

CURA Healthcare Service Automation Testing Project

About CURA Healthcare Service :-

Earlier days there is no prior option to take appointments from doctor to consult. Patients need to wait for a long time and even if you reach the hospital also sometimes doctors won't be available. So in order to overcome these issues CURA Healthcare Service provides a prior appointment feature to overcome the starvation and other issues. Worldwide, Cura health care service helps to track and check the availability of doctors (for cardiac or heart diseases are listed as the top health conditions and fetching many individuals regardless of their gender).

- User interact with the UI to enter into system
- Entered Login inputs are analyzed and verified as per the base line document
- Once the Login credentials are validated, patient can enable to take appointment after satisfying the requirements mentioned.

To accomplish this, we have to complete all the activities listed below:

1. Define problem/ Problem understanding
 - i. Specify the business problem
 - ii. Business impact
2. Test case Preparation
 - i. Analyze requirements
 - ii. Create the Scenario's and Collect the input data
- iii. Preparation of Test cases
- iv. Test data preparation (in the form of Validation Table) as per baseline document
 3. Script /Test case Execution under test suite and test suite collection level
 4. Handling and Validating buttons
 5. Test listeners
 6. Build delivery
 - Integrating katalon to git and jenkins
 7. Cross-browser testing using TestCloud
 8. Generating and Analyzing report and Sending report through email.

Introduction

Earlier days there is no prior option to take appointments from doctor to consult. Patients need to wait for a long time and even if you reach the hospital also sometimes doctors won't be available.

So in order to overcome these issues CURA Healthcare Service provides a prior appointment feature to overcome the starvation and other issues. Worldwide, Cura health care service helps to track and check the availability of doctors (for cardiac or heart diseases are listed as the top health conditions and fetching many individuals regardless of their gender).

Project Overview

We have a passion to deliver quality efficient and timely medical care to everyone. We look forward to the day when everyone everywhere will have access to their health data and health providers on secure open access networks where the patient owns their data. Whether it's your three year old with a fever, a hip troubling your golf game, your heart beating irregular or back pain at work we've got you covered.

Milestone 1:

Define Problem/ Problem Understanding

Explain the prerequisites and setup required to run the project.

Activity 1.1: Specify Business Problem

Providing flexible and prominent services to patient to reduce patient waiting time and Accurate and up-to-date information about doctor availability

Activity 1.2 : Business Requirements

A CURA health service project can have a variety of business requirements, depending on the specific goals and objectives of the project. Some potential requirements may include:

- Accurate and up-to-date information about doctor availability: The project should use the most recent and reliable data to classify drugs, in order to ensure that the information is accurate and relevant to current medical practices.
 - Flexibility: The classification system should be flexible and able to adapt to new drugs and changing information as it becomes available.
- Compliance: The project should comply with all relevant laws and regulations, such as FDA guidelines for classifying drugs.
- User-friendly interface: The classification system should be easy to use and understand for both medical professionals and patients

Activity 1.3 : Literature Survey

literature survey for a CURA HealthCare project would involve researching and reviewing existing studies, articles, and other publications on the topic of drug classification. The survey would aim to gather information on current scheduling/appointment systems, their strengths and weaknesses, and any gaps in knowledge that the project could address. The literature survey would also look at the methods and techniques used in previous drug classification projects, and any relevant data or findings that could inform the design and implementation of the current project.

Activity 1.4 : Social Or Business Impact

Social Impact :-Improved patient care: By providing accurate and up-to-date information on doctor availability, a CURA healthcare project can help healthcare professionals make more informed decisions about treatment options, leading to improved patient care.

Business Impact: By providing information about availability of doctors and interactions of different ways, a CURA Health project can assist in the development of new notifications if a doctor is not available on booked slots and available doctors for different issues.

Milestone 2:

Test Case Preparation

Software testing depends heavily on test data. It is the most crucial aspect to understand requirements and collect test data for the requirements if the requirements do not exist.

Activity 2.1:- Understanding Requirements

So, this section allows you to understand requirements to prepare test data for the below website.

Link : <https://katalon-demo-cura.herokuapp.com/>

Prepare Test Scenarios

After Understanding the requirements, prepare Test scenario's as per the functionalities.

Ex: (Student need to prepare Scenario's as per the below example)

Test case Development

After completing the Test scenario's , create test cases as per the template below

Validation Table

During the preparation of the test case, some functionalities populated with more inputs.

Suppose example Login, for login baseline documents have the specifications for username and password will be like

Ex:

Username Specifications:

1. Minimum 4 characters and Maximum 15 characters
2. Start with alphabet
3. Should not start with special characters
4. First letter is alphabet followed by special characters
5. Username consists of at least one capital letter

Password Specifications:

1. Minimum 6 character and maximum 20 characters
2. Start with alphabet
3. Should not start with special characters
4. First letter is alphabet followed by special characters
5. password consists of at least one capital letter
6. Password consists of at least of special character

Activity 2.2:- Convert Test Steps To Script

After developing the testcases , these test cases will be converted to test script with the help of recording modes. In Katalon we have three options to generate script

1. Record and play back mode
 2. Manual mode
 3. Script mode
- You follow either of the modes to generate script for the entire scenario'.

Note: Recommended to use three different modes for different scenario's.

TC_CURA_Login_001:

```
WebUI.openBrowser('')
```

```
WebUI.navigateToUrl('https://katalon-demo-cura.herokuapp.com/')
```

```
WebUI.click(findTestObject('Object Repository/Cura  
Pages_Login_OR/Page_CURA Healthcare Service/i_CURA Healthcare_fa fa-  
bars'))
```

```
WebUI.click(findTestObject('Object Repository/Cura  
Pages_Login_OR/Page_CURA Healthcare Service/a_Login'))  
WebUI.setText(findTestObject('Object Repository/Cura  
Pages_Login_OR/Page_CURA Healthcare  
Service/input_Username_username'),  
    'John Doe')
```

```
WebUI.setEncryptedText(findTestObject('Object Repository/Cura  
Pages_Login_OR/Page_CURA Healthcare Service/input_Password_password'),  
    'g3/DOGG74jC3Flrr3yH+3D/yKbOqqUNM')  
WebUI.click(findTestObject('Object Repository/Cura  
Pages_Login_OR/Page_CURA Healthcare Service/button_Login'))  
WebUI.closeBrowser()
```

Milestone 3:

Script/Test Case Execution

Activity 2.2:- Data-Driven Testing

Steps:

1. Create/ take a test case (TC_CURA_Login_001)
2. Create Data files(csv or xls) and add test data (TestData_CURA_Login.xls)
3. Define variables and refer in test case
4. Add your data files to katalon studio
 1. Create folder under data file : folder name: Test Data???? under folder create test data ??? browse test data you created on desktop
5. Add test case to Test suites (refer Activity 3.1)
6. Perform data binding with test data from excel
 - a. Click on show data binding
 - b. Once you click on show data binding, you get test data dialog box
 - c. Under test data???? click on add????so it will add test data file imported data file
 - d. Once it is added, perform variable binding
7. Save and run test cases

: Adding test cases to test suite and test suite collection level

In this section, we are adding test cases to test suite and test suite collection level to perform execution scenario's for parallel and cross-browser testing.

This section has the following tasks:

- Add TC_CURA_Login_001 to test suite level
- Perform Data binding
- Execute/Run and observer expected value with actual value

Test suite:

- Test suite is a collection of test cases
- Logical collection of test cases
- Test cases are grouped into categories

Test suite collection:

- It is a collection of test suits
- Why is it required
 - To group test suites logically
 - To run test suites in sequence or in parallel
 - To run test suites on multiple browser/environment

Milestone 4:

Handling And Validating Buttons

Activity 4.1: Handling And Validating Input Buttons

You can input/give some text value by using the setText() method

- WebUI.setText() : is of three categories
- WebUI.setEncryptedText()
- If password is not encrypted, To encrypt the password

Goto help???? encrypt text????give raw text????

- WebUI.setMaskedText(findTestObject, null) ??? used when you have given date format as dd/mm/yy in serchtextfiled...than that format is displayed on searchfiled

This section has the following tasks:

- For TC_CURA_Login_001, validate the Username Input field
- Validate the login successful or not

Activity 4.2 : Handling And Validating Dropdown Buttons:

The following options are available in katalon studio to select a combo box.

1. Select option by index
2. Select option by value
3. Select option by Label

This section has the following tasks:

- Generate Script for Make appointment : TC_CURA_MakeAppointment_002
- Validate "facility" dropdown button and verify if "Hongkong CURA health care center" available in the option or not

Activity 4.3 :Handling And Validating Checkbox Buttons

1. Check()
2. Uncheck()

- **Katalon provides 4 methods to work on checkbox to check whether the checkbox is checked or not**

This section has the following tasks:

- Verify whether "medicaid" checkbox option is disabled before you click on the checkbox
- perform click operation on the checkbox, and verify whether the test object is checked or not
- If the Object is checked then uncheck the object, with unCheck() method

Code:

```
WebUI.openBrowser("")
```

```
WebUI.navigateToUrl("")
```

```
WebUI.click(findTestObject(""))
```

```
unchecked = WebUI.verifyElementNotChecked(findTestObject(""),0)
if (unchecked == true) {
    System.out.println('element not checkeck')
```

```
WebUI.check(findTestObject(""))
```

```
    System.out.println('element checkeck')
}
```

```
WebUI.delay(3)
```

```
WebUI.verifyElementChecked(findTestObject(""), 0
```

Milestone 5:

Test Listeners

□

We will optimize the flow of execution in such a way that frequently used test cases are annotated with @ BeforeTestCase, @AfterTestCase.

- Test listener is collection of annotation and classes
- Annotation are pre-defined class with certain functionalities and overridden methods
- Annotations acts as a meta data to specific method that control the behavior of the method
- Annotations are pre-fixed with @ symbol

Activity 5.1 : Setup And TearDown

This section has the following tasks :

- Add test case TC_CURA_Login_001 to test suite level
- Add test case TC_CURA_MakeAppointment_002 to test suite level
- Under Test suite level, goto script mode
- Add InvokeBrowser script under @setUp
- Add CloseBrowser script under @tearDown
- Run and observe the result

Activity 5.1 : Creating Test Listeners For Make Appointment:

This section has the following tasks

- Create testlistener in Testlistener folder : CURA_Makeappointment_TListener
- In TestListener class, under @BeforeTest --> perform InvokeBrowser actions and under @AfterTest --> add CloseBrowser code
- Run the Test at test case level, test suite and test suite collection level

Note: All the other testcases you can run under test listener at test suite and test suite collection level.

Integration of Jenkins with katalon:

- 1) Jenkins should be downloaded--> extract to specified folder (C:)
- 2) Jenkins installation and setup
- 3) Download and activate katalon runtime engine (KRE)
 - > used for scheduling test
 - > integrating with CI/CD
 - >Execute your tests with distributed server
- 4) katalon studio integration with jenkins
 - 4.1) create a sample test case --> add in test suit --> add in test suite collection
- 5) Execute command line generated for test suite/ test suite collection from katalon studio in Jenkins
- 6) At test suite level, click on BuildCMD icon to generate command , copy the command and close dialog box
- 7) In command line, goto the location of our KRE
- 8) paste the generated command at KRE location
- 9) Run the test

Milestone 6:

Cross-Browser Testing Using TestCloud

This task is used when your organization does not have enough resources to perform manually, katalon test_cloud automates test scripts across the most popular browsers in different environments.

This section has the following tasks:

- Take TC_CURA_MakeApointment_002
- Integrate katalon studio with testcloud
projects-->settings--> katalon test cloud
(or)
Simply click on Tool bar icon
- select testcase at Testsuite level
- Run -->testcloud

Milestone 7:

Report Generation And Sending Report To Developers

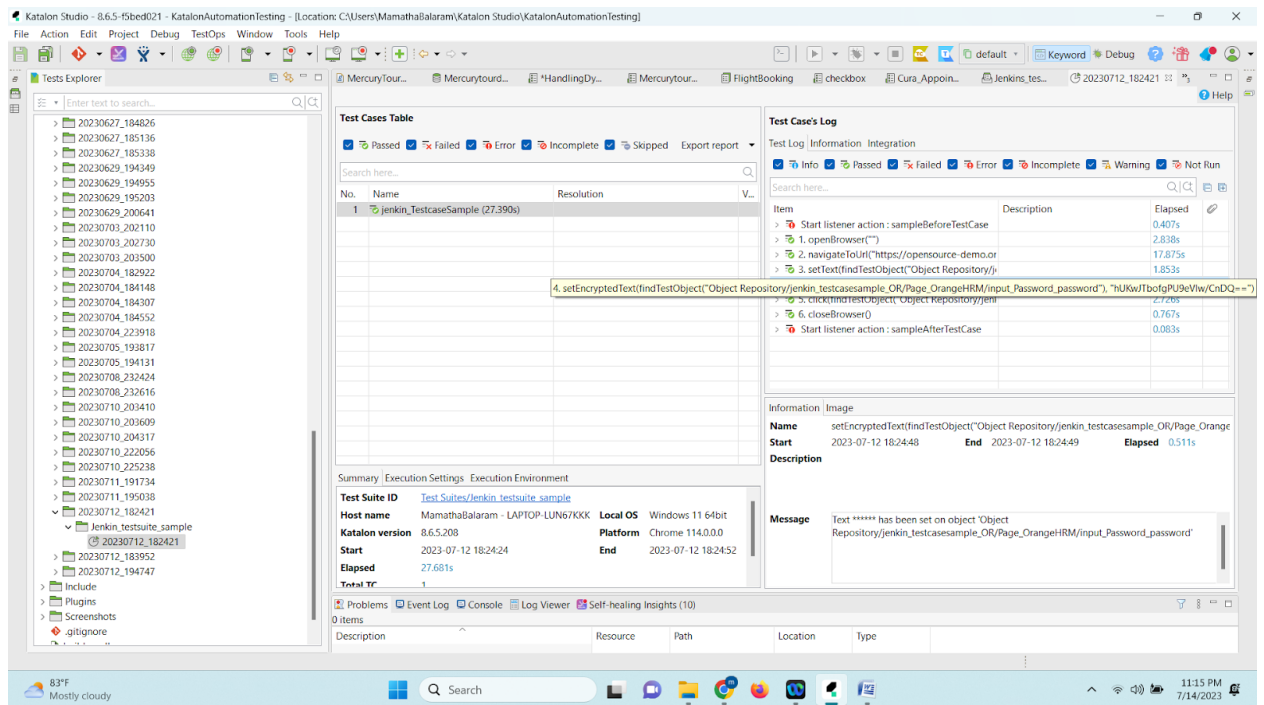
The final step of the katalon step process is to generate report and analyze the report for Quality of the product by discussing with different stakeholders in project under testing for next actions and eventually whether or not ready for the market release

Activity 7.1: Send Report Through Email

Goto project ???settings???email ???fill all required fields???apply and save ???close

Activity 7.1: Test Email Notification

Goto test suite??? Open execution information???mail recipients??? add emails???ok



Troubleshooting:

List common issues that may occur during project setup or test execution and provide possible solutions.

Conclusion:

Cura Healthcare service provides a prior appointment feature to overcome the starvation and other issues. Worldwide, Cura health care service helps to track and check the availability of doctors.