

Katalon Studio For Automated Testing

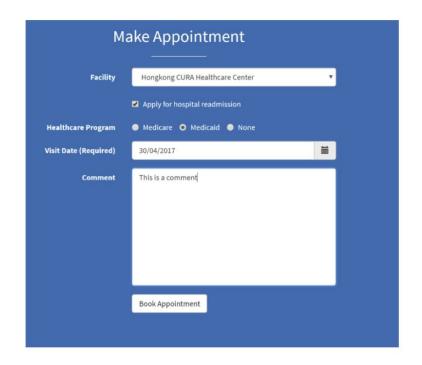
Sesi 3

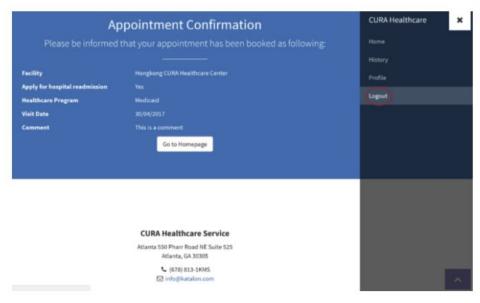
Exploration of Katalon Studio Main Features



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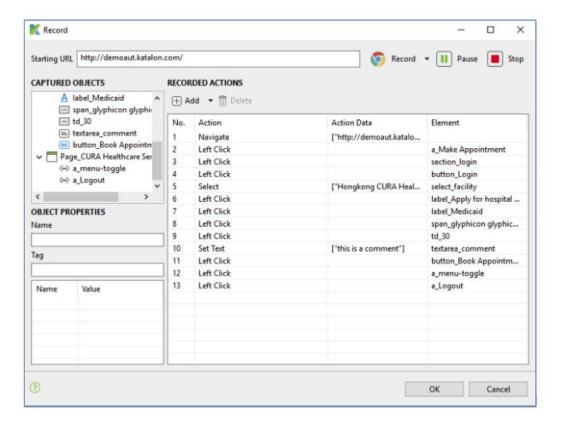
Preview Assignment 1







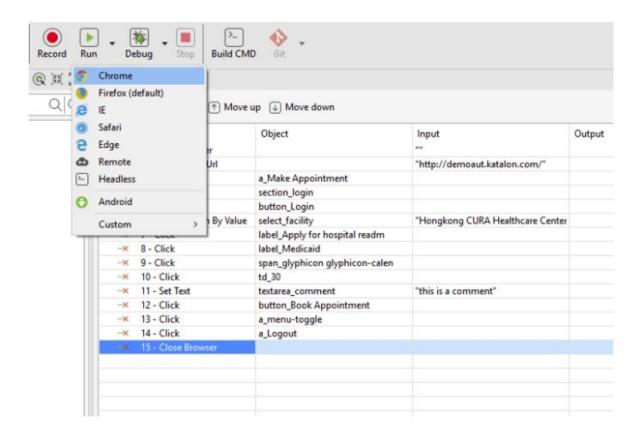
- On the Make Appointment page, fill in necessary appointment information and click on the Book Appointment button to book an appointment.
- The Appointment Confirmation page will show up. Click the Logout button to complete the recorded session.





Switch back to Katalon Studio Record dialog and you can see all the actions and web elements recorded.

Click on OK to finish the recording and generate necessary test steps and test scripts.





The recorded test scripts should run smoothly, but you will notice the test fails at Step 14 (Click on "a_Logout" element) with the error message "Unable to click on object 'Object Repository/Page CURA Healthcare Service (3)/a Logout'".

Don't worry, this can be fixed using the following steps.

tem		Ohinst	lenist	Outnut
-×	1 - Open Browser	Object	Input	Output
-×	2 - Navigate To Url		"http://demoaut.katalon.com/"	
-×	3 - Click	a_Make Appointment		
-×	4 - Click	section_login		
-×	5 - Click	button_Login		
-×	6 - Select Option By Value	select_facility	"Hongkong CURA Healthcare Center	
-×	7 - Click	label_Apply for hospital readm	7	
-×	8 - Click	label_Medicaid		
-×	9 - Click	span_glyphicon glyphicon-calen		
-×	10 - Click	td_30		
-×	11 - Set Text	textarea_comment	"this is a comment"	
\rightarrow	12 - Click	button_Book Appointment		
-×	13 - Click	a_menu-toggle		
-×	14 - Wait For Element Clickable	a_Logout	5	
-×	15 - Click	a_Logout		
-×	16 - Close Browser			



If you investigate to the failed message of the test execution, it includes the message "org.openqa.selenium.WebDriverException: unknown error: Element is not clickable at point".

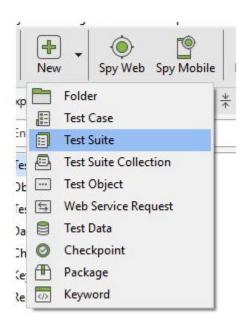
It happens because when the Side Menu of CURA website is open, the animation causes the Logout element to appear slowly and so Katalon Studio's playback is unable to recognize it.

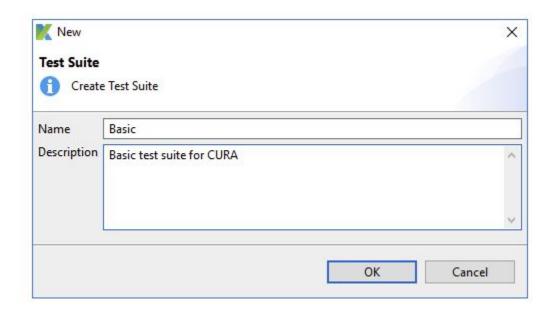
To fix this issue, we need to include a Wait step right before the logout step using the keyword waitForElementClickable, use "a_Logout" element as the object and change the timeout input to 5 seconds. Run the test case again, you will see the Log out button is found and the step passes.



Exploration Of Katalon Studio Main Features

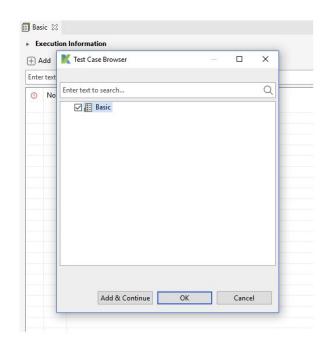
Generate Reports

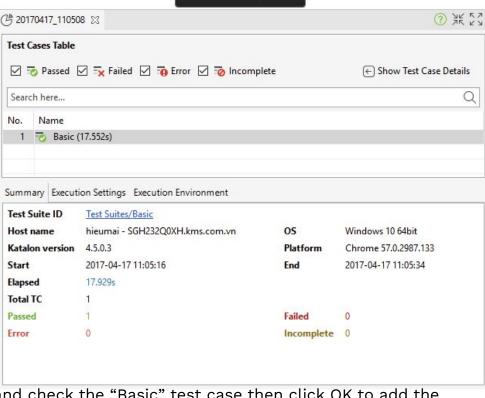




To generate test reports, we need to have a test suite. A test suite in Katalon Studio is where you group test cases to run them together.

- To create a test suite, click on the New toolbar button and select the New Test Suite item.
- In the New Test Suite dialog, enter the required name and an optional description about your test suite, click OK to create a new test suite.

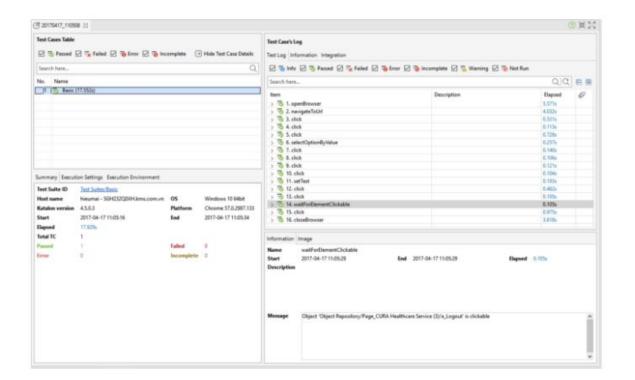




From the test suite UI, click the Add button and check the "Basic" test case then click OK to add the selected test case to the test suit.

Execute this test suite as we did with the test case by clicking on the Execution toolbar.

After the execution, you will notice that a new report folder is generated. In this folder, each of the child items represents an execution with the name indicating the starting time of the execution. Click on the first report item to view. The report is shown as above



The test report's detail is shown as below (with "Show Test Case Details" selected)



Exploration Of Katalon Studio Main Features

Conclusion

Perlu diperhatikan : Dengan melakukan pengujian seperti yang sudah dilakukan dengan katalon : record - stop - playback - generate report

Cukup mudah bukan?

Lalu bagaimana jika kita ingin melakukan manual test dengan katalon? Kita perlu tau mode script dan bagaimana cara melakukan pengujian dengan mode script pada GUI Katalon.



SCRIPT MODE

Script Mode - Sesi 3

Introductions

Also, user can record the test script or create test script in manual mode and then convert it into script mode by just clicking the Script tab. As stated in our previous tutorials, Katalon studio inherently supports Keyword-driven framework. It provides inbuilt keywords for WebUI, mobile app and web service automation.





Browser related keywords

waitForPageLoad()

Waits for page to load with the timeout value in seconds.

1 | WebUI.waitForPageLoad(5)

refresh()

Refreshes the browser.

1 WebUI.refresh()

back()

Goes back to previous URL in the browser history.

1 WebUI.back()

forward()

Goes to next URL in the browser history.

1 | WebUI.forward()



Web element related keywords

click()

Simulates mouse left-click on a web element located by the findTestObject method.

1 | WebUI.click(findTestObject('Page_home/btn_submit'))

doubleClick()

Simulates mouse double-click on a web element.

WebUI.doubleClick(findTestObject('Page_home/btn_submit'))

rightClick()

Right clicks on a web element.

1 | WebUI.rightClick(findTestObject('Page_home/btn_submit'))

check()

Checks a check-box or radio button.

WebUI.check(findTestObject('Page_home/chk_box1'))



Web element related keywords

```
uncheck()
Unchecks a check-box or radio button.
WebUI.uncheck(findTestObject('Page_home/chk_box1'))
setText()
Writes a text on a textbox or any input field (similar to sendKeys() in selenium)
 1 | WebUI.setText(findTestObject('Page_login/txt_username'), username)
selectOptionByValue()
Selects a dropdown option by its value.
WebUI.selectOptionByValue(findTestObject('Page_login/gender'), 'Male', fo
selectOptionByLabel()
Selects a dropdown option by its visible text.
WebUI.selectOptionByLabel(findTestObject('Page_login/gender'), 'M', false
selectOptionByIndex()
Selects a dropdown option by its index value.
WebUI.selectOptionByIndex(findTestObject('Page_login/gender'), 1)
```



Common wait related keywords

waitForElementClickable()

Waits for an element to be clickable with timeout value in seconds.

WebUI.waitForElementClickable(findTestObject('Page_home/btn_1'), 10)

waitForElementVisible()

Waits for an element to be visible with timeout value in seconds.

WebUI.waitForElementVisible(findTestObject('Page_home/btn_2'), 10)

waitForElementAttributeValue()

Waits till an element is not visible.

WebUI.waitForElementAttributeValue(findTestObject('Page_home/btn_3')



Commonly used validation related keywords

```
verifyElementPresent()
Returns a boolean value of true/false based on the presence of an element.
WebUI.verifyElementPresent(findTestObject('Page_home/btn_1'), 20)
verifyElementNotPresent()
Returns a boolean value of true/false based on the absence of an element.
WebUI.verifyElementNotPresent(findTestObject('Page_home/btn_1'), 20)
verifyElementText()
Return true if the element's text is same as expected text else false.
  1 | WebUI.verifyElementText(findTestObject('Page_home/btn_1'), 'Submit'
verifyEqual()
Return true if the actual value is same as expected value.
WebUI.verifyEqual(var1, 20)
verifyNotEqual()
Return false if the actual value is same as expected value.
WebUI.verifyNotEqual(var2, 20)
```



Other commonly used keywords

```
acceptAlert()
Simulates user action of accepting an alert or clicking 'Ok' on an alert dialog box.
WebUI.acceptAlert()
dismissAlert()
Simulates user action of dismissing an alert or clicking 'Cancel' on an alert dialog box.
  1 | WebUI.dismissAlert()
getAttribute()
Used to get a particular attribute of a web element e.g. name, type etc.
WebUI.getAttribute(findTestObject('Page_home/btn_1'), 'class')
getText()
Used to get the element's text.
  1 | WebUI.getText(findTestObject('Success_msg'))
dragAndDropToObject()
Used to get the element's text.
WebUI.dragAndDropToObject(findTestObject('Page1/sourceElement'), findTest
```



Other commonly used keywords

```
switchToFrame()
Switches to a particular iframe with timeout value of 10 seconds.
WebUI.switchToFrame(findTestObject('iframe_bqx'), 10)
switchToWindowTitle()
Switches to a particular window with the given title.
WebUI.switchToWindowTitle('ArtOftesting demo')
closeWindowTitle()
Return false if the actual value is same as expected value.
WebUI.closeWindowTitle('ArtOftesting demo')
switchToDefaultContent()
Switches to the parent window, called after performing some function on an iframe or a different
window/tab.
  1 | WebUI.switchToDefaultContent()
takeScreenshot()
Takes screenshot of the browser when called.
WebUI.takeScreenshot('D:\\screenshot.jpg')
```

Other commonly used keywords

```
executeJavaScript()

Used to execute javascript command.

1 | WebUI.executeJavaScript("{javascript code}", null)

uploadFile()

Used to perform file upload operation on a file type element.
```

WebUI.uploadFile(findTestObject('fileUpload'), 'D:\\screenshot.png')



Script Mode

Introductions

Setelah melihat contoh script yang ada/berlaku di Katalon, kali ini kita akan coba langsung dengan study case : GoogleCalculator dimana scenario nya :

- 1. Launch Google.
- 2. Enter 2+2 in Google's search bar.
- 3. Press enter.
- 4. Verify the result of 2+2 as 4.

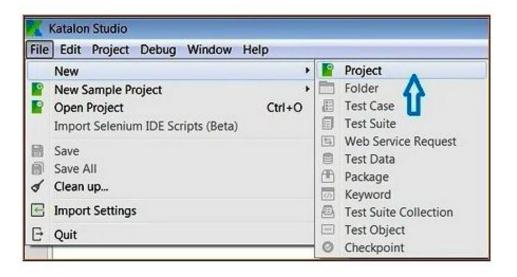


Script Mode

Case: GoogleCalculator

Let's first see, how to create a project in Katalon using record & playback feature.

1. On the Katalon Studio IDE, go to File menu and click on New->Project.



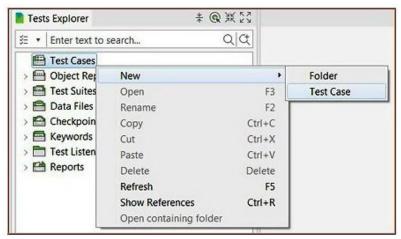


2. Name your Project, specify the project location, provide description(optional) and click OK.

K New Pro	ject		×
New Proj	ect er project information		
Name	ArtOfTestingDemo		
Location	E:\2.0\artofTestingKatalonTemp		Browse
	Katalon ArtOfTesting demo project		^
Description			
			+
		ОК	Cancel



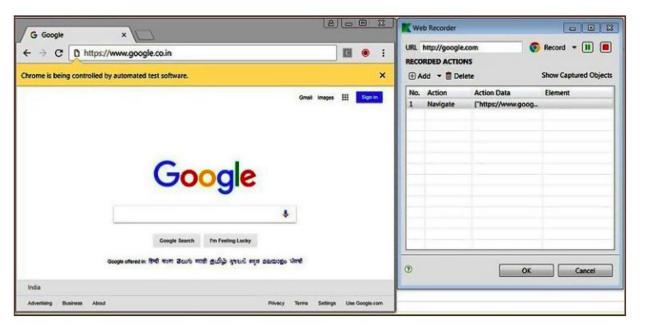
3. Next, we need to create a test case. For this right-click on 'Test Cases', click on **New** button on the toolbar and select **Test Case**.



Name your test case - 'GoogleCalc', provide a description and click OK.



4. Now, we can record the script. For this, we need to click on **Record Web** button present in the toolbar. A new screen will appear, provide the URL e.g. "http://google.com" in the "Starting URL" field and select a browser. As soon as we select a browser, the corresponding browser will open with the URL. Any operation we perform on the browser will get recorded in Web Recorder.





- This concludes setting up a project for test case creation using Record and playback.
 Now that we know, how to create a project on Katalon and start recording the scripts, let's focus on the Google Calculator test case creation.
- On the newly launched browser with google.com URL, click on the google search bar and enter 2+2. Keep an
 eye on the web recorder also, an action "Set Text" will get recorded with "Action Data" as ["2+2"].

	Google	
	2+2	
	2+2=5	
	2+2	
	2+2/2	
	2+2(2+2x0)+2x0	
Gc	2+2=5 proof	ਾਬੀ
	2+2 dialogue	
	2+2=4-1=3	
	2+2 movie	
	2+2 +2+2÷2=	
	2+2=4-1=3 quick maths	
	Google Search I'm Feeling Lucky	

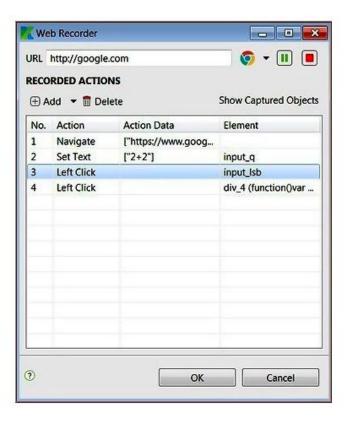


We will get redirected to the result page having the result of 2+2 as '4'. Just click on the search bar having the result (Although clicking on the search bar is not required but we need to this to capture the element so that later on we can add assertion/validation action on that element.

oogle	2+2								₽ Q
	All	News	Maps	Images	Videos	More		Set	tings Tools
	About 25,27,00,00,000 results (0.51 seconds)								
									2+2=
									4
	R	ad	HIN	χį	()	%	AC
	In	v	sin	In	7		8	9	+
	П	1	cos	log	4		5	6	×
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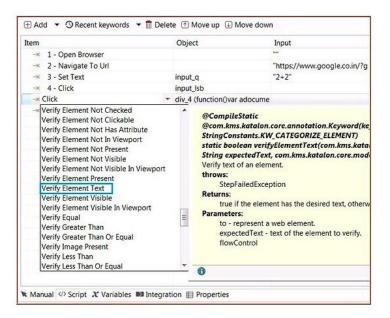


If everything is correct than your web recorder will look like this.



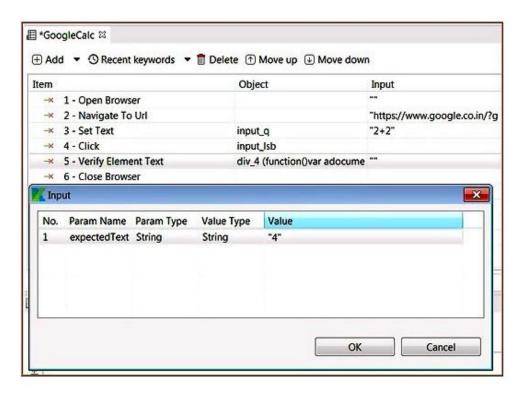


- Close the browser and click 'OK' on the web recorder. Now, you can see all the test steps recorded in the test case pane with its name 'GoogleCalc'. Click on the 'Run' button to run the test script.
- If everything passes, we just need to add an Assertion or validation point which checks that the result of 2+2 is getting correctly calculated as '4'. For this, we will update the action in which we just clicked on the google search bar having the result of the addition. Instead of 'Click' action make it "Validate element text" by selecting the value from the action dropdown.





Now, double click Input cell corresponding to "Verify element text" action and enter '4' in the 'Value' cell.





Convert into Script Mode

Google calculator test in script mode

```
WebUI.openBrowser('')
WebUI.navigateToUrl('https://www.google.co.in/')
WebUI.setText(findTestObject('Page Google/input q'), '2+2')
WebUI.click(findTestObject('Page Google/input lsb'))
WebUI.verifyElementText(findTestObject('Page 22 - Google Search (1)/div 4
(function()var adocument'), '4')
WebUI.closeBrowser()
```



This completes the test script creation part. Now, we can execute our test script by clicking 'Run' button.

You can see the test steps getting executed in the selected browser and the result of the test as passed. Also, you can change the expected value to '5' instead of the correct value '4' and run the test to see it getting failed.



Variabel

Variabel

Introductions

Untuk Memperdalam pemahaman terkait script mode pada Katalon, pada penutup kali ini kita sekalian akan mengenal dengan Variabel.

Ada 2 jenis Variabel pada Katalon Studio yang akan selalu kita gunakan antara lain :

- A. Test Case Variabel
- B. Global Variabel



Script Mode

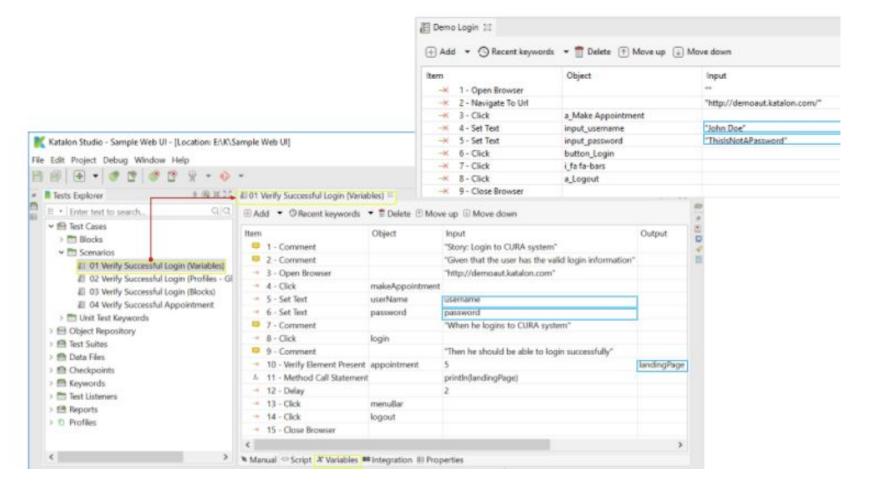
A. Test Case Variabel

Mengijinkan kita untuk pass data yang dinamis ke dalam test case.

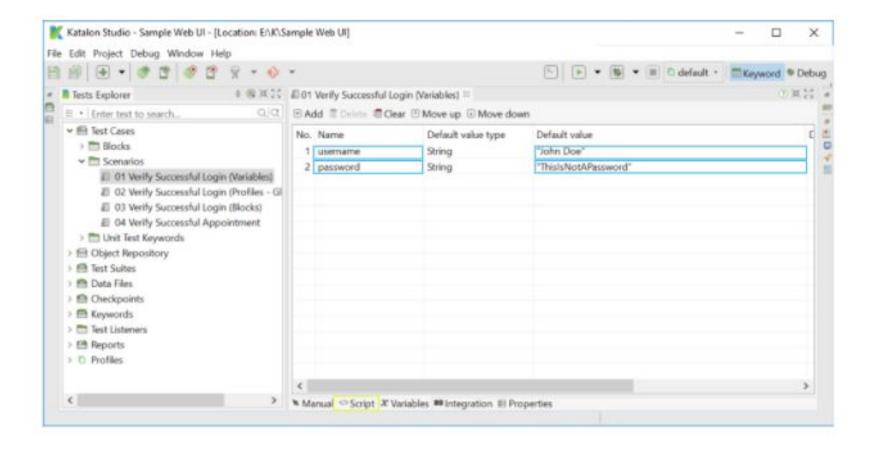
Kita bisa membuat variabel didalam test case dan memanggil test case dengan variabel baik itu di manual ataupun script.

Pada Part mana yang dikatakan Test Case Variabel? Kita buka lagi contoh testing login pada CURA Test



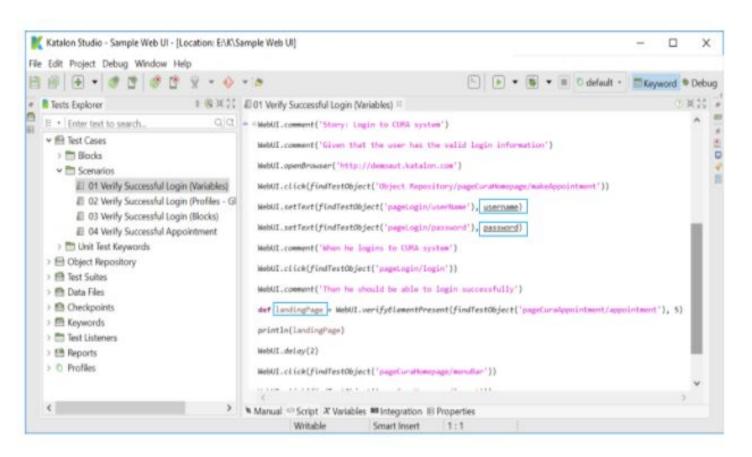








Lalu bagaimana dan bentuknya variabel pada mode script?





Script Mode

B. Global Variabel

A global variable is a variable defined in the execution profile and can be used in a test case, test object, web service object, and email configuration in a project.

