

A Project Report On

Software Testing and Quality Assurance (LP4)

CLASS: BE-1

GUIDED BY
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Title:

Create a small web-based application by selecting relevant system environment/platform and programming languages. Narrate concise Test Plan consisting features to be tested and bug taxonomy. Narrate scripts in order to perform regression tests. Identify the bugs using Selenium WebDriver and IDE and generate test reports encompassing exploratory testing

Problem Definition:

Perform Web testing and identify the bugs using Selenium WebDriver and IDE and generate test reports encompassing exploratory testing on a self developed web app.

Objective

Perform testing on a blogging site and write test cases.

Test Environment:

An Ubuntu 20.04 environment

Django 2.0

Selenium web-driver

Selenium IDE

Google Chrome

Theory:

Selenium:

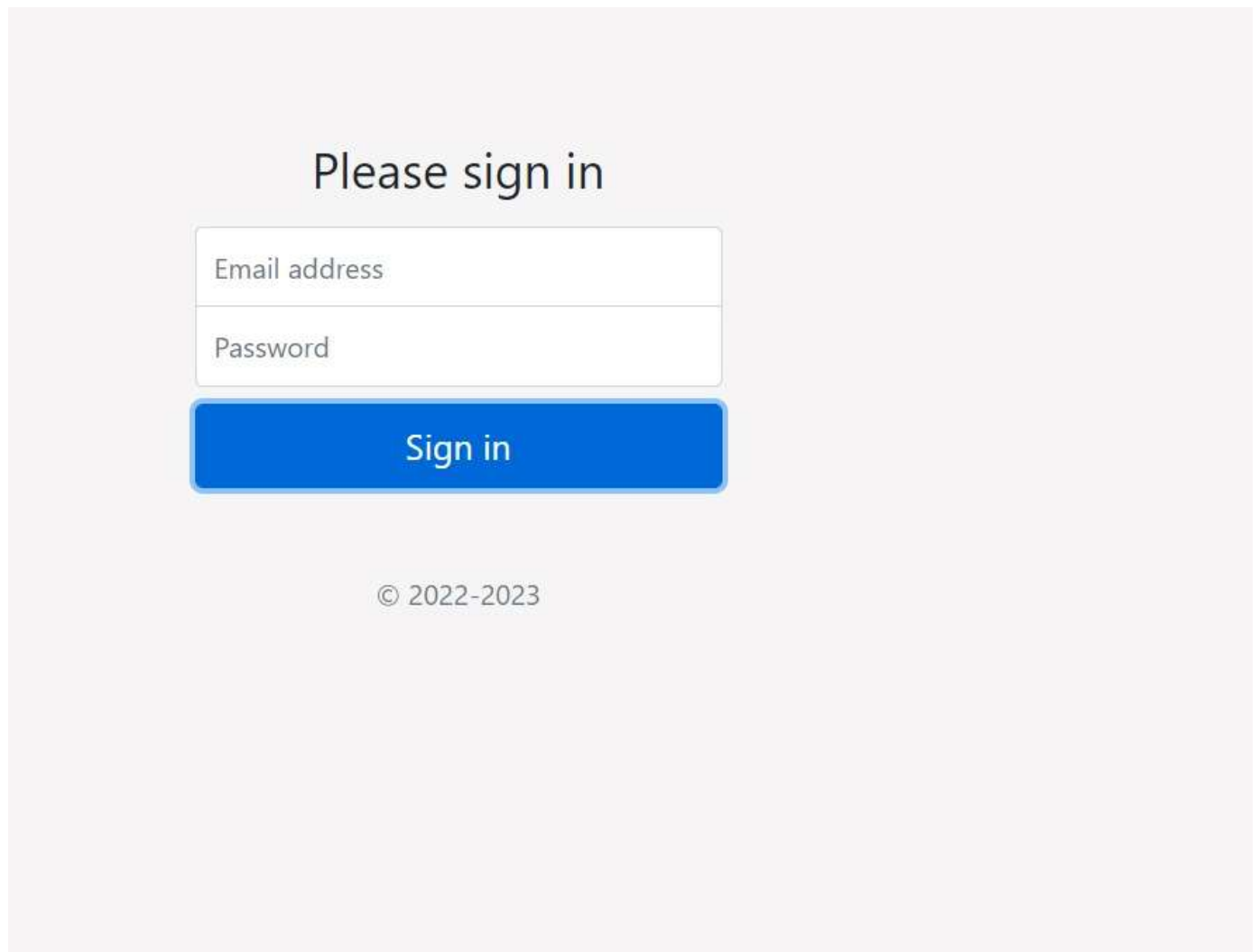
Selenium is a free (open source) automated testing suite for web applications across different browsers and platforms. Selenium is a suite of software tools to automate Web Browsers. It is an Open source suite of tools mainly used for Functional and Regression Test Automation. Selenium is a free (open source) automated testing suite for web applications across different browsers and platforms. It is quite similar to HP Quick Test Pro (QTP now UFT) only that Selenium focuses on automating web-based applications. Testing done using a Selenium tool is usually referred as Selenium Testing.

Selenium IDE:

Selenium IDE (Integrated Development Environment) is primarily a record/run tool that a test case developer uses to develop Selenium Test cases. Selenium IDE is an easy to use tool from the [Selenium Test Suite](#) and can even be used by someone new to developing automated test cases for their web applications. One does not require any special setup to get started with Selenium IDE. You just need to add the extension of your specific browser. Selenium IDE provides you with a GUI (Graphical User Interface) for easily recording your interactions with the website.

Selenium IDE allows a user or a test case developer to create the test cases and test suites and edit it later as per their requirements. The development environment also provides the capability of converting test cases to different programming languages, which makes it easier for the user and does not mandate the need for knowing a specific programming language.

Sample Screenshots of application

A sample screenshot of a web application's sign-in page. The page has a light gray background. At the top center, the text "Please sign in" is displayed in a dark gray font. Below this text is a white rectangular form with a thin gray border. The form contains two input fields: the top one is labeled "Email address" and the bottom one is labeled "Password". Below the form is a blue rectangular button with rounded corners and a thin blue border, containing the text "Sign in" in white. At the bottom center of the page, the copyright notice "© 2022-2023" is displayed in a small, dark gray font.

Please sign in

Email address

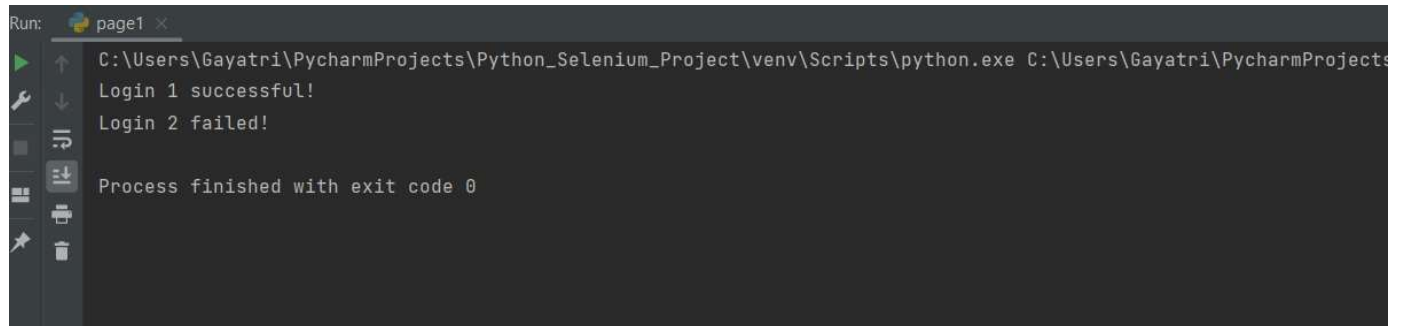
Password

Sign in

© 2022-2023

Output logs of sample tests

1. Login

A screenshot of a PyCharm Run console window. The window has a dark background with a light-colored border. On the left side, there is a vertical toolbar with icons for running, debugging, and other actions. The main area of the console displays the following text:

```
Run: page1 x
C:\Users\Gayatri\PycharmProjects\Python_Selenium_Project\venv\Scripts\python.exe C:\Users\Gayatri\PycharmProjects
Login 1 successful!
Login 2 failed!
Process finished with exit code 0
```

Conclusion :

Performed automation testing on a self developed blogging site and verified that no bugs or defects were found.