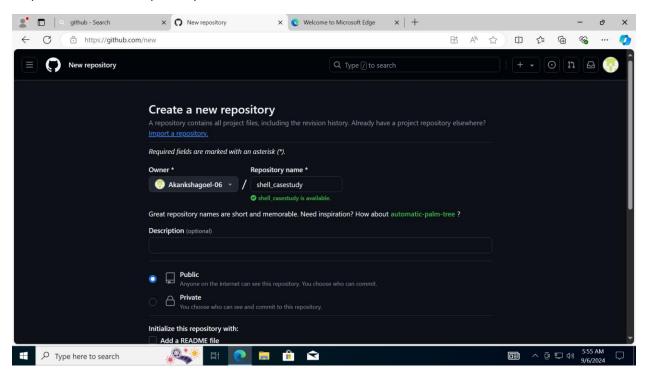
Screenshot



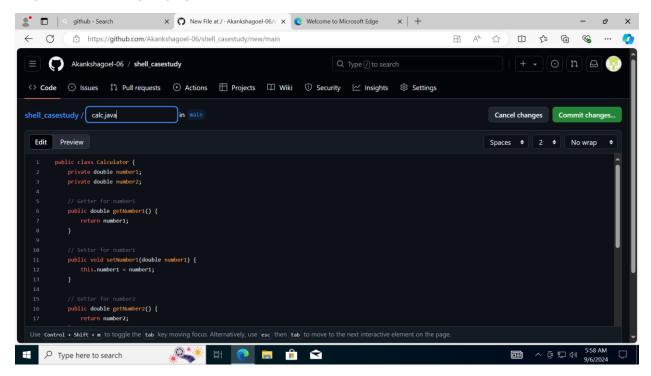


Implementing the CI/CD Pipeline using GitHub Actions

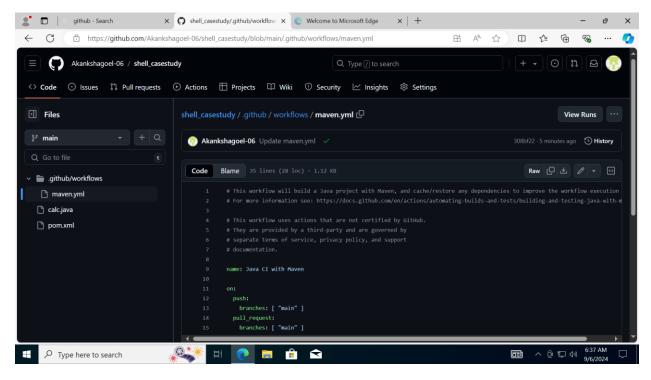
Step 1: Create a new repository.



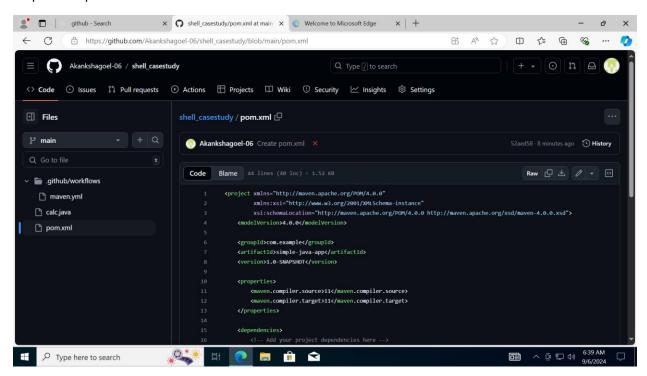
Step 2: Add code for java project



Step 3: Create Maven.yml using GitHub actions workflows.



Step 4: Add pom.xml file



Step 5: System.out.println("Answers:"); is added and java file is updated, the build is automatically deployed in the workflow

