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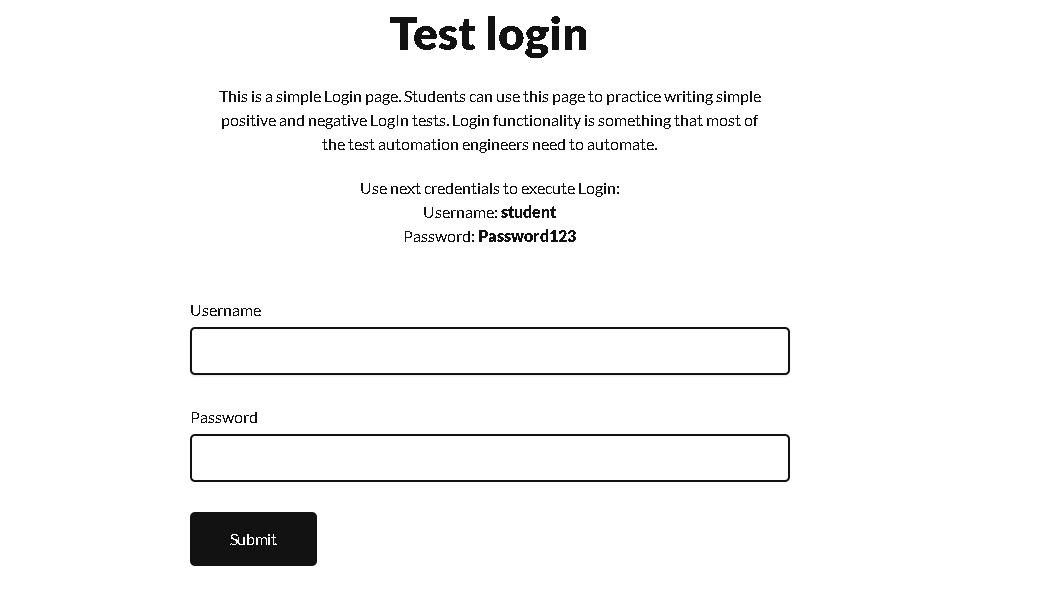
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**Scenario, Test Cases and Test Scripts**



**Scenario**

Verify to open the website properly work

Verify to open the website to show test login

Verify the all function work properly

Verify the username input box work properly

Verify the Password input box work properly

Verify the give username is student and password is Password123

Verify the submit button it go the dashboard.

**Test Cases**

Header

Main

Footer

# 1. Acceptance Testing

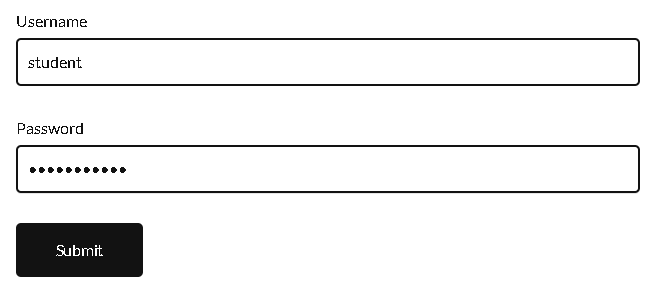
1. Acceptance Criteria
2. Test Scenarios
3. Test Cases
4. Test Script

**1. Valid Criteria (User requirement)**

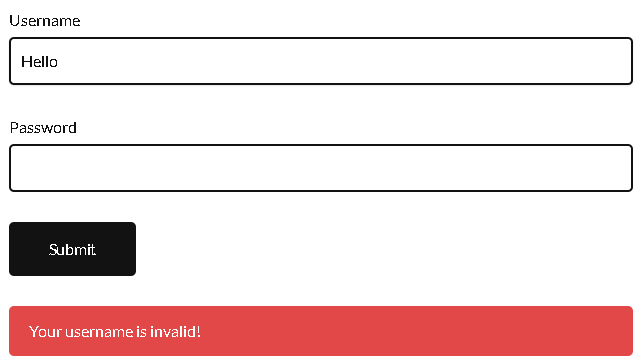
Login the website

* Username : student
* Password : Password123

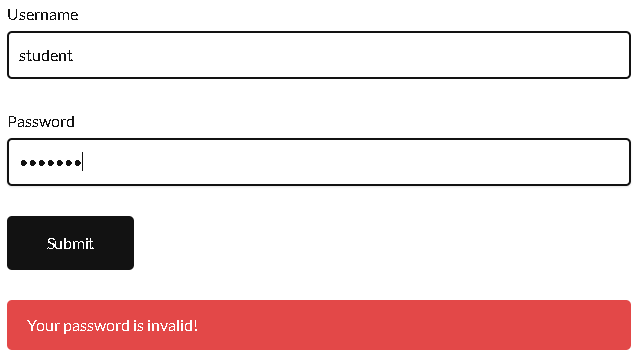
1. **Successful Login:** Entervalidusername and password (student / Password123) submit the page it should redirect the success page a confirmation message.



**2. Invalid Username:** Enter an incorrect username with a correct password should display on error message: “Your username is invalid”



**3.** **Invalid Password:** Enter the correct username with an incorrect password should display n error message: “Your password is invalid”



**2. Manual Test Scenario**

1. Positive Scenario

2. Negative Scenario

1. Positive Login Test

User enter the URL or website link

Test case

* Verify the url link click it will open login page
* Verify the page display a Test Login message

2. Positive Login Test

User enter the correct username and password

Test step

* Verify the URL link <https://practicetestautomation.com/practice-test-login/>
* Username : student
* Password : Password123
* Click the submit button
* Verify the url <https://practicetestautomation.com/logged-in-successfully/>
* Verify the page display a success message
* Verify a “Log Out button” is present.

3. Negative Login Test

User enter the incorrect username with valid password.

Test step

* Verify the login page
* Enter username : invalid user
* Enter password : Password123
* Click the Submit button
* Verify the error message is displayed “Your username is invalid”

4. Negative Login Test

User enter the correct username with incorrect password

Test step

* Verify the login page
* Enter username : student
* Enter password : invalid Password
* Click the submit button
* Verify the error message is displayed “Your password is invalid”

**3. Manual Test case Template**

Scenario-1

Header

Requirement no: A001

Test Case ID: TC001

Project Name: Test Automation

Module Name: Login Page

Priority: High

Why Priority high because Login button click it go to next page it is important.

Body

After complete the project check

the website enter write the column

1 2 3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Step No | Description/  Action | Steps | Input Data | Excepted Result | Actual Result | Status | Comments |
| 1 | User enter the URL or website link. | \*Open Chrome Browser  \*Enter the url  \*Close the browser | NA  <https://practicetestautomation.com/practice-test-login/>  NA | Test Login Page Should be Displayed | Test Login Page Should be Displayed | PASS | -- |

Footer

Author

Received By

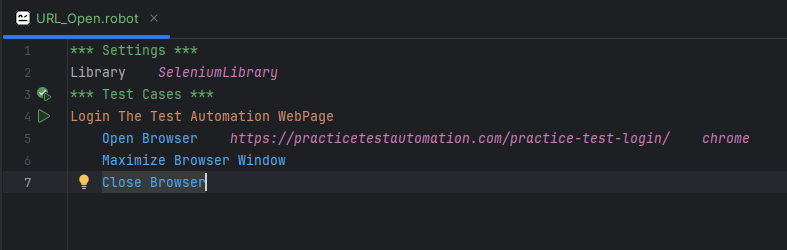
Approved By

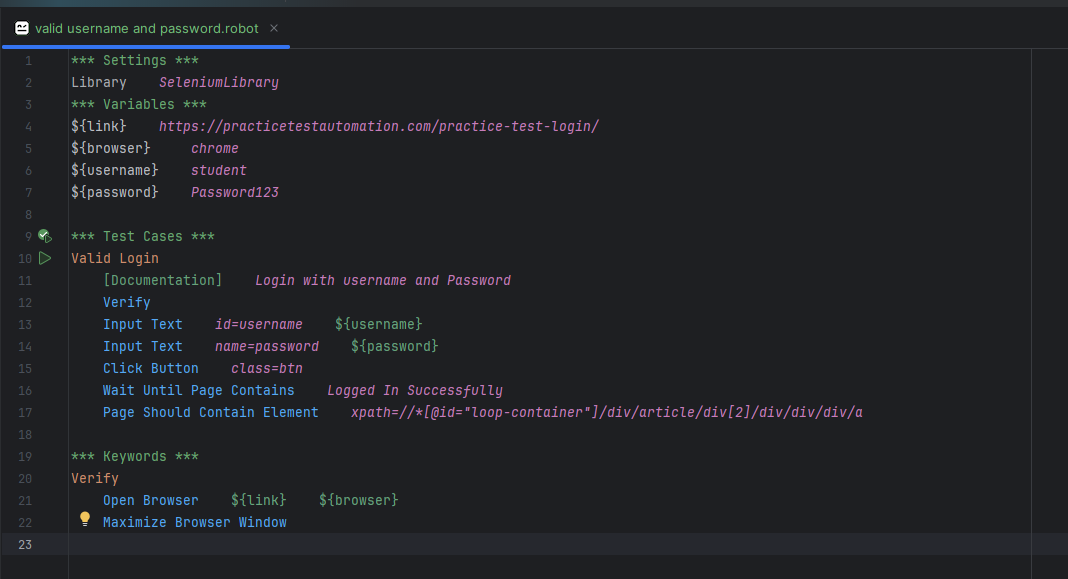
Scenario-2, 3, 4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case ID | Description | Steps | Expected Result | Status |
| TC002 | Successful login  or  User enter the correct username and password | \*Open Chrome Browser  \*Enter the Website URL  \*Navigate to Login Page  \*Enter the valid username and password  \*Submit | Redirect to success conformation and Logout button | Pass / Fail |
| TC003 | Invalid username  Or  User enter the invalid username with valid password | \*Open Chrome  Browser  \*Enter the website URL  \*Navigate to Login Page  \*Enter the Invalid username and valid password  \*submit | Displayed the error message  “Your username is invalid” | Pass / Fail |
| TC004 | Valid Username  Or  User enter the valid username with valid password | \*Open Chrome Browser  \*Enter the website URL  \*Navigation to Login Page  \*Enter the Valid username and Invalid password  \*submit | Displayed the error message  “Your password is invalid” | Pass / Fail |

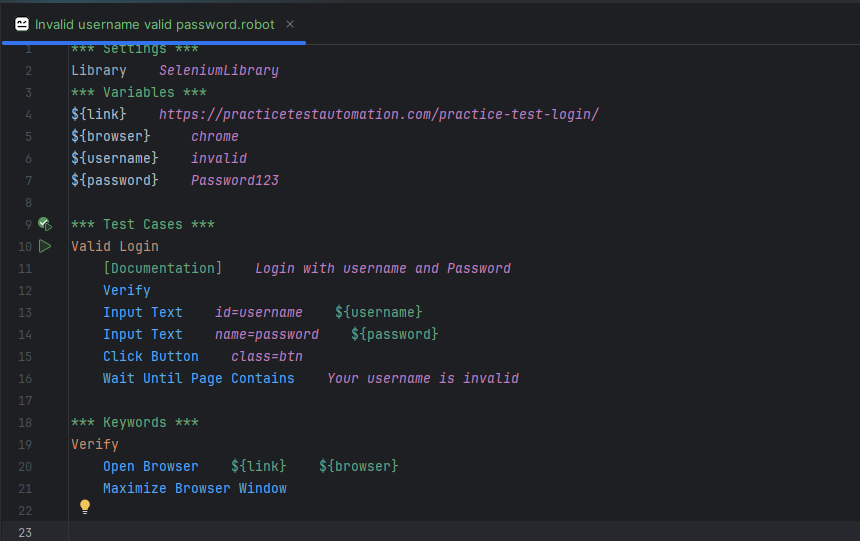
**4. Test Case in Robot Framework**

**Scenario-1**

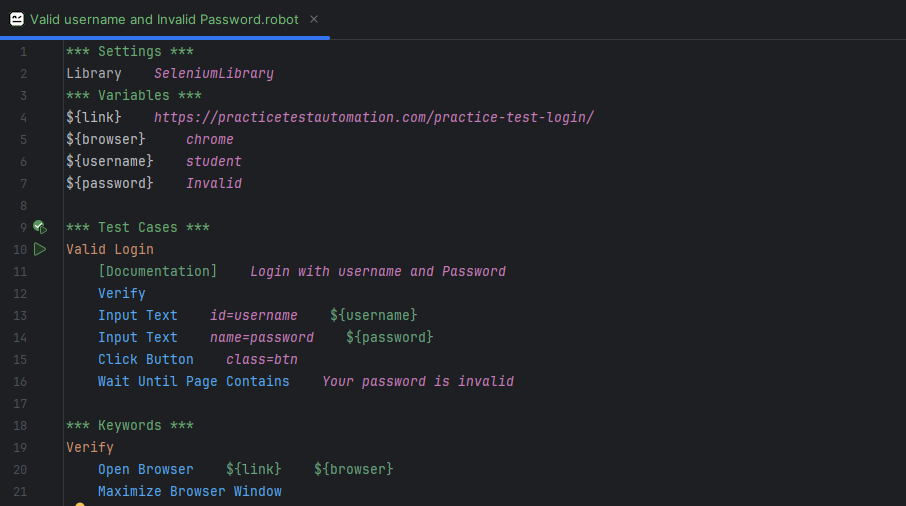
****

**Scenario-2**

**Scenario-3**

****

**Scenario-4**

****

## 2. Keyword – Driven Testing

Keyword – Driven Testing is a type of functional automation testing framework that separates test case logic from the actual test scripts code.

It defines keyword actions and uses them in test scenario.

**1. Valid requirement**

* Username : student
* Password : Password123

**2. Manual Test Scenario**

1. Verify the URL to Open Login Page

2. Verify the Valid username and Password

3. Verify the Invalid username and valid password

4. Verify the Valid username and Invalid Password

**3. Manual Test Case**

Scenario-1

Verify the URL

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Action | Test Data | Expected Result |
| TC001 | Open the URL link | N/A | Login Page is  Displayed |

Scenario-2

Valid Username and Password

|  |  |  |  |
| --- | --- | --- | --- |
| Step or Test Case No | Action | Test Data | Expected Result |
| TC002 | \*Open The Browser  \*Enter the link or URL  \*Navigate to login Page  \*Enter username  \*Enter Password  \*Click Submit Button  \*Show the logout button | N/A  N/A  N/A  Student  Password123  N/A  N/A | Browser is display  Go to Valid Link  Login Page is displayed  Username is entered  Password is entered  Redirected the homepage  Logout button is displayed |

Scenario-3

Login with invalid username with valid password

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Action | Test Data | Expected Results |
| 1 | Open Browser | N/A | Browser is display |
| 2 | Enter Valid URL | N/A | Go to Valid Link |
| 3 | Navigate to Login Page | N/A | Login Page is displayed |
| 4 | Enter wrong Username | Invalid user | Username is entered |
| 5 | Enter Valid Password | Password123 | Password is entered |
| 6 | Click submit button | N/A | Error message “Your username is invalid” on displayed |
|  |  |  |  |

Scenario-4

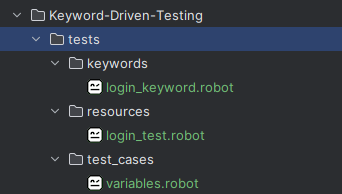
Login with valid username with Invalid Password

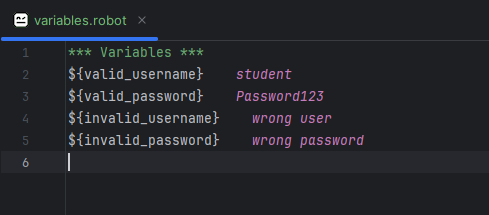
|  |  |  |  |
| --- | --- | --- | --- |
| Step | Action | Test Data | Expected Results |
| 1 | Open Browser | N/A | Browser is display |
| 2 | Enter Valid URL | N/A | Go to Valid Link |
| 3 | Navigate to Login Page | N/A | Login Page is displayed |
| 4 | Enter Valid Username | student | Username is entered |
| 5 | Enter wrong Password | Wrong password | Password is entered |
| 6 | Click submit button | N/A | Error message “Your Password is invalid” on displayed |

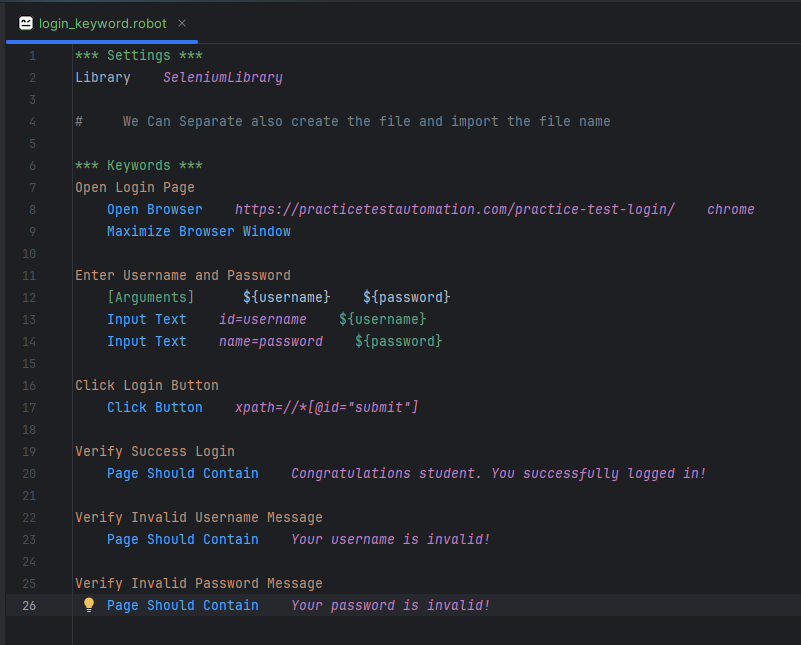
**4. Test Script in robot Framework**

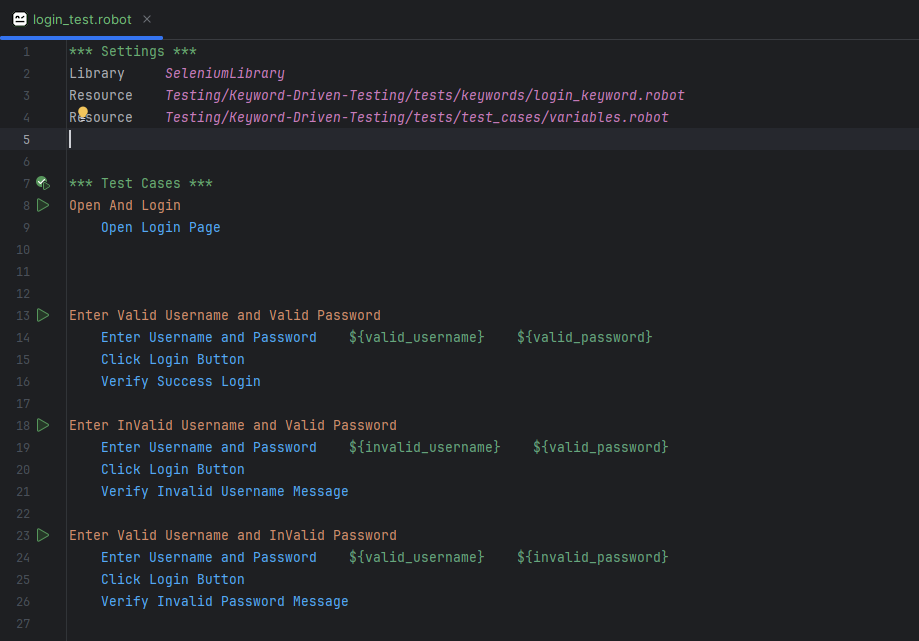
pip install robotframework

pip install robotframework-seleniumlibrary

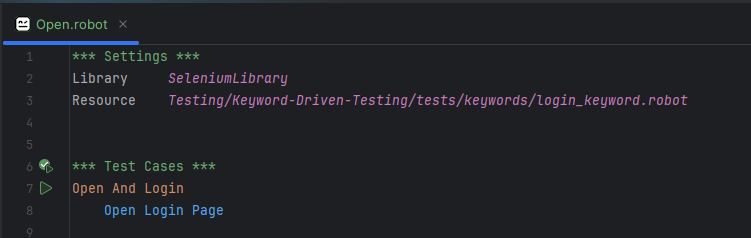




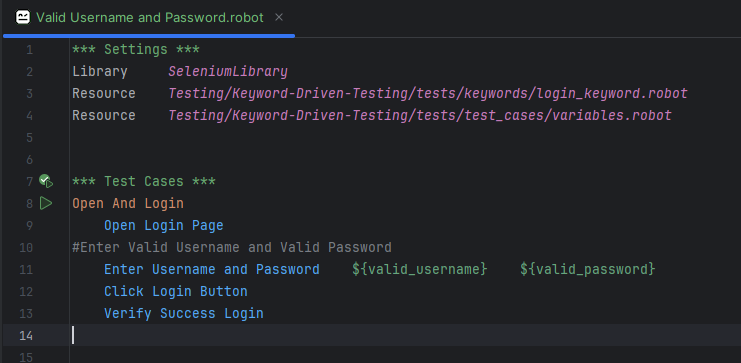




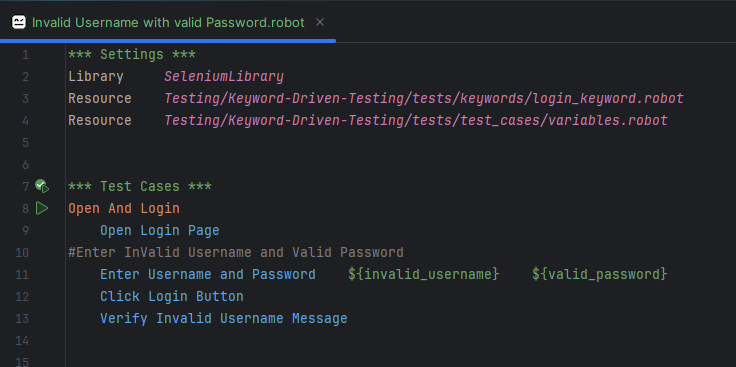
Scenario-1



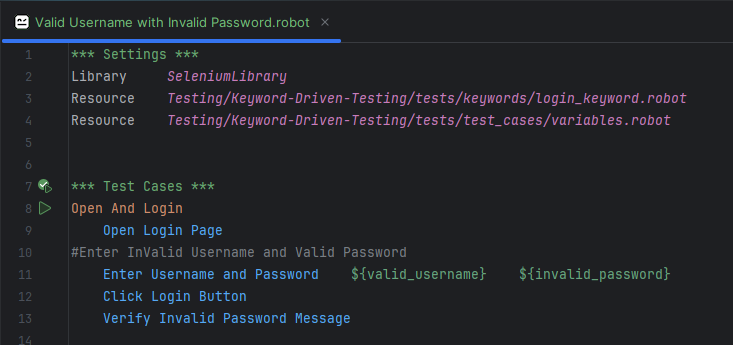
Scenario-2



Scenario-3



Scenario-4



Why use this Format?

Keyword-Driven Acceptance Testing also suitable for Functional & Regression Testing

Why use this format?

1. Reusable Action Block (login\_keyword.robot)

2. test\_case / login\_test.robot (Actual test Scenario)

Clear, easy to read.

3. resources / variable.robot (Test Data)

Stores variable like username, password

## 💡 **Benefits of This Format**

| **Benefit** | **Description** |
| --- | --- |
| ✅ **Modularity** | Separates logic, data, and test flows — easier to manage. |
| 🔄 **Reusability** | Keywords can be reused across many test cases. |
| 📚 **Readability** | Tests look like plain English, easy for non-developers to understand. |
| 📦 **Maintainability** | Changes (like UI updates) only require updating keywords, not all test cases. |
| 🔍 **Scalability** | Easy to add new tests and functionality as your app grows. |
| 🤝 **Team Friendly** | QA, developers, and non-tech stakeholders can collaborate more easily. |

# 3. Behavior-Driven Development (BDD) Testing?

**What is BDD Testing?**

BDD (Behaviour Driven Development) is a software development methodology that enhances communication between developers, QA, and non-technical stakeholders by writing tests in natural, human-readable language (often using Gherkin syntax like Given, When, Then).

Given -- Precondition

When – Action (what user or system doing)

Then – Excepted outcome/result

And – Add more steps under Given, When

We can use Given, When, Then, And, But (Used for proper line making)

**Why use BDD Testing?**

* Collaboration between developers, testers, and business analysts.
* Uses plain English scenario so even non-tech stakeholders can understand.
* Everyone can understand the requirement because test cases are written in natural language (e.g., “Given the user logs in”)
* You’re not just testing technical functions --- you’re testing what the user actually does and expects from the system.
* Reduces Miscommunication
* BDD tools support like Cucumber, Behave, Spec Flow, Robot Framework

User can Login ---- Given user is on login page

When user enters valid username and password

Then user sees dashboard.

Write

1. **Gherkin scenarios**

2. **Manual test cases**

3. **Robot Framework test scripts** for automation

Acceptance Testing Scenario

Verify to open the website properly work

Verify to open the website to show test login

Verify the all function work properly

Verify the username input box work properly

Verify the Password input box work properly

Verify the give username is student and password is Password123

Verify the submit button it go the dashboard.

1. Gherkin Scenario

Features: Login functionality

**1. User enter the URL in browser**

Given the user open the browser

When the user enters the valid URL

And see the message “Login Page”

Wrong Format but word start different it make clear sentence make.

Given the user open the browser

Given the user enters the valid URL

Then see the message “Login Page”

Follow Format

* Start letter should be Capital like Given,Then,And
* Use Given Only once at the start of setup.
* Use And or But
* Use When for the action
* Use Then for validation or output.

**2. Successful Login with valid username and password**

Given login page is open

When user enters username student

Then user enters password Password123

And user clicks login button

Then user should see the success message

**3. Invalid username with valid password**

Given login page is open

When user enter invalid username wrong user

Then user enter valid password Password123

And user click login button

Then user should see the username invalid message

**4. Valid username with invalid password**

Given login page is open

When user enter valid username student

Then user enter invalid password wrong password

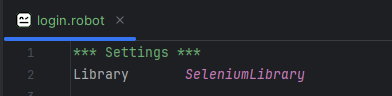
And user click login button

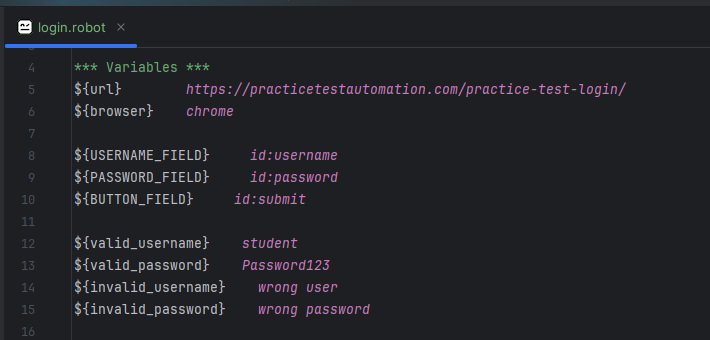
Then user should see the password invalid message

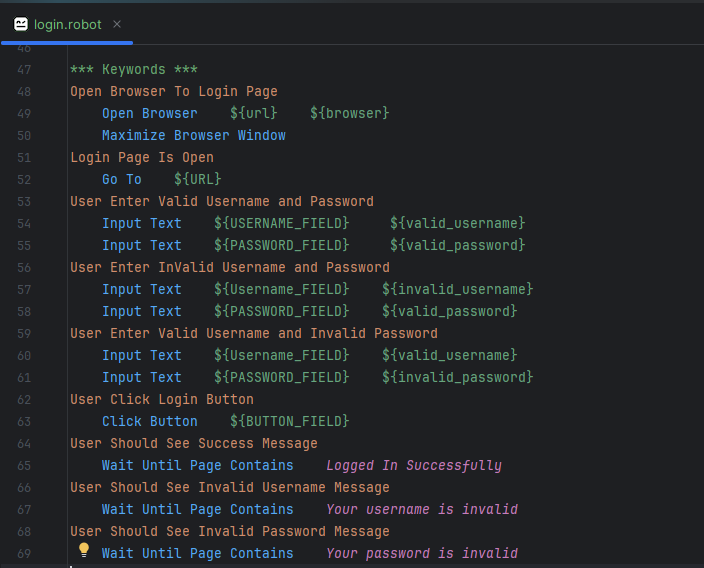
Test Case

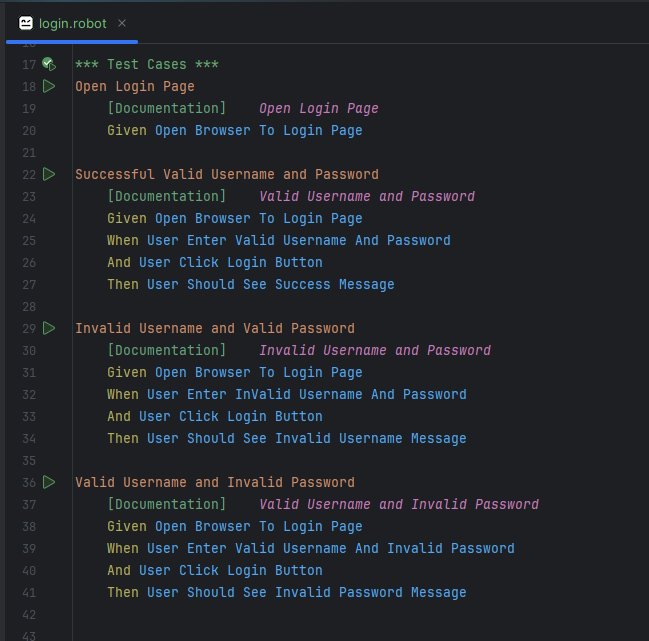
|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Title** | **Steps** | **Expected Results** |
| TC01 | Valid url | \*Open Browser  \*Search the website  https://practicetestautomation.com/practice-test-login/ | User is redirected to the Login Page |
| TC02 | Valid username and password | \* Go to login page  \*Enter username in student  \*Enter password in Password123  \*Click submit button | User is redirected to the page with “Logged in Successfully” message. |
| TC03 | Invalid username | \*Enter invalid username and valid password | User show the error message is displayed “Your username is invalid” |
| TC04 | Invalid Password | \*Enter valid username and invalid password | User show the error message is displayed “Your password is invalid” |

3. Test Scripts in robot framework









## 🔄 **BDT vs Keyword-Driven Testing (KDT)**

| **Feature** | **Behavior-Driven Testing (BDT)** | **Keyword-Driven Testing (KDT)** |
| --- | --- | --- |
| **Focus** | User behavior/scenarios | Actions/keywords |
| **Test Language** | Natural language (Gherkin format) | Technical keywords |
| **User Involvement** | High (business, testers, developer) | Low (mostly testers) |
| **Tool Example** | Cucumber, Behave, Robot Framework | Robot Framework, UFT |
| **Readability** | High (for non-technical users) | Medium |
| **Example** | Given user logs in with valid data | Input Text |

## 🔹 **Difference between BDD and Acceptance Testing**

| **Aspect** | **BDD** | **Acceptance Testing** |
| --- | --- | --- |
| Focus | Behavior from the user's perspective | Whether the system meets requirements |
| Language | Natural language (Gherkin-style) | Can be technical or natural language |
| Stakeholders | Involves all (dev, QA, business) | Mostly QA and business |
| Tools | Cucumber, Behave, Robot Framework | TestRail, Selenium, FitNesse, manual scripts |
| Style | Given/When/Then | Pass/Fail checks against acceptance criteria |

## 🔁 BDT vs. Acceptance Testing vs. Keyword Driven Testing

| **Feature** | **Behavior Driven Testing (BDT)** | **Acceptance Testing** | **Keyword Driven Testing** |
| --- | --- | --- | --- |
| **Focus** | User behavior | Functional requirements | Action-based automation  (User give the value like Input Text) |
| **Language** | Natural language (Given-When-Then) | Business/test case format | Keywords like Click, Input |
| **User Involvement** | High (BA, QA, Devs) | Medium (BA, QA) | Low (QA/Testers) |
| **Tool Examples** | Cucumber, Behave | FitNesse, TestRail | Robot Framework, UFT |
| **Maintainability** | High | Medium | High |

|  |  |  |
| --- | --- | --- |
|  |  |  |

# 4. Data-Driven Testing

Data-Driven Testing (DDT) is a testing methodology in which test data is stored separately (e.g., in Excel, CSV, or variables), and the same test script is run multiple times different sets of data.

The same test is run multiple times different sets of input data and expected results.

It helps check how the application behaves with multiple input, and reduces test case duplication

Why

Save time [same test logic, different inputs.

Manual Testing

Test Scenario: Login Functionality on Practice Test Login Page

Scenario Name: Validate login functionality with various credential combinations.

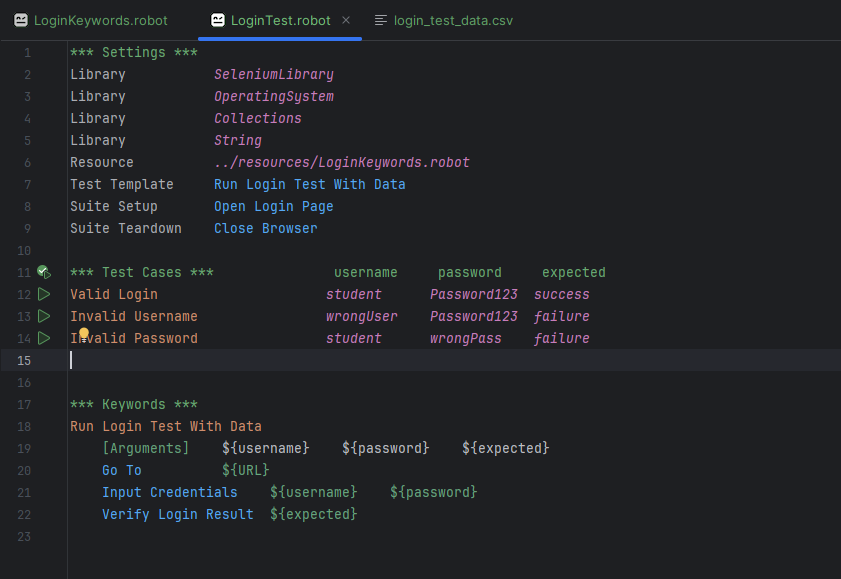
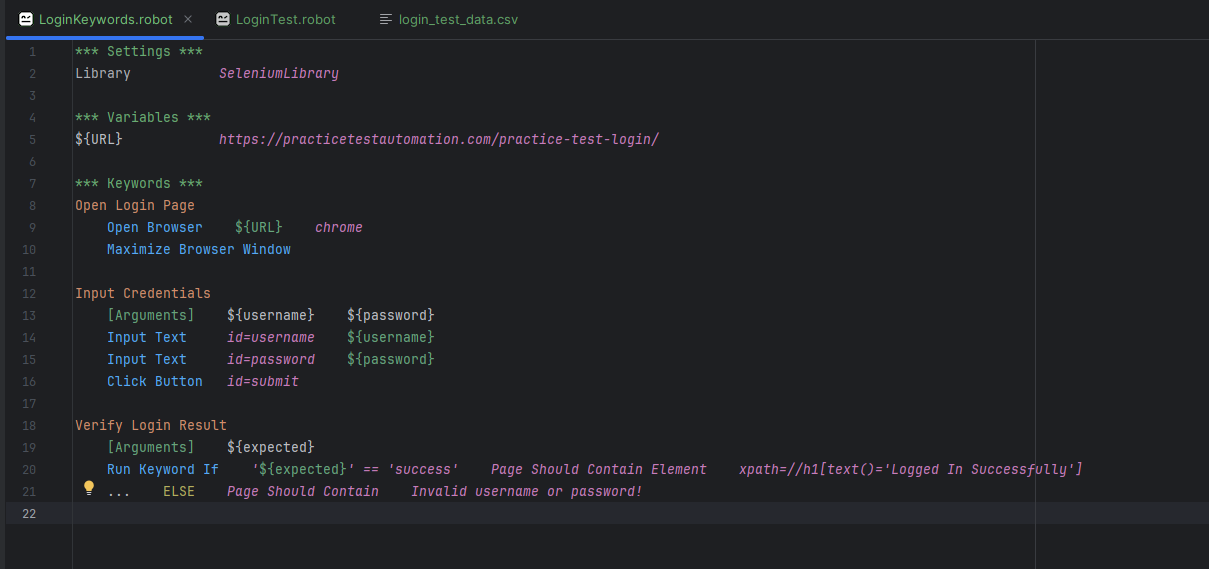
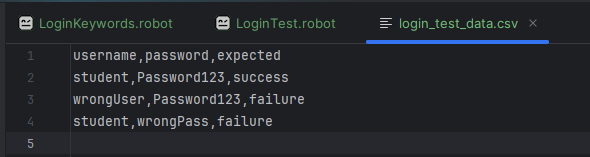
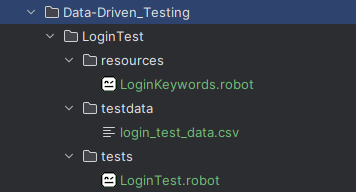
Description: Test the login functionality for valid and invalid credentials.

Test Cases (Data-Driven)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TC ID | Test Case Description | Username | Password | Expected Result |
| TC001 | Valid Username and Password | student | Password123 | Login Successful – redirected to dashboard |
| TC002 | Invalid username and valid password | Wrong user | Password123 | Error message: “Your username is invalid” |
| TC003 | Invalid username and valid password | student | Wrong Pass | Error message: ”Your Password is invalid” |
| TC004 | Empty username and password |  |  | Error message or validation required |

Data-Driven Script

#pip install robotframework-datadriver



# 5. Robotic Process Automation (RPA)

Robot Process Automation testing automates repetitive testing tasks that mimic human interaction with a system.

What is mimic human interaction?

RPA bots replicate what a human would do on a computer like clicking buttons, typing into forms, and reading content from screens, copying data, downloading files, etc...

## 🔄 Summary: Human Actions RPA Mimics

| **Human Action** | **RPA Keyword Example** |
| --- | --- |
| Open browser | Open Browser |
| Click | Click Element, Click Button |
| Type | Input Text, Input Password |
| Read screen | Get Text, Page Should Contain |
| Download | Click Link, Wait For Download |
| Send emails | Custom script or library |
| Excel work | Open Workbook, Write To Cell |

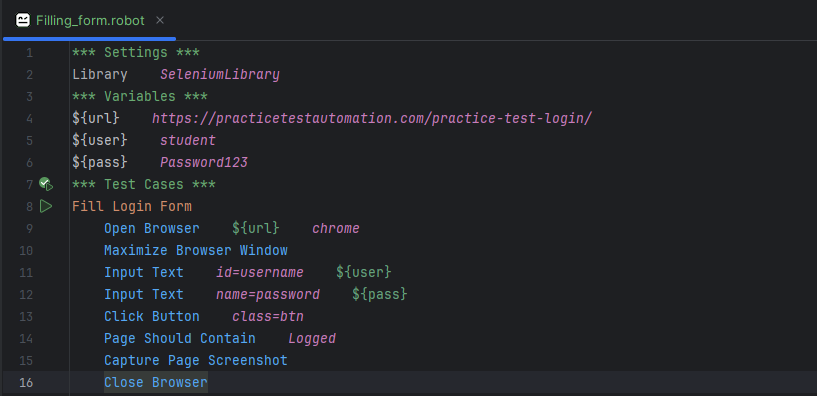
Robotic Process Automation (RPA) is a technology that automates repetitive tasks by mimicking human actions on digital systems.

* Filling Forms
* Scraping website
* Copying data from excel to web forms
* Sending automated emails

Why Robot Framework for RPA?

* Open source
* Easy to learn (keyword-driven syntax)
* Integrates with many libraries (web, files, Excel, database, APIs)
* Great for both testing and RPA automation.

1. Filling Forms



This is normal code

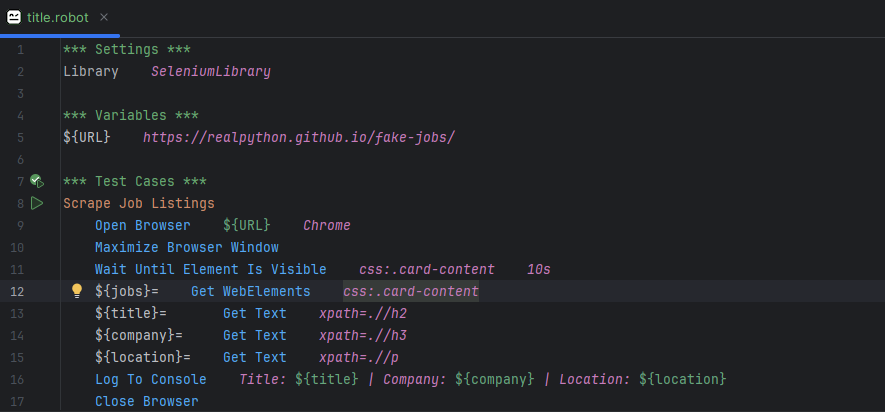
Where is RPA used in your scripts?

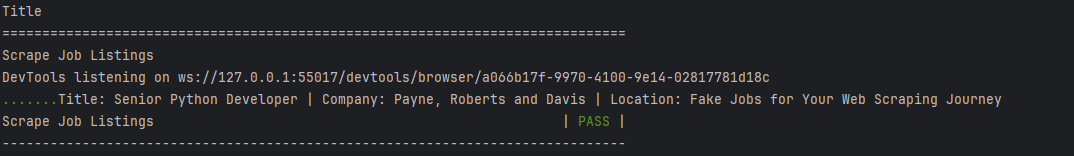
This scripts uses RPA through the seleniumLibrary to mimic human interactions with a web browser.

Step by Step: RPA Actions in your Scripts

| **Human Action (Manual)** | **RPA Simulated Action (Automated)** |
| --- | --- |
| You open Chrome and type in a website URL | Open Browser ${URL} Chrome |
| You type a username in a text box | Input Text id=username ${USER} |
| You type your password | Input Password id=password ${PASS} |
| You click a login button | Click Button id=submit |
| You check if the login worked | Page Should Contain Logged In Successfully |
| You take a screenshot | Capture Page Screenshot |
| You close the browser | Close Browser |

2. Scraping website





In your script, **RPA is used** to **automate the repetitive task** of:

* Opening the browser,
* Scraping specific data (job titles, companies, locations),
* Logging the information, and
* Closing the browser.

3. Copying data from excel to web forms

Automating the task of copying data from an Excel file and filling out web forms using RPA in robot framework.

1. SeleniumLibrary to interact with the web form

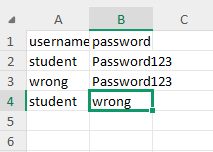
2. ExcelLibrary to read data from an Excel File.

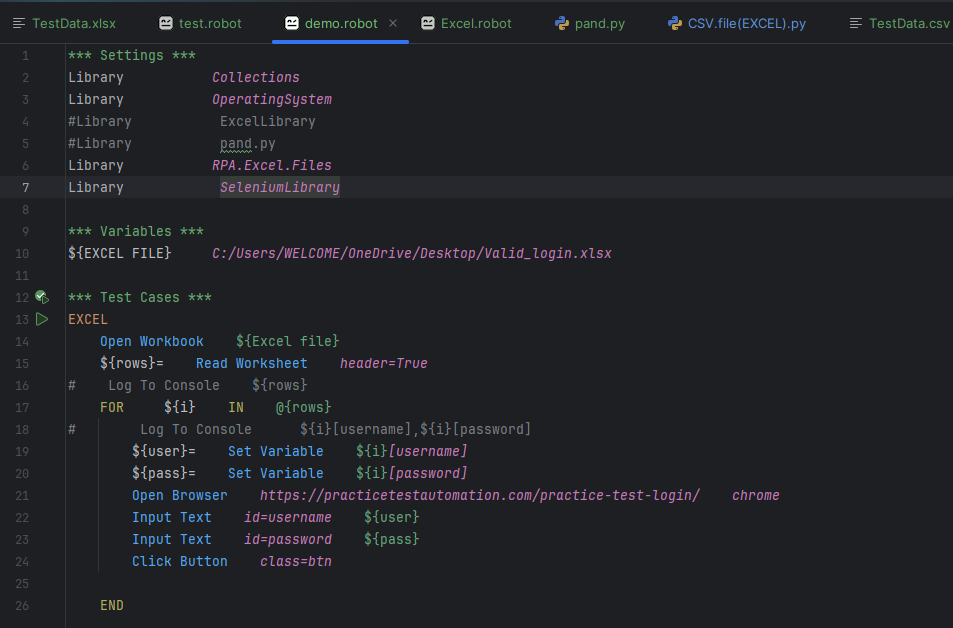
pip install robotframework

pip install robotframework-seleniumlibrary

pip install robotframework-excellibrary

## Excel File Test Data Collect work with Robot Framework

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