

ROBOT FRAMEWORK

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INDEX:

1. Introduction to Robot Framework

- Environment Setup
- Selenium with Python

2. First Test Case in Robot Framework

- File Extensions
- Writing Robot File
- Reporting

3. How To Handle Input Box in Robot Framework

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

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

6. Waits & Time-outs in Robot Framework |

- Selenium Speed
- Selenium Timeout
- Implicit wait
- Sleep

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

8. How to Handle Alerts & Frames Robot Framework

9. How to Handle Tabbed Windows & Browser Windows

10. Browser related Keywords

- Go To
- Go Back
- Get Location

11. How to Capture Element & Full Page Screenshot

12. How to perform Mouse Operations in Robot Framework

- Right click
- Double click
- Drag and drop

13. User Defined Keywords & Resource Files in Robot Framework

- User defined keywords with arguments
- User defined keywords without arguments
- User defined keywords with arguments and return value

14. Scrolling Page using JavaScript executor in Robot Framework

- Scrolling page till it reach a pixel number
- Scrolling page till we find a element

- Scrolling Page till the bottom

15. How to work with FOR loop in Robot

Framework

- For loop with IN RANGE
- For loop without “IN RANGE”
- For loop with list
- For loop with exit condition

16. How to Count & Extract Link Texts in Robot

Framework

17. How to Handle Web/HTML Table in Robot

Framework

- Count number of rows in table
- Count number of columns in the table
- Get data from table
- Validation of table

18. Data Driven Testing Using Script in Robot

Framework

19. Data Driven Testing Using Excel & CSV Files in

Robot Framework

20. Setup & TearDown in Robot FrameworkRobot

- Test Setup – will run before every test case
- Test Teardown – will run after every test case

- Suite Setup – will run before test suite
- Suite Teardown – will run after the test suite

21. Tags | Grouping Tests in Robot Framework

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

23. Parallel Test Execution in Robot Framework

- How to run test suites
- How to run tests parallelly using robot framework-pabot
- How to save results in results folder
- How to run tests using single windows bat file

24. Headless Browser Testing in Robot Framework

25. How to use IF ELSE in Robot Framework

26. List Variable in Robot Framework

27. Dictionary Variable in Robot Framework

1.Introduction to Robot Framework



Robot Framework (Selenium +Python)

Web Automation

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Slide 1 of 35

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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Slide 2 of 35

```
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



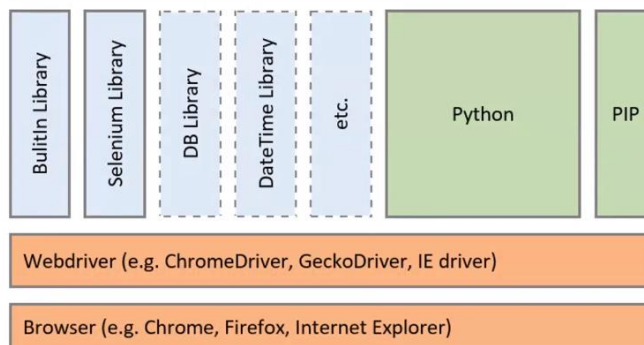
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Slide 3 of 35

Robot Framework IDE

RIDE / Pycharm with IntelliJ plugin

Robot Framework



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Slide 4 of 35

Setup

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

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Slide 5 of 35

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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Slide 17 of 35

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...
Requirement already satisfied: robotframework>=2.8.7 in c:\program files (x86)\python3.6.4\lib\site-packages
Requirement already satisfied: selenium>=3.4.0 in c:\program files (x86)\python3.6.4\lib\site-packages
Requirement already satisfied: urllib3 in c:\program files (x86)\python3.6.4\lib\site-packages
Installing collected packages: robotframework-seleniumlibrary
Successfully installed robotframework-seleniumlibrary-3.3.1
```

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

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Slide 19 of 35

IntelliBotSeleniumLibrary plugin (Robotframework IDE for Pycharm)

The screenshot shows the PyCharm Settings window with the 'Plugins' tab selected. The left sidebar lists various settings categories, with 'Plugins' highlighted. The main area shows a search for 'IntelliBot' with two results: 'IntelliBot' (already installed) and 'IntelliBot @SeleniumLibrary Patched' (available for installation). The 'IntelliBot @SeleniumLibrary Patched' entry is highlighted with a red box. The right pane shows the details for the selected plugin, including its version (0.10.143.381), release date (May 03, 2018), and a description of its features for supporting the Robot Framework.

Settings

Plugins

Search: intellibot

Search Results (2) Sort By: Relevance

IntelliBot
192.9K 4 Millennial Media
Installed

IntelliBot @SeleniumLibrary Patched
36.2K 5 Millennial Media
Install

IntelliBot @SeleniumLibrary Patched

36.2K 5 Millennial Media

Languages 0.10.143.381 May 03, 2018

Plugin homepage

IntelliBot, Robot Framework Support

The IntelliBot plugin for IntelliJ/Pycharm adds smart editing features to support the Robot Framework.

Make sure to setup your IDE correctly to gain Python support.

Find us in Github.

- Feature Set
- Wiki
- Issue tracker
- Complete Change Notes

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Slide 21 of 35

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

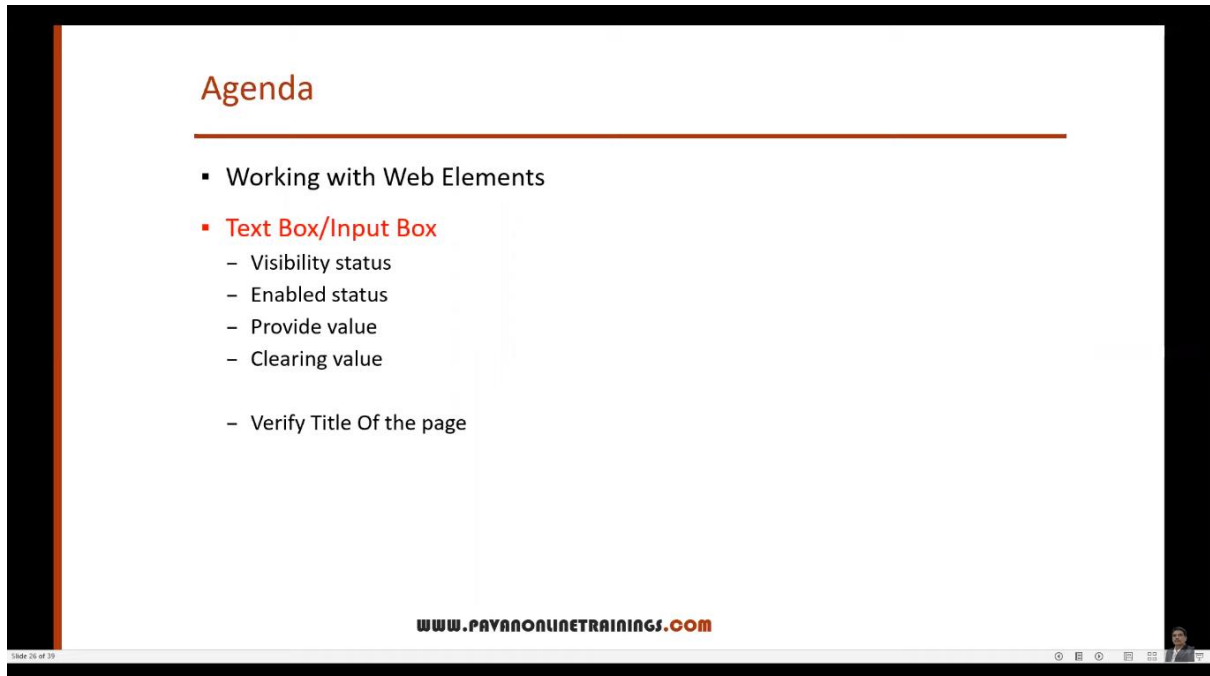
=====

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-points: 'Visibility status', 'Enabled status', 'Provide value', and 'Clearing value'. At the bottom center is the URL 'WWW.PAYANONLINETRAININGS.COM' in black. A small video feed of a person is in the bottom right corner.

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\Radiobtn
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\DropDown
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://techcavass.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\Multise
lect_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\output.xml

Log:

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

Report:

C:\Users\vlab\Desktop\Robot_framework\report.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\report.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\re  
port.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/d95dc4c6-3c97-43c9-ab6f-3619712ef73c
```

```
..
```

```
DevTools listening on
```

```
ws://127.0.0.1:50745/devtools/browser/d7a44242-22f6-44a5-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\output.xml

Log:

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

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-2dff1b9dac88
```

```
[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\outpu  
t.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/1f1
331b0-ff63-4690-9248-21a65431ffac
```

```
...https://demo.automationtesting.in/Wind
ows.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/7bd
e3041-4ee1-40ec-972a-fa8e8b17b698
```

```
.....[10224:25360:0401/141404.984:ERROR:c
ert_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 Lovely@3455
 close browser
```

## 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](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
 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%2F*

\*\*\* 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 ***
Right user empty pass usr admin@yourstore.com pswd ${EMPTY}
Right user wrong pass usr admin@yourstore.com pswd hello
wrong user right pass usr admn@yourstore.com pswd admin
wrong usr wrong pass usr admin@yourstore.co pswd ad
wrong user empty pass usr admin@yourstore.co pswd ${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%2F*

\*\*\* 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 FrameworkRobot*

```
*** 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/65f  
83b29-3bf3-472e-afbe-a0a5c0c9162c

DevTools listening on  
ws://127.0.0.1:54487/devtools/browser/bc6  
282a7-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-87fbaa877266
```

```
.....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
```