

# Object Reference (OBR) Method

# Pre-requisites

For understanding the OBR method in eZAutomate, user must be clear with the following concepts:

1. Execution modes in eZAutomate.
2. Understanding of different Web Application controls and their attributes.
3. Basic knowledge on how to create and execute Business Components, Business Process Workflow and Test Cases.



# What is OBR?

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**OBR** or **Object Reference** is a manual method of capturing objects from an AUT with the help of properties of objects. User must manually direct the flow towards object reference based capturing mode.

The advantage of using OBR is that it can be used in RPA performing mode also, no need of switching to Mixed mode.

OBR can be defined in two ways:

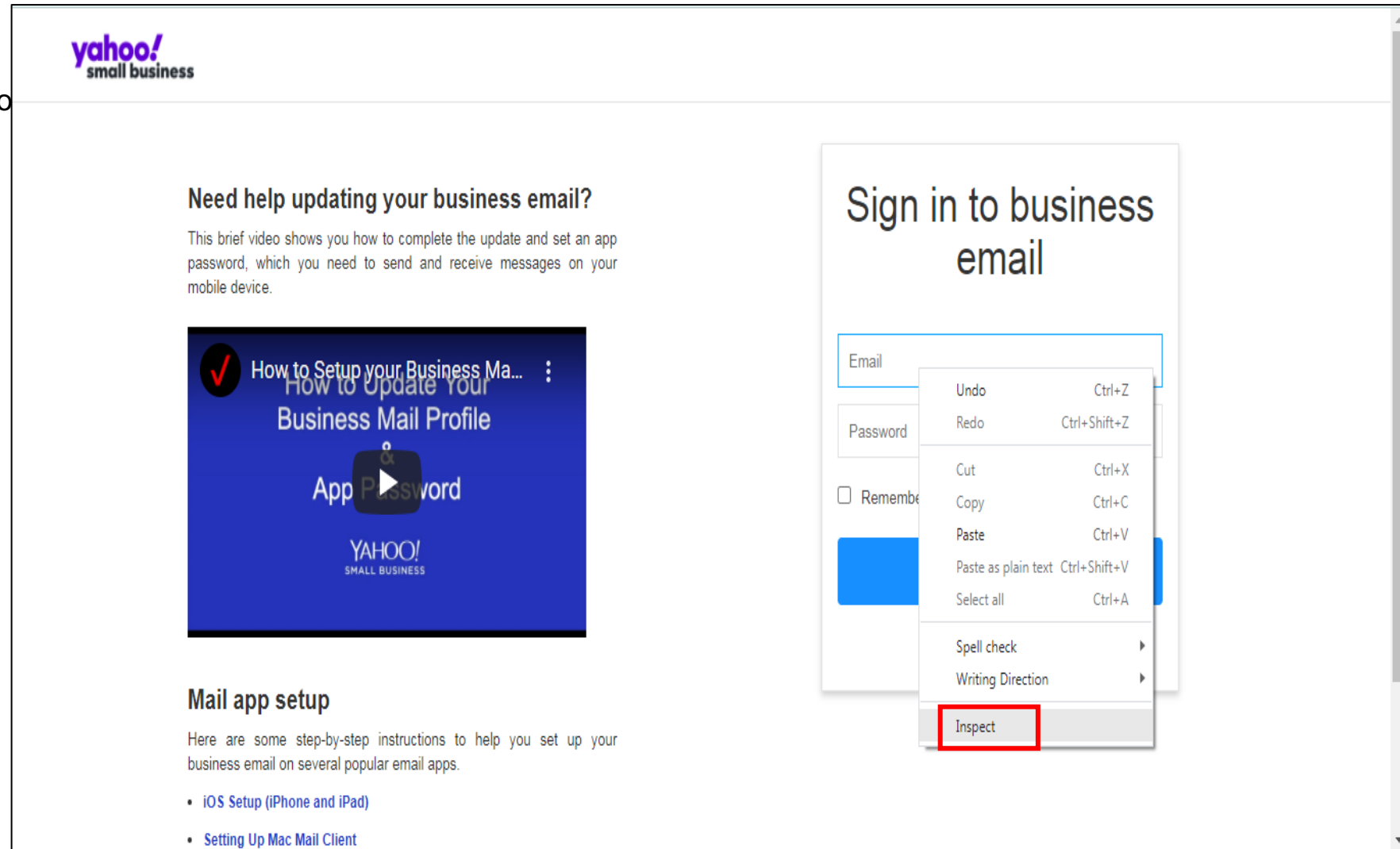
1. [@OBR](#): It helps to capture objects of an AUT based on **selected** unique properties of that object.
2. [@New](#): It helps to capture objects of an AUT based on **any** given unique property of that object.

Both options are used by different ways which are described further.

# How to use @OBR?

# BC creation with @OBR

- Right click on the object that you want to capture and select **Inspect**. This will show the DOM of the webpage.



# BC creation with @OBR (contd.)

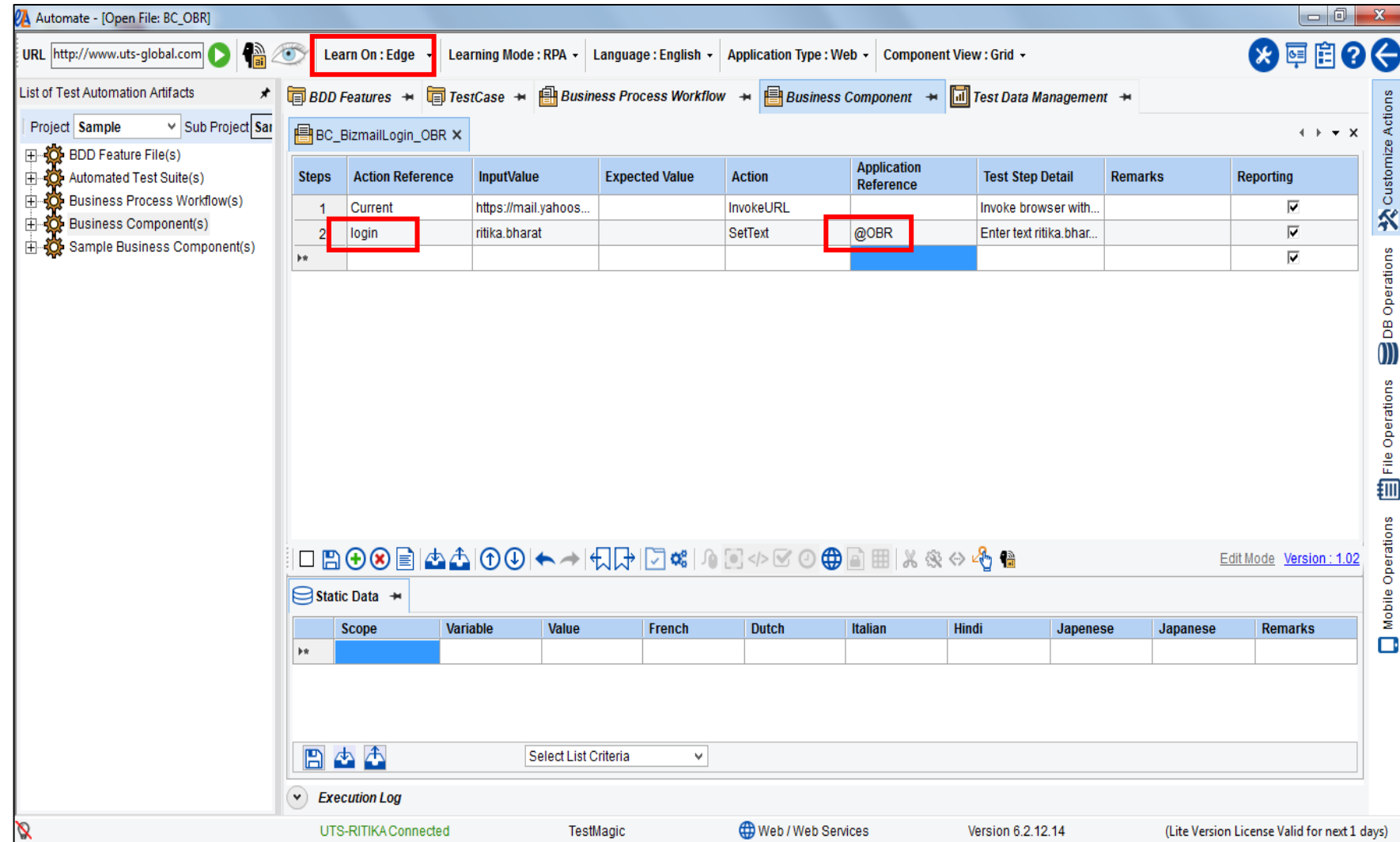
- Point to the desired object and click on it. The properties of that object will get highlighted on the right side of the page.
- For example, **Email** is the desired object. Consider the unique property “id”, copy its value “login”.

The screenshot displays the Yahoo! Small Business login page. A Chrome DevTools overlay is visible, showing the 'input#login.form-control' element selected. The overlay includes a list of elements (Email, Password, Remember me, Sign in, Forgot your password?) and a detailed view of the selected element's properties and HTML code. The HTML code for the selected element is highlighted in red, showing the 'id' attribute set to 'login'.

```
<input type="email" name="login" class="form-control" tabindex="0" required="true" properties autocomplete="off" autocorrect="off" autocapitalize="off" spellcheck="false" id="login" placeholder="Email" value="" == $0 </input>
```

# BC creation with @OBR (contd.)

- Enter the value of a unique property of the object in the **Action Reference** column.
- Type **@OBR** in the **Application Reference** column.
- Here, the unique property “id” of the Email object is used, and its value “login” is entered.
- Click on **Learn On** and select **Perform On**.
- Select the desired browser and click on **Run now**.



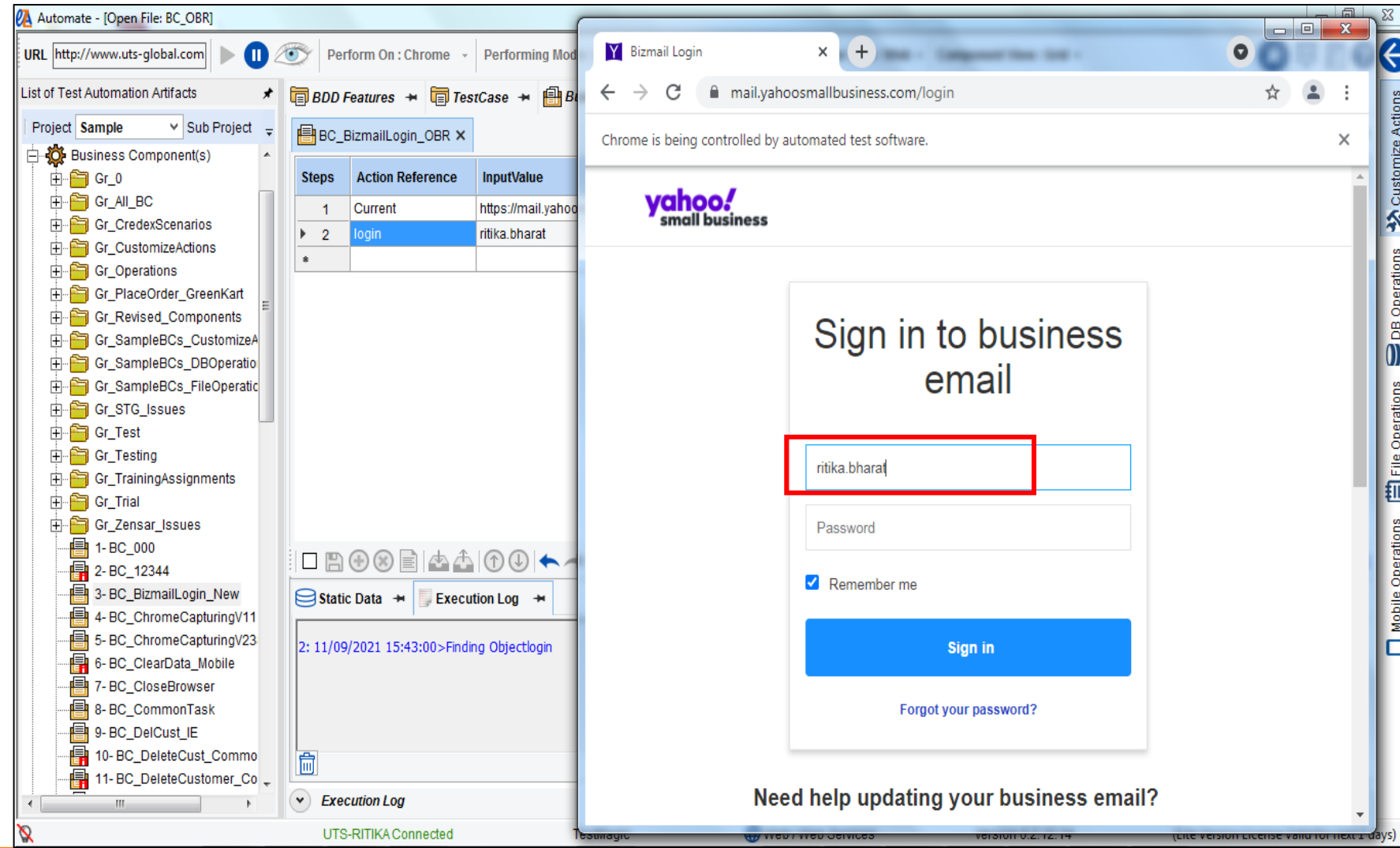
The screenshot shows the Automate - [Open File: BC\_OBR] interface. The top bar includes the URL <http://www.uts-global.com>, a 'Learn On : Edge' dropdown, and various settings like 'Learning Mode : RPA', 'Language : English', 'Application Type : Web', and 'Component View : Grid'. The left sidebar shows a 'List of Test Automation Artifacts' with a tree structure including BDD Feature File(s), Automated Test Suite(s), Business Process Workflow(s), Business Component(s), and Sample Business Component(s). The main area displays a table for 'BC\_BizmailLogin\_OBR' with columns: Steps, Action Reference, InputValue, Expected Value, Action, Application Reference, Test Step Detail, Remarks, and Reporting. The table has two rows: Row 1 (Steps: 1, Action Reference: Current, InputValue: https://mail.yahoos..., Action: InvokeURL, Application Reference: , Test Step Detail: Invoke browser with..., Remarks: , Reporting: ✓) and Row 2 (Steps: 2, Action Reference: login, InputValue: ritika.bharat, Action: SetText, Application Reference: @OBR, Test Step Detail: Enter text ritika.bhar..., Remarks: , Reporting: ✓). The 'Application Reference' column for Row 2 is highlighted with a red box. Below the table is a 'Static Data' section with a table for 'Static Data' with columns: Scope, Variable, Value, French, Dutch, Italian, Hindi, Japanese, Japanese, and Remarks. The bottom status bar shows 'UTS-RITIKA Connected', 'TestMagic', 'Web / Web Services', 'Version 6.2.12.14', and '(Lite Version License Valid for next 1 days)'.

Steps	Action Reference	InputValue	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Current	https://mail.yahoos...		InvokeURL		Invoke browser with...		✓
2	login	ritika.bharat		SetText	@OBR	Enter text ritika.bhar...		✓

Scope	Variable	Value	French	Dutch	Italian	Hindi	Japanese	Japanese	Remarks

# BC creation with @OBR (contd.)

- The execution has started. **Email** field is populated with the specified value.
- **Execution Log** is displayed at the bottom section of the main pane.



The screenshot displays the Automate software interface during a test execution. The main pane shows a web browser window with the URL 'mail.yahoosmallbusiness.com/login'. The page title is 'Bizmail Login'. The browser window shows the 'Sign in to business email' form. The email field is populated with 'ritika.bharat' and is highlighted with a red box. The password field is empty. The 'Remember me' checkbox is checked. The 'Sign in' button is visible. Below the form, there is a link for 'Forgot your password?'. The left pane shows a project tree with various components. The bottom pane shows the 'Execution Log' with a timestamp and the action 'Finding Objectlogin'.

Steps	Action Reference	InputValue
1	Current	https://mail.yahoo
2	login	ritika.bharat

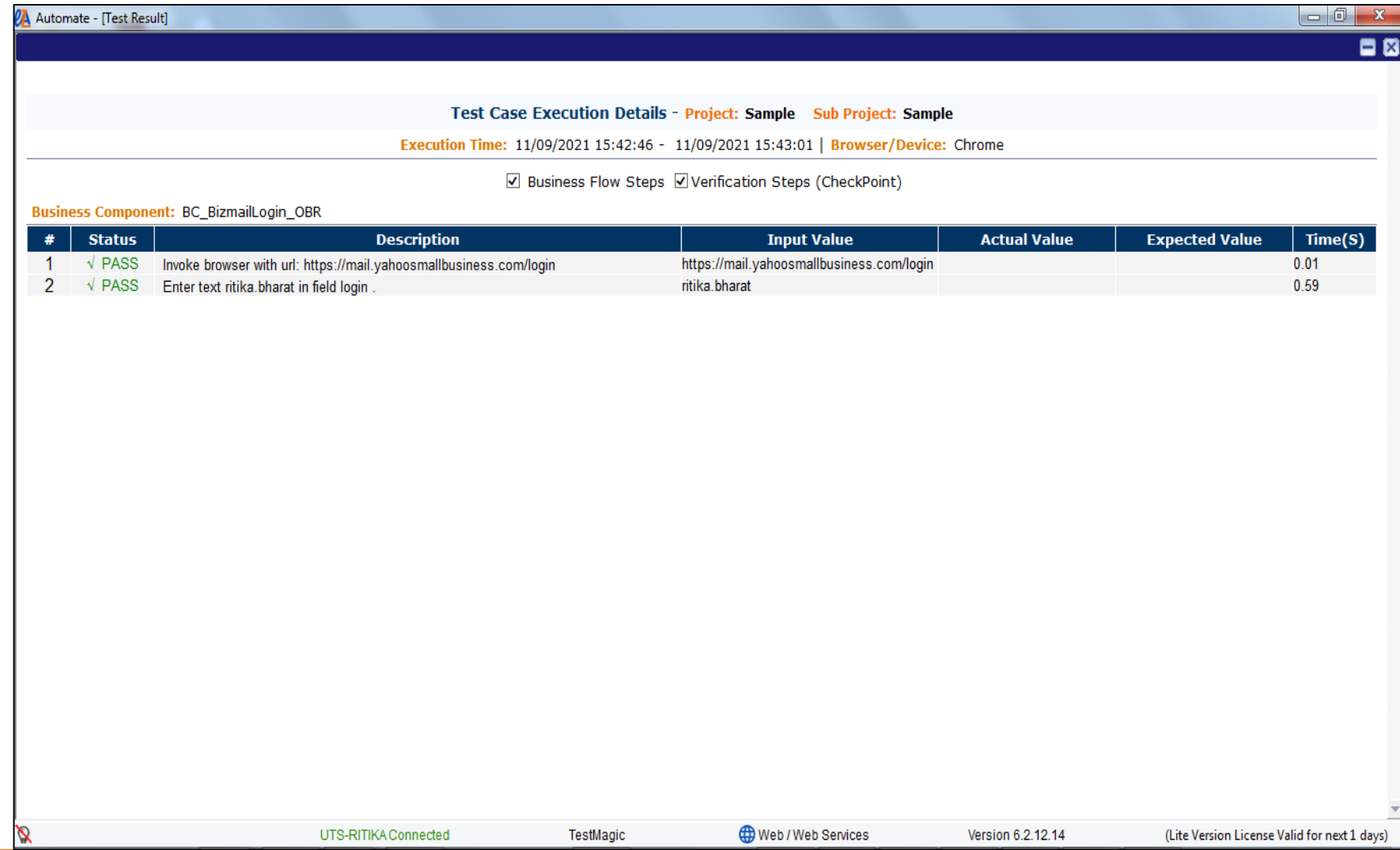
Execution Log

2: 11/09/2021 15:43:00>Finding Objectlogin



# BC creation with @OBR (contd.)

- Execution report page is displayed at the end of every BC execution.



The screenshot shows a web application window titled "Automate - [Test Result]". The main content area displays "Test Case Execution Details" for a project named "Sample" and sub-project "Sample". The execution time is "11/09/2021 15:42:46 - 11/09/2021 15:43:01" and the browser/device is "Chrome". Below this, there are checkboxes for "Business Flow Steps" and "Verification Steps (CheckPoint)". The business component is "BC\_BizmailLogin\_OBR". A table follows with 7 columns: #, Status, Description, Input Value, Actual Value, Expected Value, and Time(S). The table contains two rows of test results, both marked as "PASS".

Test Case Execution Details - Project: Sample Sub Project: Sample						
Execution Time: 11/09/2021 15:42:46 - 11/09/2021 15:43:01   Browser/Device: Chrome						
<input checked="" type="checkbox"/> Business Flow Steps <input checked="" type="checkbox"/> Verification Steps (CheckPoint)						
Business Component: BC_BizmailLogin_OBR						
#	Status	Description	Input Value	Actual Value	Expected Value	Time(S)
1	✓ PASS	Invoke browser with url: https://mail.yahoosmallbusiness.com/login	https://mail.yahoosmallbusiness.com/login			0.01
2	✓ PASS	Enter text ritika.bharat in field login .	ritika.bharat			0.59

The footer of the window shows "UTS-RITIKA Connected", "TestMagic", "Web / Web Services", "Version 6.2.12.14", and "(Lite Version License Valid for next 1 days)".

# How to use @New?

# BC creation with @New (contd.)

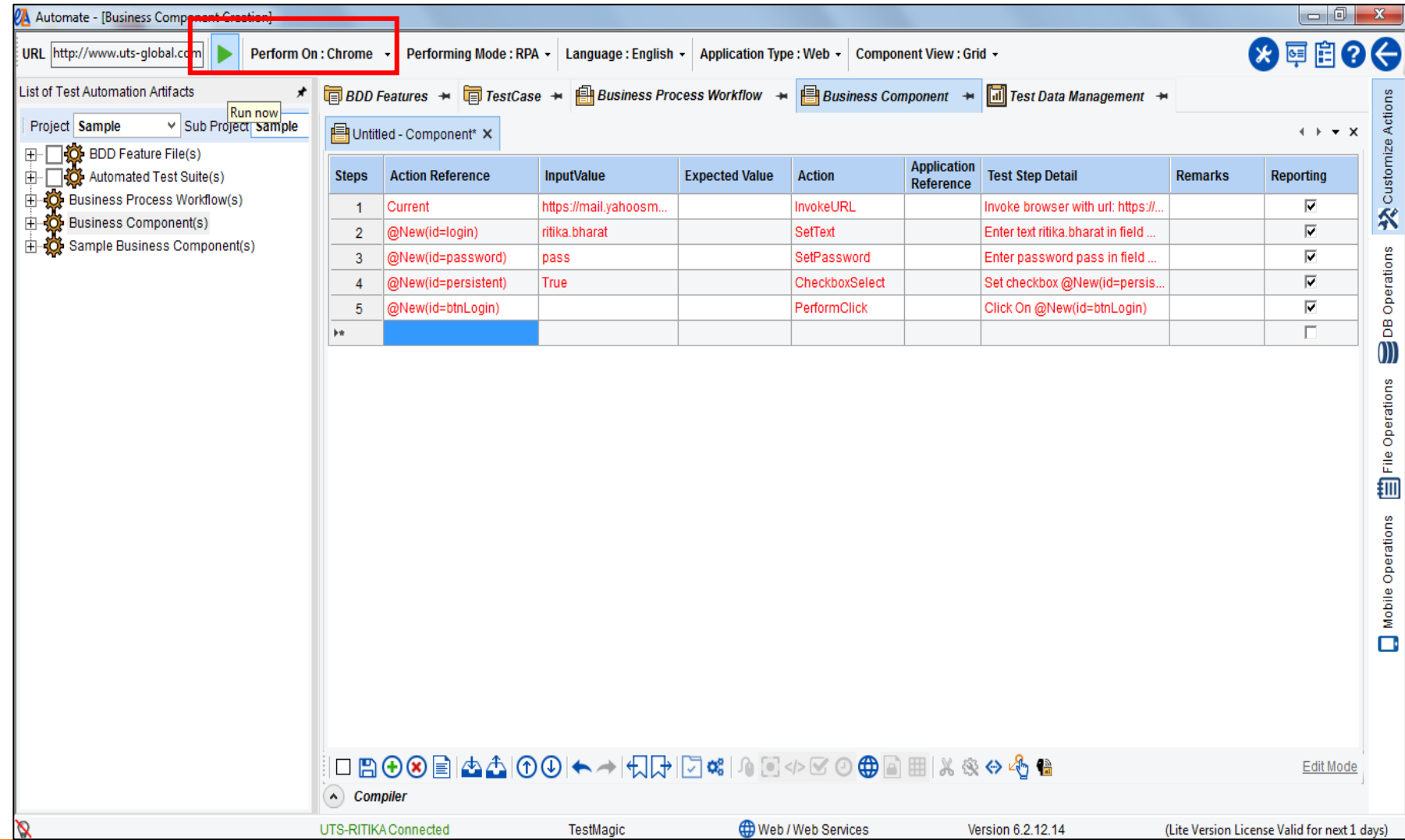
- The syntax for using @New is @New(property=value of the property).
- Enter object's any unique property in the **Action Reference** column.
- User will get this details from the DOM of the webpage.

Steps	Action Reference	Input Value	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Current	https://mail.yahoosm...		InvokeURL		Invoke browser with url: https://...		<input checked="" type="checkbox"/>
2	@New(id=login)	ritika.bharat		SetText		Enter text ritika.bharat in field ...		<input checked="" type="checkbox"/>
3	@New(id=password)	pass		SetPassword		Enter password pass in field ...		<input checked="" type="checkbox"/>
4	@New(id=persistent)	True		CheckboxSelect		Set checkbox @New(id=persis...		<input checked="" type="checkbox"/>
5	@New(id=btnLogin)			PerformClick		Click On @New(id=btnLogin)		<input checked="" type="checkbox"/>
6								<input type="checkbox"/>



# BC creation with @New (contd.)

- Select the desired browser and click on **Run now**.



The screenshot shows the 'Automate - [Business Component Creation]' window. The 'Perform On' dropdown is highlighted with a red box. The 'Run now' button is also visible. The main area shows a table of test steps for a login process.

Steps	Action Reference	InputValue	Expected Value	Action	Application Reference	Test Step Detail	Remarks	Reporting
1	Current	https://mail.yahoosm...		InvokeURL		Invoke browser with url: https://...		✓
2	@New(id=login)	ritika.bharat		SetText		Enter text ritika.bharat in field ...		✓
3	@New(id=password)	pass		SetPassword		Enter password pass in field ...		✓
4	@New(id=persistent)	True		CheckboxSelect		Set checkbox @New(id=persis...		✓
5	@New(id=btnLogin)			PerformClick		Click On @New(id=btnLogin)		✓
▶▶								□

# BC creation with @New (contd.)

- The execution has started. **Email** field is populated with the specified value
- Execution Log is displayed in the bottom section of the eZAutomate main pane.

The screenshot displays the eZAutomate Business Component Creation interface. The top pane shows the URL `http://www.uts-global.com` and the test case `Untitled - Component*`. The test case steps are as follows:

Steps	Action Reference	Input Value
1	Current	<code>https://mail</code>
2	<code>@New(id=login)</code>	<code>ritika.bhara</code>
3	<code>@New(id=password)</code>	<code>pass</code>
4	<code>@New(id=persistent)</code>	<code>True</code>
5	<code>@New(id=btnLogin)</code>	

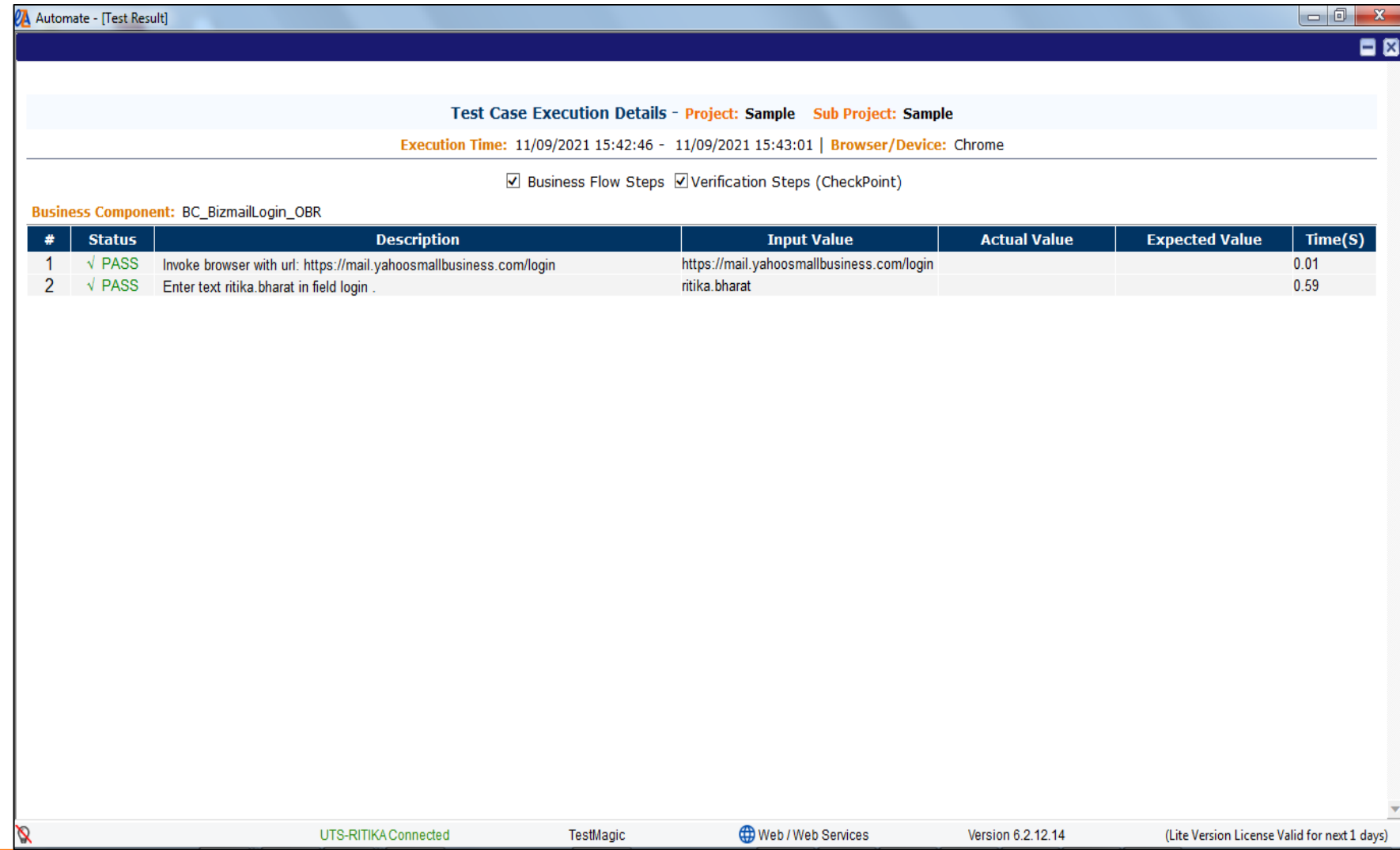
The bottom pane shows the Execution Log with the following entries:

```
5: 11/09/2021 14:40:09>Object @New(id=btnLog
5: 11/09/2021 14:40:09>Performing action perform
1: 11/09/2021 14:41:01>Finding ObjectCurrent
1: 11/09/2021 14:41:02>Performing action invoke
2: 11/09/2021 14:41:02>Finding Object@New(id=
2: 11/09/2021 14:41:02>Object @New(id=login) f
2: 11/09/2021 14:41:02>Performing action settex
3: 11/09/2021 14:41:03>Finding Object@New(id=
```

The right pane shows a browser window with the URL `mail.yahoosmallbusiness.com/login`. The page displays the Yahoo! Small Business login form. The email field is populated with `ritika.bhara` and is highlighted with a red box. The password field is empty. The "Remember me" checkbox is checked. The "Sign in" button is visible.

# BC creation with @New (contd.)

- Execution report page is displayed at the end of the execution.



The screenshot displays the 'Automate - [Test Result]' window. At the top, it shows 'Test Case Execution Details' for 'Project: Sample' and 'Sub Project: Sample'. Below this, the 'Execution Time' is '11/09/2021 15:42:46 - 11/09/2021 15:43:01' and the 'Browser/Device' is 'Chrome'. There are checkboxes for 'Business Flow Steps' and 'Verification Steps (CheckPoint)'. The 'Business Component' is 'BC\_BizmailLogin\_OBR'. A table follows with columns: '#', 'Status', 'Description', 'Input Value', 'Actual Value', 'Expected Value', and 'Time(S)'. It contains two rows of test results, both marked as 'PASS'. The first row describes invoking a browser with a specific URL, and the second row describes entering text into a login field. The status bar at the bottom shows 'UTS-RITIKA Connected', 'TestMagic', 'Web / Web Services', 'Version 6.2.12.14', and a license notice.

#	Status	Description	Input Value	Actual Value	Expected Value	Time(S)
1	✓ PASS	Invoke browser with url: https://mail.yahoosmallbusiness.com/login	https://mail.yahoosmallbusiness.com/login			0.01
2	✓ PASS	Enter text ritika.bharat in field login .	ritika.bharat			0.59

# Thank you for your time and patience



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