

ROBOT FRAMEWORK

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1.Introduction to Robot Framework



Robot Framework (Selenium +Python)

Web Automation

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Robot Framework

- **Robot Framework** is a generic test automation framework for **acceptance testing**.
- **Acceptance test-driven development (ATDD)**.
- It utilizes the **keyword-driven testing approach**.
- Provides test libraries implemented either with **Python or Java**, and users **can create new higher-level keywords** from existing ones using the same syntax that is used for creating test cases.
- Not much programming is required.

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```
from selenium import webdriver
```

```
driver=webdriver.Chrome(executable_path="C:\\Drivers\\chromedriver_win32\\chromedriver.exe")  
driver.get("http://newtours.demoaut.com/")  
driver.find_element_by_name("userName").send_keys("mercury")  
driver.find_element_by_name("password").send_keys("mercury")  
driver.find_element_by_name("login").click()  
driver.close()
```



```
*** Settings ***
```

```
Library SeleniumLibrary
```

```
*** Test Cases ***
```

```
Login Test
```

```
Open Browser http://newtours.demoaut.com Chrome
```

```
Input Text name:userName mercury
```

```
Input Text name:password mercury
```

```
Click Element name:Login
```

```
Close Browser
```



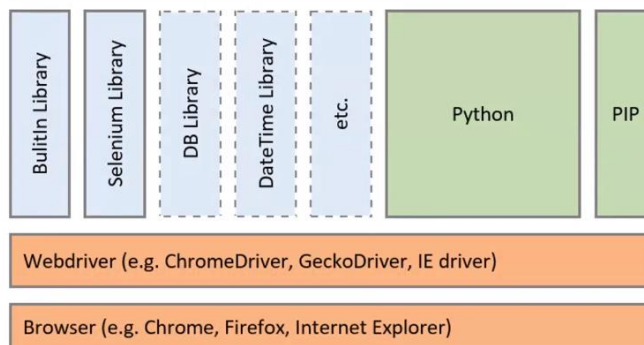
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Robot Framework IDE

RIDE / Pycharm with IntelliJ plugin

Robot Framework



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Setup

- Install Python
- Install Pycharm IDE
- Install Selenium
- Install robot framework
- Install Robotframework Selenium Library

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Install roboframework

Administrator: Command Prompt

```
C:\WINDOWS\system32>pip install robotframework
Collecting robotframework
  Using cached https://files.pythonhosted.org/packages/22/0f/1b9ffa0c4e59789b50e6034866e823b7d4a5c7a/robotframework-3.1.2-py3-none-any.whl
Installing collected packages: robotframework
Successfully installed robotframework-3.1.2

C:\WINDOWS\system32>pip show robotframework
Name: robotframework
Version: 3.1.2
Summary: Generic automation framework for acceptance testing and robotic process automation (RPA)
Home-page: http://robotframework.org
Author: Pekka Klärck
Author-email: peke@eliga.fi
License: Apache License 2.0
Location: c:\program files (x86)\python3.6.4\lib\site-packages
Requires:
Required-by: robotframework-seleniumlibrary
```

```
pip install robotframework
pip install --upgrade robotframework
pip install robotframework==2.9.2

pip uninstall robotframework

pip list
pip show robotframework
pip check robotframework
```

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Install Robotframework Selenium Library

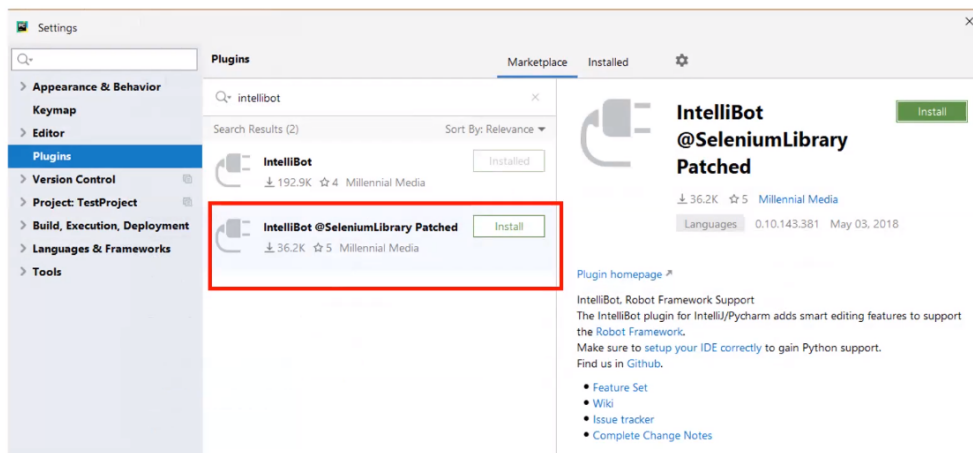
Administrator: Command Prompt

```
C:\WINDOWS\system32>pip install robotframework-seleniumlibrary
Collecting robotframework-seleniumlibrary
  Using cached https://files.pythonhosted.org/packages/ff/15/6961c801eeec7f062973509958b33f158/robotframework-seleniumlibrary-3.3.1-py3-none-any.whl
Requirement already satisfied: robotframework>=2.8.7 in c:\program files (x86)\python3.6.4\lib\site-packages (robotframework-seleniumlibrary)
Requirement already satisfied: selenium>=3.4.0 in c:\program files (x86)\python3.6.4\lib\site-packages (robotframework-seleniumlibrary)
Requirement already satisfied: urllib3 in c:\program files (x86)\python3.6.4\lib\site-packages (robotframework-seleniumlibrary)
Installing collected packages: robotframework-seleniumlibrary
Successfully installed robotframework-seleniumlibrary-3.3.1
```

```
pip install robotframework-seleniumlibrary
pip uninstall robotframework-seleniumlibrary
```

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IntelliBotSeleniumLibrary plugin (Robotframework IDE for Pycharm)



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2.First Test Case in Robot Framework

Testing on a website :

<https://demo.automationtesting.in/Register.html>

Robot Framework ppt1 - PowerPoint

Agenda

- Project Folder Structure
- File Extensions
- Multiple sections in Robot file
- Writing Test case
- Report

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1.Without variables and user defined keywords

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

*** Test Cases ***

LoginTest

open browser

https://demo.automationtesting.in/Register.html

chrome

click link *xpath://a[@href="Index.html"]*

sleep *2s*

input text *id:email lochu5vilehya@gmail.com*

sleep *2s*

```
click element    id:enterimg
sleep           2s

close browser
```

*** Keywords ***

2. Without user defined keywords

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url}

https://demo.automationtesting.in/Register.html

*** Test Cases ***

LoginTest

```
open browser    ${url}    ${browser}
click link      xpath://a[@href="Index.html"]
sleep          2s
input text      id:email    lochu5vilehya@gmail.com
sleep          2s
click element    id:enterimg
sleep          2s
close browser
```

*** Keywords ***

1. With variables and user defined keywords

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url}

https://demo.automationtesting.in/Register.html

```
*** Test Cases ***
```

```
LoginTest
```

```
    open browser    ${url}    ${browser}  
    LoginToApp  
    close browser
```

```
*** Keywords ***
```

```
LoginToApp
```

```
    click link    xpath://a[@href="Index.html"]  
    sleep    2s  
    input text    id:email    lochu5vilehya@gmail.com  
    sleep    2s  
    click element    id:enterimg  
    sleep    2s
```

OUTPUT:

```
(.venv) PS C:\Users\vlab\Desktop\Robot_framework> robot  
TestCases\TC1.robot
```

```
=====
```

```
TC1
```

```
=====
```

```
LoginTest
```

```
DevTools listening on
```

```
ws://127.0.0.1:50333/devtools/browser/5764665d-053f-4743-  
91c5-568b14d266b4
```

```
LoginTest
```

```
| PASS |
```

```
-----  
---
```

TC1

| PASS |

1 test, 1 passed, 0 failed

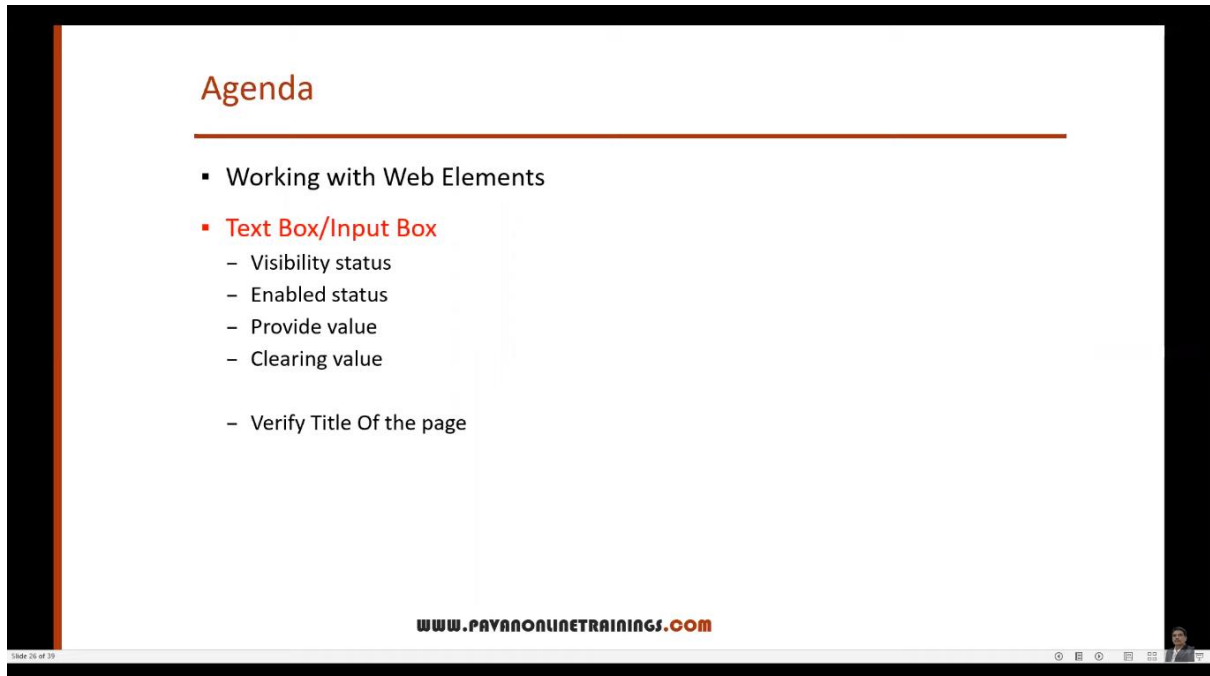
=====

Output: C:\Users\vlab\Desktop\Robot_framework\[output.xml](#)

Log: C:\Users\vlab\Desktop\Robot_framework\[log.html](#)

Report: C:\Users\vlab\Desktop\Robot_framework\[report.html](#)

3.How To Handle Input Box in Robot Framework



The screenshot shows a presentation slide with a black border. The title 'Agenda' is in orange at the top left. Below it is a horizontal orange line. A bulleted list follows: 'Working with Web Elements' (black), 'Text Box/Input Box' (red), and 'Verify Title Of the page' (black). The 'Text Box/Input Box' item has four sub-bullets: 'Visibility status', 'Enabled status', 'Provide value', and 'Clearing value'. At the bottom center is the URL 'WWW.PAYANONLINETRAININGS.COM' in black. The bottom right corner shows a small video feed of a person and some navigation icons.

Agenda

- Working with Web Elements
- Text Box/Input Box
 - Visibility status
 - Enabled status
 - Provide value
 - Clearing value
- Verify Title Of the page

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*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url}

https://demo.automationtesting.in/Register.html

*** Test Cases ***

LoginTest

open browser *\${url}* *\${browser}*

maximize browser window

title should be *Register*

LoginToApp

close browser

*** Keywords ***

LoginToApp

```
click link      xpath://a[@href="Index.html"]
sleep          2s
title should be      Index

${"email_txt"}  set variable      id:email

element should be visible      ${"email_txt"}
element should be enabled      ${"email_txt"}

input text      ${"email_txt"}
lochu5vilehya@gmail.com
sleep          2

clear element text      ${"email_txt"}
sleep          3
```

OUTPUT:

```
(.venv) PS
C:\Users\vlab\Desktop\Robot_framework> robot
TestCases\InputBo

x.robot

=====
=====

=====

InputBox

=====
=====

=====

LoginTest

DevTools listening on
ws://127.0.0.1:59559/devtools/browser/0a61075d-
1001
```

-4fb4-be01-f4c21171c1f0

LoginTest

| **PASS** |

InputBox

| **PASS** |

1 test, 1 passed, 0 failed

=====
=====

=====

Output:

C:\Users\vlab\Desktop\Robot_framework\output.xml
1

Log:

C:\Users\vlab\Desktop\Robot_framework\log.html

Report:

C:\Users\vlab\Desktop\Robot_framework\report.html

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url}

https://demo.automationtesting.in/Register.html

*** Test Cases ***

LoginTest

open browser *\${url}* *\${browser}*

maximize browser window

title should be *Register*

LoginToApp

close browser

*** Keywords ***

LoginToApp

click link *xpath: //a[@href="Index.html"]*

sleep *2s*

title should be *Index*

\${"email_txt"} set variable *id:email*

element should not be visible *\${"email_txt"}*

element should be enabled *\${"email_txt"}*

input text *\${"email_txt"}*

lochu5vilehya@gmail.com

sleep *2*

clear element text *\${"email_txt"}*

sleep *3*

=====

=====

=====

InputBox

```
=====
=====

=====
```

LoginTest

DevTools listening on
ws://127.0.0.1:59832/devtools/browser/d7a9c5f9-
86fb
-4dca-af12-ea300d883c47

LoginTest

| FAIL |

The element 'id:email' should not be visible,
but it is.

```
-----
-----

-----
```

InputBox

| FAIL |

1 test, 0 passed, 1 failed

```
=====
=====

=====
```

Output:

C:\Users\vlab\Desktop\Robot_framework\output.xml
1

Log:

C:\Users\vlab\Desktop\Robot_framework\log.html

Report:

C:\Users\vlab\Desktop\Robot_framework\report.html

4.How To Select Radio Buttons & Check Boxes in Robot Framework

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url}

https://demo.automationtesting.in/Register.html

*** Test Cases ***

Testing Radio Btns and Check Boxes

open browser *\${url}* *\${browser}*

maximize browser window

set selenium speed *0.5*

title should be *Register*

select radio button *radiooptions* *FeMale*

select checkbox *id:checkbox3*

select checkbox *id:checkbox1*

unselect checkbox *id:checkbox3*

close browser

*** Keywords ***

(.venv) PS

C:\Users\vlab\Desktop\Robot_framework> robot

TestCases\Radiobt

n_Checkbox.robot

=====
=====
=====

Radiobtn Checkbox

```
=====
=====
=====
Testing Radio Btns and Check Boxes
DevTools listening on
ws://127.0.0.1:61621/devtools/browser/5d93a66d-
5fce
-41de-86ff-b0ec7871a1b7
```

```
Testing Radio Btns and Check Boxes
| PASS |
```

```
-----
-----
-----
```

```
Radiobtn Checkbox
| PASS |
1 test, 1 passed, 0 failed
```

```
=====
=====
=====
```

```
Output:
C:\Users\vlab\Desktop\Robot_framework\output.xml
Log:
C:\Users\vlab\Desktop\Robot_framework\log.html
Report:
C:\Users\vlab\Desktop\Robot_framework\report.html
```

5.How To Select Options from Drop-Down & List Boxes

- **DROPDOWN**

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Register.html

*** Test Cases ***
Testing DropDown
    open browser    ${url}    ${browser}
    maximize browser window
    title should be Register
    LoginToApp
    close browser

*** Keywords ***
LoginToApp
    select from list by label Skills Adobe
InDesign
    sleep 2
    select from list by index Skills 15
    sleep 3
    select from list by value Skills HTML
    sleep 3
```

```
(.venv) PS
C:\Users\vlab\Desktop\Robot_framework>
robot
TestCases\DropDow
n.robot
```

```
=====
=====
=====
```

DropDown

```
=====
=====
=====
```

Testing DropDown

DevTools listening on

ws://127.0.0.1:63284/devtools/browser/
af3c69fa-dab5

-4e43-abc3-1ea724bd79ae

Testing DropDown

| **PASS** |

```
-----
-----
-----
```

DropDown

| **PASS** |

```
=====
=====
=====
```

Output:

C:\Users\vlab\Desktop\Robot_framework\
output.xml

Log:

C:\Users\vlab\Desktop\Robot_framework\
log.html

Report:

C:\Users\vlab\Desktop\Robot_framework\
report.html

• LIST BOX

*** Settings ***

Library *SeleniumLibrary*

*** Variables ***

\${browser} *chrome*

\${url} *https://techcanvass.com/Examples/multi-select.html*

*** Test Cases ***

Testing ListBox

```
open browser      ${url}      ${browser}
maximize browser window
set selenium speed    0.5
LoginToApp
close browser
```

*** Keywords ***

LoginToApp

```
select from list by label    multiselect    Audi
select from list by index    multiselect    1
select from list by value    multiselect
```

honda

```
sleep    3
unselect from list by label    multiselect
```

Audi

```
unselect from list by index    multiselect    4
click element    xpath://input[@type='submit']
sleep    2
```



```
(.venv) PS
C:\Users\vlab\Desktop\Robot_framework>
robot TestCases\Multiselect_ListBox.robot

=====
=====

=====

Multiselect ListBox

=====
=====

=====

Testing ListBox

DevTools listening on
ws://127.0.0.1:63952/devtools/browser/64
6840bc-1fa6
-427e-b0f6-f423b9374e11

Testing ListBox
| PASS |

-----
-----

-----

Multiselect ListBox
| PASS |
```

1 test, 1 passed, 0 failed

=====
=====

=====

Output:

C:\Users\vlab\Desktop\Robot_framework\ou
tput.xml

Log:

C:\Users\vlab\Desktop\Robot_framework\lo
g.html

Report:

C:\Users\vlab\Desktop\Robot_framework\re
port.html

6. Waits & TimeOuts in Robot Framework

- Selenium Speed

```
*** Settings ***
Library    SeleniumLibrary

*** Variables ***
${browser}    chrome
${url}
https://demo.automationtesting.in/Register.html

*** Test Cases ***
Testing Speed
    ${speed} =    get selenium speed
    log to console    ${speed}

    open browser    ${url}    ${browser}
    maximize browser window
    title should be    Register
    set selenium speed    0.5
    LoginProcess
    close browser

*** Keywords ***
LoginProcess
    input text    xpath://input[@placeholder='First Name']    Lochani
    input text    xpath://input[@placeholder='Last Name']    Vilehya
    input text    xpath://input[@type='email']    lochu5vilehya@gmail.com
    input text    xpath://input[@type='tel']    8341130962

    select radio button    radiooptions    FeMale
    select checkbox    id:checkbox3
```

```

select checkbox      id:checkbox1
unselect checkbox    id:checkbox3
select from list by label    Skills  Adobe
InDesign
select from list by index    Skills  15
select from list by value    Skills  HTML

${speed} =  get selenium speed
log to console    ${speed}

```

```

(.venv) PS
C:\Users\vlab\Desktop\Robot_framework>
robot TestCases\SpeedTest.robot

```

```

=====
=====

=====

```

SpeedTest

```

=====
=====

=====

```

Testing Speed

.0 seconds

.

DevTools listening on
ws://127.0.0.1:49412/devtools/browser/de
e966ae-11fa

-4a7b-9064-ee61108c468d

....500 milliseconds

Testing Speed

| **PASS** |

SpeedTest

| **PASS** |

1 test, 1 passed, 0 failed

=====
=====

=====

Output:

C:\Users\vlab\Desktop\Robot_framework\ou
tput.xml

Log:

C:\Users\vlab\Desktop\Robot_framework\lo
g.html

Report:

C:\Users\vlab\Desktop\Robot_framework\re
port.html

• Selenium Timeout

- ```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Register.html

*** Test Cases ***
Testing Speed
 open browser ${url} ${browser}
 maximize browser window

 ${time} = get selenium timeout
 log to console ${time}

 set selenium timeout 2 seconds
 wait until page contains Registration

 LoginProcess
 close browser

*** Keywords ***
LoginProcess
 input text xpath://input[@placeholder='First Name'] Lochani
 input text xpath://input[@placeholder='Last Name'] Vilehya
 input text xpath://input[@type='email'] lochu5vilehya@gmail.com
 input text xpath://input[@type='tel'] 8341130962

 select radio button radiooptions FeMale
 select checkbox id:checkbox3
 select checkbox id:checkbox1
```

```
unselect checkbox id:checkbox3
select from list by label Skills Adobe
InDesign
select from list by index Skills 15
select from list by value Skills HTML
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\TimeOut.robot

=====
=====

TimeOut

=====
=====

Testing Speed

DevTools listening on
ws://127.0.0.1:50618/devtools/browser/8a
ddfbf9-4955-4746-b031-7130316ebe57

...5 seconds

Testing Speed
| FAIL |

Text 'Registration' did not appear in 2
seconds.

TimeOut
| FAIL |

1 test, 0 passed, 1 failed
```

```
=====
=====

Output:
C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:
C:\Users\vlab\PycharmProjects\Robot\log.html

Report:
C:\Users\vlab\PycharmProjects\Robot\report.html
```

- **Selenium Implicit wait**

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Register.html

*** Test Cases ***
Testing Speed
 open browser ${url} ${browser}
 maximize browser window

 ${time} = get selenium implicit wait
 log to console ${time}

 set selenium implicit wait 2 seconds

 ${time} = get selenium implicit wait
```



```
log to console ${time}
LoginProcess
close browser
```

```
*** Keywords ***
```

```
LoginProcess
```

```
 input text xpath://input[@placeholder='First
Name1'] Lochani
 input text xpath://input[@placeholder='Last
Name'] Vilehya
 input text xpath://input[@type='email']
lochu5vilehya@gmail.com
 input text xpath://input[@type='tel']
8341130962
```

```
 select radio button radiooptions FeMale
 select checkbox id:checkbox3
 select checkbox id:checkbox1
 unselect checkbox id:checkbox3
 select from list by label Skills Adobe
InDesign
 select from list by index Skills 15
 select from list by value Skills HTML
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\ImplicitWait.robot
```

```
=====
=====
==
```

```
ImplicitWait
```

```
=====
=====
==
```

Testing Speed

DevTools listening on  
ws://127.0.0.1:50670/devtools/browser/  
b91817f0-b6b3-4531-affa-093634f9cc7a

**...0 seconds**

**...2 seconds**

Testing Speed

| FAIL |

**Element with locator**

**'xpath://input[@placeholder='First  
Name1']' not found.**

-----  
-----  
--

ImplicitWait

| FAIL |

1 test, 0 passed, 1 failed

=====  
=====  
==

Output:

C:\Users\vlab\PycharmProjects\Robot\ou  
tput.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\lo  
g.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 7.How to Close Single & Multiple Browsers in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Register.html
${url1}
https://techcanvass.com/Examples/multi-select.html

*** Test Cases ***
Testing Speed
 open browser ${url} ${browser}
 maximize browser window

 open browser ${url1} ${browser}
 maximize browser window

 close all browsers
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\CloseAll.robot
```

```
=====
=====
```

CloseAll

```
=====
=====

Testing Speed
```

```
DevTools listening on
ws://127.0.0.1:50716/devtools/browser/d95
dc4c6-3c97-43c9-ab6f-3619712ef73c
```

```
..
```

```
DevTools listening on
ws://127.0.0.1:50745/devtools/browser/d7a
44242-22f6-44a5-a056-10694d1ec355
```

```
Testing Speed
```

```
| PASS |
```

```


CloseAll
```

```
| PASS |
```

```
1 test, 1 passed, 0 failed
```

```
=====
=====

Output:
```

```
C:\Users\vlab\PycharmProjects\Robot\output.xml
```

```
Log:
```

```
C:\Users\vlab\PycharmProjects\Robot\log.html
```

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 8.How to Handle Alerts & Frames Robot Framework

### Alerts:

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Alerts.html

*** Test Cases ***
Handling Alerts
 open browser ${url} ${browser}
 maximize browser window
 set selenium speed 1
 click element
 xpath: //a[@href='#CancelTab']
 click element xpath: //button[@class='btn btn-primary']
 #handle alert accept
 #handle alert dismiss
 handle alert leave
 alert should be present Press a Button !
*** Keywords ***
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Alerts.robot
```

```
=====
=====

Alerts

=====
=====
```

```
[WARN] Error sending stats to
Plausible: error sending request for url
(https://plausible.io/api/event):
operation timed out
```

Handling Alerts

```
DevTools listening on
ws://127.0.0.1:51817/devtools/browser/1fa
a95ae-e9f6-4045-b84e-f974492cd2e0
```

```


Alerts
```

```
| PASS |
```

```
1 test, 1 passed, 0 failed
```

```
=====
=====

Output:
```

```
C:\Users\vlab\PycharmProjects\Robot\outpu
t.xml
```

Log:

```
C:\Users\vlab\PycharmProjects\Robot\log.h
tml
```



Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## Frames:

\*\*\* Settings \*\*\*

Library *SeleniumLibrary*

\*\*\* Variables \*\*\*

\${browser} *chrome*

\${url}

*https://www.w3schools.com/js/tryit.asp?filename=tryjs\_array*

\*\*\* Test Cases \*\*\*

Switch to Frame Test

Open Browser *\${url}* *Chrome*

maximize browser window

set selenium speed *0.5*

select frame *iframeResult*

current frame should contain *JavaScript Arrays*

current frame should not contain *hello*

unselect frame

frame should contain *iframeResult*

*JavaScript Arrays*

Close Browser

\*\*\* Keywords \*\*\*

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Frames.robot
```

```
=====
=====
```

Frames

```
=====
=====
```

Switch to Frame Test

```
DevTools listening on
ws://127.0.0.1:57166/devtools/browser/96f
018d6-b658-4caa-831b-2dffb1b9dac88
```

```
[25108:9908:0401/114100.543:ERROR:ssl_cli
ent_socket_impl.cc(970)] handshake
failed; returned -1, SSL error code 1,
net_error -101
```

```
[25108:9908:0401/114100.611:ERROR:ssl_cli
ent_socket_impl.cc(970)] handshake
failed; returned -1, SSL error code 1,
net_error -101
```

Switch to Frame Test

| PASS |

```


```

Frames

| PASS |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 9.How to Handle Tabbed Windows & Browser Windows

### TABBED WINDOWS:

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Windows.html

*** Test Cases ***
Tabbed Windows
 open browser ${url} ${browser}
 maximize browser window
 set selenium speed 0.5
 click element xpath://*[@id="Tabbed"]/a/button
 Switch Window title=Selenium
 click element xpath://a[@href='/downloads']
 sleep 2
 close all browsers

*** Keywords ***
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\TabbedWindows.robot
```

```
=====
=====
```

TabbedWindows

=====  
=====

Tabbed Windows

DevTools listening on  
ws://127.0.0.1:58272/devtools/browser/9d7  
7c94c-2453-44d1-9d74-58eea8d2ddb2

Tabbed Windows

| PASS |

-----  
-----

TabbedWindows

| PASS |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## SWITCH BETWEEN BROWSER WINDOWS:

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Windows.html
${url1} https://www.selenium.dev/

*** Test Cases ***
Tabbed Windows
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window

 open browser ${url1} ${browser}
 maximize browser window

 switch browser 1
 ${log1} get title
 log to console ${log1}

 switch browser 2
 ${log2} get title
 log to console ${log2}

 close all browsers
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot
TestCases\SwitchToMultiplebrowsers.robot
```

```
=====
SwitchToMultiplebrowsers
=====
```

```
Tabbed Windows
```

```
.
```

```
DevTools listening on
ws://127.0.0.1:58508/devtools/browser/9bd
098be-4d08-4b64-aa7f-ce08ee5719ff
```

```
..
```

```
DevTools listening on
ws://127.0.0.1:58538/devtools/browser/6d5
da720-677b-47ed-8262-42dead6882a7
```

```
....Frames & windows
```

```
Tabbed Windows
```

```
..Selenium
```

```
Tabbed Windows
```

```
| PASS |
```

```

SwitchToMultiplebrowsers
```

```
| PASS |
```

```
1 test, 1 passed, 0 failed
```

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html



## 10. Browser related Keywords

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.automationtesting.in/Windows.html
${url1} https://www.selenium.dev/

*** Test Cases ***
Navigation through windows
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 ${loc} get location
 log to console ${loc}

 go to ${url1}
 ${loc} get location
 log to console ${loc}

 go back
 ${loc} get location
 log to console ${loc}

 close browser

*** Keywords ***
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
```

robot

TestCases\NavigationalKeywords.robot

=====  
=====

NavigationalKeywords

=====  
=====

Navigation through windows

.

DevTools listening on

ws://127.0.0.1:61919/devtools/browser/1f1331b0-ff63-4690-9248-21a65431ffac

**...https://demo.automationtesting.in/Windows.html**

**...https://www.selenium.dev/**

Navigation through windows

**..https://demo.automationtesting.in/Windows.html**

Navigation through windows

| **PASS** |

-----  
-----

NavigationalKeywords

| **PASS** |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 11. How to Capture Element & Full Page Screenshot

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://opensource-
demo.orangehrmlive.com/web/index.php/auth/login

*** Test Cases ***
Capture Screenshot
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 input text username Admin
 input text password admin123
 #capture element screenshot
 /*[@id="app"]/div[1]/div/div[1]/div/div[1]/img
 C:/Users/vlab/PycharmProjects/Robot/logo.png
 #capture page screenshot
 C:/Users/vlab/PycharmProjects/Robot/OrangePage.
 png
 capture element screenshot
 /*[@id="app"]/div[1]/div/div[1]/div/div[1]/img
 logo1.png
 capture page screenshot login.png
 close browser
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\CaptureSS.robot
```

```
=====
=====
CaptureSS
```

```
=====
=====
Capture Screenshot
```

```
.
DevTools listening on
ws://127.0.0.1:62556/devtools/browser/a22
9c428-ba86-493b-bc48-d0ec98a3ae26
```

```
Capture Screenshot
```

```
| PASS |
```

```


CaptureSS
```

```
| PASS |
```

```
1 test, 1 passed, 0 failed
```

```
=====
=====
Output:
```

```
C:\Users\vlab\PycharmProjects\Robot\output.xml
```

```
Log:
```

```
C:\Users\vlab\PycharmProjects\Robot\log.html
```

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 12. How to perform Mouse Operations in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://swisnl.github.io/jQuery-
contextMenu/3.x/demo.html
${url1}
https://testautomationpractice.blogspot.com/
${url2}
http://www.dhtmlgoodies.com/scripts/drag-drop-
custom/demo-drag-drop-3.html#google_vignette
*** Test Cases ***
Mouse Actions
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 open context menu
 xpath:/html/body/div/section/div/div/div/p/span

 go to ${url1}
 double click element
 /*[@id="HTML10"]/div[1]/button

 go to ${url2}
 drag and drop id:box6 id:box106
 sleep 2

 close browser
```

(.venv) PS

C:\Users\vlab\PycharmProjects\Robot>  
robot TestCases\MouseActions.robot

```
=====
=====
MouseActions
```

```
=====
=====
Mouse Actions
```

```
.
```

```
DevTools listening on
ws://127.0.0.1:63248/devtools/browser/7bde3041-4ee1-40ec-972a-fa8e8b17b698
```

```
.....[10224:25360:0401/141404.984:ERROR:cert_verify_proc_builtin.cc(878)]
CertVerifyProcBuiltin for
www.dhtmlgoodies.com failed:
```

```
----- Certificate i=0
(CN=wordpresschess.com) -----
```

```
ERROR: Time is after notAfter
```

```
[8104:17136:0401/141404.987:ERROR:ssl_client_socket_impl.cc(970)] handshake
failed; returned -1, SSL error code 1,
net_error -200
```

```
Mouse Actions
```

```
| PASS |
```



-----  
-----  
MouseActions

| **PASS** |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 13. User Defined Keywords & Resource Files in Robot Framework

- Without Arguments

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.guru99.com/test/newtours/

*** Test Cases ***
TC1
 LoginBrowser
 input text userName
lochu5viehya@gmail.com
 input text password Lovely@3455
 close browser

*** Keywords ***
LoginBrowser
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
```

- With Arguments

```

*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.guru99.com/test/newtours/

*** Test Cases ***
TC1
 LoginBrowser ${url} ${browser}
 input text username
lochu5viehya@gmail.com
 input text password Lovely@3455
 close browser

*** Keywords ***
LoginBrowser
 [Arguments] ${appurl}
 ${appbrowser}
 set selenium speed 0.5
 open browser ${appurl}
 ${appbrowser}
 maximize browser window

```

- **With Arguments and return value**

```

*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://demo.guru99.com/test/newtours/

*** Test Cases ***
TC1
 ${pageTitle}= LoginBrowser ${url}
 ${browser}
 log to console ${pageTitle}
 log ${pageTitle}
 input text userName
 lochu5viehya@gmail.com
 input text password Lovely@3455
 close browser

*** Keywords ***
LoginBrowser
 [Arguments] ${appurl} ${appbrowser}
 set selenium speed 0.5
 open browser ${appurl} ${appbrowser}
 maximize browser window
 ${title}= get title
 [Return] ${title}

```

- **Resource files:**

- If there are the common keywords used for all test files then keep them in a separate file in separate directory and import in the settings tab of the code

**LOC:** ../Resources/resources.robot

```
*** Settings ***
Library SeleniumLibrary

*** Keywords ***
LoginBrowser
 [Arguments] ${appurl} ${appbrowser}
 set selenium speed 0.5
 open browser ${appurl} ${appbrowser}
 maximize browser window
 ${title}= get title
 [Return] ${title}
```

**LOC:** ../TestCases/UserDefinedKeywords.robot

```
*** Settings ***
Library SeleniumLibrary
Resource ../Resources/resources.robot
*** Variables ***
${browser} chrome
${url} https://demo.guru99.com/test/newtours/

*** Test Cases ***
TC1
 ${pageTitle}= LoginBrowser ${url}
 ${browser}

 log to console ${pageTitle}
 log ${pageTitle}
 input text userName
```

*lochu5viehya@gmail.com*

*input text password*

*close browser*

*Lovely@3455*

## 14. Scrolling Page using JavaScript executor in Robot Framework

- Scrolling page till it reach a pixel number

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://www.worldometers.info/geography/how-many-countries-are-there-in-the-world/

*** Test Cases ***
Mouse Actions
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 execute javascript window.scrollTo\(0,2500\)
 sleep 2
 close browser
```

### Scrolling page till we find the a element

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://en.wikipedia.org/wiki/List_of_countries_and_dependencies_by_area

*** Test Cases ***
```

## Mouse Actions

```
set selenium speed 0.5
open browser ${url} ${browser}
maximize browser window

scroll element into view
xpath://*[@id="mw-content-
text"]/div[1]/table[2]/tbody/tr[101]/td[2]/span
/span/span/img

sleep 2
close browser
```

## Scrolling page till the bottom of the page

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://en.wikipedia.org/wiki/List_of_countries
_and_dependencies_by_area

*** Test Cases ***
Mouse Actions
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 execute javascript
 window.scrollTo(0,document.body.scrollHeight)
 #end of the page
 sleep 2
 execute javascript window.scrollTo(0,-
 document.body.scrollHeight) #top of the page
 sleep 2
 close browser
```





## 15. How to work with FOR loop in Robot Framework

```
*** Test Cases ***
Forloop1
 FOR ${i} IN RANGE 1 10
 log to console ${i}
END
```

### OUTPUT:

```
Forloop1
1
2
3
4
5
6
7
8
9
```

```
*** Test Cases ***
Forloop2
 FOR ${i} IN 1 2 3 4 5 6 7 8
 log to console ${i}
END
```

### OUTPUT:

```
Forloop2
1 2 3 4 5 6 7 8
```

```
*** Test Cases ***
Forloop2
 FOR ${i} IN 1 2 3 4 5
6 7 8
 log to console ${i}
 END
```

### OUTPUT:

Forloop2

1  
2  
3  
4  
5  
6  
7  
8

```
Forloop3wihList
 @{{items}} create list 1 2 3 4
5
 FOR ${i} IN @{{items}}
 log to console ${i}
 END
```

### OUTPUT:

Forloop3wihList

1  
2  
3  
4  
5

```

Forloop3wihList
 @{items} create list john lochu
veena jyo
 FOR ${i} IN @{items}
 log to console ${i}
END

```

## OUTPUT:

```

Forloop3wihList
john
lochu
veena
jyo

```

```

Forloop3withExit
 @{items} create list 1 2 3 4
5
 FOR ${i} IN @{items}
 log to console ${i}
 exit for loop if ${i}== 3
END

```

## OUTPUT:

```

Forloop3withExit
1
2
3

```

## 16. How to Count & Extract Link Texts in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url}
https://demo.guru99.com/test/newtours/
*** Test Cases ***
Get Links
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 ${countLinks}= get element count
xpath://a
 log to console ${countLinks}

 @linkItems create list
 FOR ${i} IN RANGE 1
 ${countLinks}+1
 ${linkText}= get text
xpath:(//a)[${i}]
 log to console ${linkText}
 END

 close browser
```

```
=====
=====
GetAllLinks
=====
=====
```

Get Links

.  
DevTools listening on  
ws://127.0.0.1:50897/devtools/browser/893  
d7115-a7d4-4b32-a1e7-3d0ee7195d4d  
...61  
..  
Demo Site

Testing

Selenium

Live Project

Java  
Selenium

Insurance Project  
Agile Project  
Bank Project  
Security Project  
Telecom Project  
Payment Gateway Project  
New Tours  
SEO

Home  
Flights  
Hotels  
Car Rentals  
Cruises  
Destinations  
Vacations  
SIGN-ON  
REGISTER  
SUPPORT  
CONTACT  
your destination  
featured vacation destinations  
Register here  
Business Travel @ About.com  
Salon Travel

Get Links

| PASS |

-----  
-----

GetAllLinks

| PASS |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html



## 17. How to Handle Web/HTML Table in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://testautomationpractice.blogspot.com/
*** Test Cases ***
Table
 set selenium speed 0.5
 open browser ${url} ${browser}
 maximize browser window
 ${row}= get element count
 xpath://table[@name='BookTable']/tbody/tr
 log to console ${row}
 ${col}= get element count
 xpath://table[@name='BookTable']/tbody/tr[1]/th
 log to console ${col}
 ${data}= get text
 xpath://table[@name='BookTable']/tbody/tr[4]/td[1]
 log to console ${data}

 table column should contain
 xpath://table[@name='BookTable'] 2 Author
 table row should contain
 xpath://table[@name='BookTable'] 4 Learn JS
 table cell should contain
 xpath://table[@name='BookTable'] 5 2 Mukesh
 table header should contain
 xpath://table[@name='BookTable'] BookName
 #table footer should contain
 xpath://table[@name='BookTable'] `Amit
 table should contain
 xpath://table[@name='BookTable'] Price

 close browser
```

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\TableDemo.robot
=====
=====
TableDemo
=====
=====
Table
.
DevTools listening on
ws://127.0.0.1:59015/devtools/browser/0e6
f6548-1e32-4f5b-af20-665b9331819d
...7
..4
..Learn JS
Table
PASS

TableDemo
| PASS |
1 test, 1 passed, 0 failed
=====
=====
Output:
C:\Users\vlab\PycharmProjects\Robot\outpu
t.xml
Log:
C:\Users\vlab\PycharmProjects\Robot\log.h
tml
Report:
C:\Users\vlab\PycharmProjects\Robot\repor
t.html
```

## 18. Data Driven Testing Using Script in Robot Framework

### Resource File:

```
*** Settings ***
Library SeleniumLibrary
*** Variables ***
${browser} chrome
${url} https://admin-
demo.nopcommerce.com/login?returnurl=%2Fadmin%2
F

*** Keywords ***
Opening
 open browser ${url} ${browser}
 maximize browser window

Login page
 go to ${url}

Input username
 [Arguments] ${username}
 input text id:Email ${username}

Input Password
 [Arguments] ${pswd}
 input text id:Password ${pswd}

Login button
 click element
 xpath://button[@type='submit']

Logout link
 click link Logout
```

Error Message

page should contain *Login was  
unsuccessful*

Login success

page should contain *Dashboard*

Closing

close all browsers

## Test File:

\*\*\* Settings \*\*\*

Library *SeleniumLibrary*

Resource *../Resources/login\_resources.robot*

Suite Setup Opening

Suite Teardown Closing

Test Template Invalid Login

\*\*\* Test Cases \*\*\*

|                       | usr                 | pswd      |
|-----------------------|---------------------|-----------|
| Right user empty pass | admin@yourstore.com | \${EMPTY} |
| Right user wrong pass | admin@yourstore.com | hello     |
| wrong user right pass | adm@yourstore.com   | admin     |
| wrong usr wrong pass  | admin@yourstore.co  | ad        |
| wrong user empty pass | admin@yourstore.co  | \${EMPTY} |

\*\*\* Keywords \*\*\*

Invalid Login

[Arguments] \${usr} \${pswd}

Input username \${usr}

Input Password \${pswd}

Login button

Error Message

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Data_Driven_test.robot
=====
=====
Data Driven test
=====
=====

DevTools listening on
ws://127.0.0.1:49588/devtools/browser/2d7
3d8ec-ee20-413d-b2f9-14c31d6a8b8f
Right user empty pass
PASS

Right user wrong pass
PASS

wrong user right pass
PASS

wrong usr wrong pass
PASS

wrong user empty pass
PASS

```

Data Driven test

| **PASS** |

5 tests, 5 passed, 0 failed

=====

=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 19. Data Driven Testing Using Excel & CSV Files in Robot Framework

### Using EXCEL :

### Resource File:

```
*** Settings ***
Library SeleniumLibrary
*** Variables ***
${browser} chrome
${url} https://admin-
demo.nopcommerce.com/login?returnurl=%2Fadmin%2
F

*** Keywords ***
Opening
 open browser ${url} ${browser}
 maximize browser window

Login page
 go to ${url}

Input username
 [Arguments] ${username}
 input text id:Email ${username}

Input Password
 [Arguments] ${pswd}
 input text id:Password ${pswd}

Login button
 click element
 xpath://button[@type='submit']
```

Logout link  
click link      Logout

Error Message  
page should contain      Login was  
unsuccessful

Login success  
page should contain      Dashboard

Closing  
close all browsers

## Test File:

```
*** Settings ***
Library SeleniumLibrary
Resource ../Resources/login_resources.robot
Library DataDriver
file=TestData/LoginData.xlsx
```

```
Suite Setup Opening
Suite Teardown Closing
Test Template Invalid Login
```

```
*** Test Cases ***
LogintestWithExcel using ${usr} ${pswd}
```

```
*** Keywords ***
Invalid Login
 [Arguments] ${usr} ${pswd}
 Input username ${usr}
 Input Password ${pswd}
 Login button
 Error Message
```



```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\DDT_Excel.robot
```

```
=====
=====
```

```
DDT Excel
```

```
=====
=====
```

```
DevTools listening on
```

```
ws://127.0.0.1:52015/devtools/browser/86ef7581-
51a7-4e50-ba20-5e72abf0fe50
```

```
LogintestWithExcel using admin@yourstore.com
```

```
| PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.com
```

```
hello | PASS |
```

```


```

```
LogintestWithExcel using admn@yourstore.com
```

```
admin | PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.co ad
```

```
| PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.co
```

```
| PASS |
```

```


```

```
DDT Excel
```

```
| PASS |
```

```
5 tests, 5 passed, 0 failed
```

---

---

## Using CSV :

### Resource File:

```
*** Settings ***
Library SeleniumLibrary
*** Variables ***
${browser} chrome
${url} https://admin-
demo.nopcommerce.com/login?returnurl=%2Fadmin%2
F

*** Keywords ***
Opening
 open browser ${url} ${browser}
 maximize browser window

Login page
 go to ${url}

Input username
 [Arguments] ${username}
 input text id:Email ${username}

Input Password
 [Arguments] ${pswd}
 input text id:Password ${pswd}

Login button
 click element
 xpath://button[@type='submit']

Logout link
 click link Logout
```

Error Message

page should contain *Login was unsuccessful*

Login success

page should contain *Dashboard*

Closing

close all browsers

## Test File:

\*\*\* Settings \*\*\*

Library *SeleniumLibrary*

Resource *../Resources/login\_resources.robot*

Library *DataDriver*

*file=TestData/Logindata.csv*

Suite Setup Opening

Suite Teardown Closing

Test Template Invalid Login

\*\*\* Test Cases \*\*\*

LogintestWithExcel using \${usr} \${pswd}

\*\*\* Keywords \*\*\*

Invalid Login

[Arguments] \${usr} \${pswd}

Input username \${usr}

Input Password \${pswd}

Login button

Error Message

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\DDT_csv.robot
```

```
=====
=====
```

```
DDT csv
```

```
=====
=====
```

```
[WARN] Error sending stats to Plausible:
error sending request for url
(https://plausible.io/api/event): operation
timed out
```

```
DevTools listening on
ws://127.0.0.1:52773/devtools/browser/f37a77bc-
475b-4910-ac66-cb242755a2eb
```

```
LogintestWithExcel using admin@yourstore.com
```

```
| PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.com
hello | PASS |
```

```


```

```
LogintestWithExcel using admn@yourstore.com
admin | PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.co ad
| PASS |
```

```


```

```
LogintestWithExcel using admin@yourstore.co
| PASS |
```

```


```

```
DDT csv
```

```
| PASS |
```

```
5 tests, 5 passed, 0 failed
```

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 20. Setup & TearDown in Robot Framework

```
*** Settings ***
```

```
Suite Setup log to console Opening
Suite Teardown log to console Closing
```

```
Test Setup log to console login into app
Test Teardown log to console logout to
app
```

```
*** Test Cases ***
```

```
Prepaid recharge
 log to console this is prepaid recharge
```

```
Postpaid recharge
 log to console this is postpaid recharge
```

```
Search
 log to console this is search test case
```

```
Advanced search
 log to console this is advanced search
test case
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Setup_Teardown.robot
```

```
=====
```

```
=====
```

```
Setup Teardown
```

```
=====
```

```
=====
```

Opening  
Prepaid recharge  
login into app  
.this is prepaid recharge  
.logout to app  
Prepaid recharge  
| PASS |

-----  
-----  
Postpaid recharge  
login into app  
.this is postpaid recharge  
.logout to app  
Postpaid recharge  
| PASS |

-----  
-----  
Search  
login into app  
.this is search test case  
.logout to app  
Search  
| PASS |

-----  
-----  
Advanced search  
login into app  
.this is advanced search test case  
.logout to app  
Advanced search  
| PASS |

-----  
-----  
Closing  
Setup Teardown  
| PASS |  
4 tests, 4 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html



## 21. Tags | Grouping Tests in Robot Framework

```
*** Settings ***
```

```
*** Test Cases ***
```

```
RegTest
```

```
 [Tags] regression
```

```
 log to console this is registration test
```

```
 log to console registration is over
```

```
logintest
```

```
 [Tags] sanity
```

```
 log to console this is login test
```

```
 log to console login test is over
```

```
ChangeUser
```

```
 [Tags] regression
```

```
 log to console this is changing username
```

```
test
```

```
 log to console changing is done
```

```
LogOut
```

```
 [Tags] sanity
```

```
 log to console this is logging out test
```

```
 log to console logging is out is done
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot --include=sanity TestCases\Tags.robot
```

```
=====
```

```
Tags
```

```
=====
```

```
logintest
```

```
this is login test
```

```
.login test is over
```

```
logintest
```

```
| PASS |
```

```

```

```
LogOut
```

```
this is logging out test
```

```
.logging is out is done
```

```

```

```
Tags
```

```
| PASS |
```

```
2 tests, 2 passed, 0 failed
```

```
=====
```

```
Output:
```

```
C:\Users\vlab\PycharmProjects\Robot\output.xml
```

```
Log:
```

```
C:\Users\vlab\PycharmProjects\Robot\log.html
```

```
Report:
```

```
C:\Users\vlab\PycharmProjects\Robot\report.html
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot --include=regression
```

```
TestCases\Tags.robot
```

```
=====
=====
Tags
=====
=====
RegTest
this is registration test
.registration is over
RegTest
PASS

ChangeUser
this is changing username test
.changing is done

Tags
| PASS |
2 tests, 2 passed, 0 failed
=====
=====
Output:
C:\Users\vlab\PycharmProjects\Robot\output.xml
Log:
C:\Users\vlab\PycharmProjects\Robot\log.html
Report:
C:\Users\vlab\PycharmProjects\Robot\report.html
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot -i regression -i sanity
TestCases\Tags.robot
=====
=====
```

Tags

=====  
=====

RegTest

this is registration test

.registration is over

RegTest

| **PASS** |

-----  
-----

logintest

this is login test

.login test is over

logintest

| **PASS** |

-----  
-----

ChangeUser

this is changing username test

.changing is done

ChangeUser

| **PASS** |

-----  
-----

LogOut

this is logging out test

.logging is out is done

-----  
-----

Tags

| **PASS** |

**4 tests, 4 passed, 0 failed**

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

➔ **-i (include the tag)**

➔ **-e (exclude the tag)**

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot -i regression -e sanity
```

```
TestCases\Tags.robot
```

```
=====
=====
```

```
Tags
```

```
=====
=====
```

```
RegTest
```

```
this is registration test
```

```
.registration is over
```

```
RegTest
```

```
| PASS |
```

```


```

```
ChangeUser
```

```
this is changing username test
```

```
.changing is done
```

```


```

```
Tags
```

```
| PASS |
```

```
2 tests, 2 passed, 0 failed
```

```
=====
=====
```

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot -e regression TestCases\Tags.robot
```

```
=====
```

Tags

```
=====
```

logintest

this is login test

.login test is over

logintest

| PASS |

```

```

LogOut

this is logging out test

.logging is out is done

LogOut

| PASS |

```

```

Tags

| PASS |

**2 tests, 2 passed, 0 failed**

```
=====
```

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 22. Page Object Model (POM) Pattern in Robot Framework

LOC: ../PageObjects/Locator.py

```
#login page elements
```

```
txt_loginuser="name:userName"
```

```
txt_loginpassword="name:password"
```

```
loginbtn="xpath://input[@type='submit']"
```

```
#registration page elements
```

```
link_Reg="link:REGISTER"
```

```
txt_firstname="name:firstName"
```

```
txt_lastname="name:lastName"
```

```
txt_phone="name:phone"
```

```
txt_email="name:userName"
```

```
txt_add1="name:address1"
```

```
txt_city="name:city"
```

```
txt_state="name:state"
```

```
txt_postCode="name:postalCode"
```

```
txt_country="name:country"
```

```
txt_username="name:email"
```

```
txt_password="name:password"
```

```
txt_confrmpwd="name:confirmPassword"
```

```
btn_submit="xpath://input[@name='submit']"
```

```
"
```

```
txt_loginusername="name:userName"
```

```
txt_loginpassword="name:password"
```



LOC: ../Resources/Reg\_keywords.robot

\*\*\* Settings \*\*\*

Library *SeleniumLibrary*

Variables *../PageObjects/Locator.py*

\*\*\* Keywords \*\*\*

Open\_my\_browser

[Arguments]      \${url}      \${browser}

open browser      \${url}      \${browser}

maximize browser window

click reg link

click link      \${link\_Reg}

Enter firstname

[Arguments]      \${firstname}

input text      \${txt\_firstname}      \${firstname}

Enter lastname

[Arguments]      \${lname}

input text      \${txt\_lastname}      \${lname}

Enter phone

[Arguments]      \${phone}

input text      \${txt\_phone}      \${phone}

Enter email

[Arguments]      \${email}

input text      \${txt\_email}      \${email}

Enter address1

[Arguments]      \${add1}

input text      \${txt\_add1}      \${add1}

Enter city

[Arguments]      \${city}

input text      \${txt\_city}      \${city}

Enter state

[Arguments]      \${state}

input text      \${txt\_state}      \${state}

```
Enter postal code
 [Arguments] ${postalcode}
 input text ${txt_postCode} ${postalcode}
```

```
Select country
 [Arguments] ${country}
 select from list by label ${txt_country}
${country}
```

```
Enter username
 [Arguments] ${username}
 input text ${txt_username} ${username}
```

```
Enter password
 [Arguments] ${pswd}
 input text ${txt_password} ${pswd}
```

```
Enter confirm password
 [Arguments] ${confrmpwd}
 input text ${txt_confrmpwd} ${confrmpwd}
```

```
Click Submit
 click button ${btn_submit}
```

```
Successful register
 title should be Register: Mercury Tours
```

```
Enter loginusername
 [Arguments] ${user}
 Input text ${txt_loginusername} ${user}
```

```
Enter loginpassword
 [Arguments] ${pswd}
 Input text ${txt_loginpassword} ${pswd}
```

```
Click SignIn
 click button //input[@name='submit']
```

```
Successful login
 title should be Login: Mercury Tours
```

```
Closing
 close all browsers
```

LOC: ../TestCases/Registration\_test.robot

\*\*\* Settings \*\*\*

Library *SeleniumLibrary*

Resource *../Resources/Reg\_keywords.robot*

\*\*\* Variables \*\*\*

*\${browser}* *chrome*

*\${siteURL}*

*https://demo.guru99.com/test/newtours/*

\*\*\* Test Cases \*\*\*

Registration Test

set selenium speed *0.5*

Open\_my\_browser *\${siteURL}* *\${browser}*

click reg link

Enter firstname *Lochani Vilehya*

Enter lastname *Suriseti*

Enter phone *8328670983*

Enter email *lochu5vilehya@gmail.com*

Enter address1 *India*

Enter city *Rajahmundry*

Enter state *Andhra Pradesh*

Enter postal code *533102*

Select country *CANADA*

Enter username *lochu-55*

Enter password *Lovely@3455*

Enter confirm password *Lovely@3455*

Click Submit

Successful register

go to

*https://demo.guru99.com/test/newtours/index.php*

Enter loginusername *lochu-55*

```
Enter loginpassword Lovely@3455
click SignIn
Successful login
Closing
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Registration_test.robot
=====
=====
Registration test
=====
=====
Registration Test
.
DevTools listening on
ws://127.0.0.1:53381/devtools/browser/2110d5a1-
0fed-4bf8-89d1-873849cffd9b
Registration Test
PASS

Registration test
| PASS |
1 test, 1 passed, 0 failed
=====
=====
Output:
C:\Users\vlab\PycharmProjects\Robot\output.xml
Log:
C:\Users\vlab\PycharmProjects\Robot\log.html
Report:
C:\Users\vlab\PycharmProjects\Robot\report.html
```

## 23. Parallel Test Execution in Robot Framework

### How to run test suites

#### 1. Using specific folder

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\
```

→ it runs all tests under the TestCases folder

#### 2. Using regular expressions

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Reg*.robot
```

→ It runs all tests in TestCases folder  
starting with name Reg

### How to run tests parallelly using robot framework-pabot

```
(.venv) PS
C:\Users\vlab\PycharmProjects\Robot>
pabot --processes 2
Testcases\POM_test.robot
Testcases\Registration_test.robot
```

Storing .pabotsuitenames file

```
2024-04-03 10:01:46.383062 [PID:4012] [0]
[ID:1] EXECUTING Suites.Registration test
```

2024-04-03 10:01:46.384062 [PID:17516]  
[1] [ID:0] EXECUTING Suites.POM test

DevTools listening on  
ws://127.0.0.1:54486/devtools/browser/65f83b29-3bf3-472e-afbe-a0a5c0c9162c

DevTools listening on  
ws://127.0.0.1:54487/devtools/browser/bc6282a7-aa85-4be9-89ac-4e91c2825be7

2024-04-03 10:02:01.943993 **[PID:4012]** [0]  
[ID:1] still running Suites.Registration  
test after 15.0 seconds

2024-04-03 10:02:02.044538 **[PID:17516]**  
[1] [ID:0] still running Suites.POM test  
after 15.0 seconds

2024-04-03 10:02:22.054413 [PID:4012] [0]  
[ID:1] still running Suites.Registration  
test after 35.0 seconds

2024-04-03 10:02:22.152726 [PID:17516]  
[1] [ID:0] still running Suites.POM test  
after 35.0 seconds

2024-04-03 10:02:47.444835 [PID:4012] [0]  
[ID:1] still running Suites.Registration  
test after 60.0 seconds

2024-04-03 10:02:47.555756 [PID:17516]  
[1] [ID:0] still running Suites.POM test  
after 60.0 seconds

2024-04-03 10:03:17.801760 [PID:4012] [0]  
[ID:1] still running Suites.Registration  
test after 90.0 seconds

2024-04-03 10:03:17.947891 [PID:17516]  
[1] [ID:0] still running Suites.POM test  
after 90.0 seconds

2024-04-03 10:03:29.918476 [PID:17516]  
[1] [ID:0] **PASSED** Suites.POM test in  
101.9 seconds

2024-04-03 10:03:53.055293 [PID:4012] [0]  
[ID:1] still running Suites.Registration  
test after 125.0 seconds

2024-04-03 10:03:58.075602 [PID:4012] [0]  
[ID:1] **PASSED** Suites.Registration test in  
130.0 seconds

**2 tests, 2 passed, 0 failed, 0 skipped.**

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

**Total testing: 3 minutes 51.90 seconds**

**Elapsed time: 2 minutes 12.66 seconds**

## **To create separate folders for outputs**

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
pabot --processes 2 --outputdir POM_Results
Testcases\POM_test.robot
Testcases\Registration_test.robot
```

## **How to run tests using single windows bat file**

➔ Used to run the robot files from the  
command prompt

➔ Create a run.bat file at project level

```
cd C:\Users\vlab\PycharmProjects\Robot
pabot --processes 2 --outputdir Results
Testcases\POM_test.robot
Testcases\Registration_test.robot
```

➔ Right click on the run.bat file using "Run  
cmd script"



## 24. Headless Browser Testing in Robot Framework

- ➔ Here we can't see the UI
- ➔ To run in backend we must replace the browser name "chrome" to "headlesschrome"
- ➔ We can also use it for other browsers like "headlessfirefox"
- ➔ The execution of the code is done in the back end
- ➔ Only we can see the output in the console

Example:

```
*** Settings ***
Library SeleniumLibrary
Resource ../Resources/resources.robot

*** Variables ***
${browser} headlesschrome
${url} https://demo.guru99.com/test/newtours/

*** Test Cases ***
TC1
 ${pageTitle}= LoginBrowser ${url}
 ${browser}

 log to console ${pageTitle}
 log ${pageTitle}
 input text userName
 lochu5viehya@gmail.com
```

```
input text password Lovely@3455
close browser
```

```
(.venv) PS
```

```
C:\Users\vlab\PycharmProjects\Robot>
```

```
robot TestCases\UserDefinedKeywords.robot
```

```
[WARN] Error in file
```

```
'C:\Users\vlab\PycharmProjects\Robot\Resources\resources.robot' on line 11: The
```

```
'[Return]' setting is deprecated. Use the
```

```
'RETURN' stat
```

```
ement instead.
```

```
=====
```

```
=====
```

```
UserDefinedKeywords
```

```
=====
```

```
=====
```

```
TC1
```

```
DevTools listening on
```

```
ws://127.0.0.1:55895/devtools/browser/eab
```

```
e6950-b29a-4656-9b76-0f37d4265519
```

```
.Welcome: Mercury Tours
```

TC1

| **PASS** |

-----

-----

UserDefinedKeywords

| **PASS** |

1 test, 1 passed, 0 failed

=====

=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 25. How to use IF ELSE in Robot Framework

### HOW TO USE IF/ELSE IN ROBOT FRAMEWORK

- If/Else - Conditional statement which runs a different set of statements depending on whether an expression is true or false
- Robot Framework has builtin library for this functionality
- You can also use multiple "ELSE IF" clause
- It can also have "ELSE" clause

```
Run Keyword If ${condition} == "Some Data" Keyword1
... ELSE IF ${condition} == "Some Other Data" Keyword2
... ELSE Keyword3
```

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://www.saucedemo.com/

*** Test Cases ***
Test using if else
 open browser ${url} ${browser}
 maximize browser window
 input text id:user-name
 standard_user
 input text id:password
 secret_sauce
 click button xpath://input[@name='login-
button']
 ${items}= get element count
```

```
xpath://*[@class='inventory_list']/div
```

```
run keyword if ${items} == 10 Test1
... ELSE IF ${items} < 10 and
${items} > 6 Test2
... ELSE Test3
```

```
*** Keywords ***
```

```
Test1
```

```
log to console Found items as expected
close browser
```

```
Test2
```

```
log to console Founde items less than
expected
close browser
```

```
Test3
```

```
log to console Exception occured
close browser
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\if_else.r
obot
```

```
=====
=====
```

```
=====
```

```
If Else
```

```
=====
=====
```

```
=====
```

```
Test using if else
```

```
DevTools listening on
```

```
ws://127.0.0.1:57358/devtools/browser/a54a7905-
8ba2
```

-4a4f-a2f7-6ae0efe6d1b2

.....6

**.Exception occurred**

Test using if else

| **PASS** |

-----  
-----  
-----

If Else

| **PASS** |

1 test, 1 passed, 0 failed

=====  
=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html

## 26. List Variable in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://www.saucedemo.com/
@{username} standard_user locked_out_user
... problem_user performance_glitch_user
... error_user visual_user

*** Test Cases ***
Test List variable
 open browser ${url} ${browser}
 maximize browser window
 set selenium speed 1
 input text id:user-name
 ${username}[3]
 input text id:password
 secret_sauce
 click button xpath://input[@name='login-
button']
 ${items}= get element count
 xpath://*[@class='inventory_list']/div
 log to console ${items}

*** Keywords ***
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\list_variable.robot
=====
=====
List Variable
=====
=====
Test List variable
```

DevTools listening on  
ws://127.0.0.1:57580/devtools/browser/dd5e6768-  
1684-4ce1-962c-87fbbaa877266

.....**6**

Test List variable

| **PASS** |

-----  
-----

List Variable

| **PASS** |

1 test, 1 passed, 0 failed

=====  
=====

Output:

C:\Users\vlab\PycharmProjects\Robot\output.xml

Log:

C:\Users\vlab\PycharmProjects\Robot\log.html

Report:

C:\Users\vlab\PycharmProjects\Robot\report.html



## 27. Dictionary Variable in Robot Framework

```
*** Settings ***
Library SeleniumLibrary

*** Variables ***
${browser} chrome
${url} https://www.saucedemo.com/
&{username} a=standard_user
 b=locked_out_user
 ... c=problem_user
 d=performance_glitch_user
 ... e=error_user f=visual_user

*** Test Cases ***
Test List variable
 open browser ${url} ${browser}
 maximize browser window
 set selenium speed 1
 input text id:user-name
 ${username}[c]
 input text id:password
 secret_sauce
 click button xpath://input[@name='login-
button']
 ${items}= get element count
 xpath://*[@class='inventory_list']/div
 log to console ${items}

*** Keywords ***
```

```
(.venv) PS C:\Users\vlab\PycharmProjects\Robot>
robot TestCases\Dict_variable.robot
=====
Dict variable
=====
Test List variable
DevTools listening on
ws://127.0.0.1:57623/devtools/browser/a7162f36-
b04a-4e0a-bb5e-89081e335ab7
.....6
Test Dict variable
PASS
Dict variable
PASS
1 test, 1 passed, 0 failed
=====
Output:
C:\Users\vlab\PycharmProjects\Robot\output.xml
Log:
C:\Users\vlab\PycharmProjects\Robot\log.html
Report:
C:\Users\vlab\PycharmProjects\Robot\report.html
```