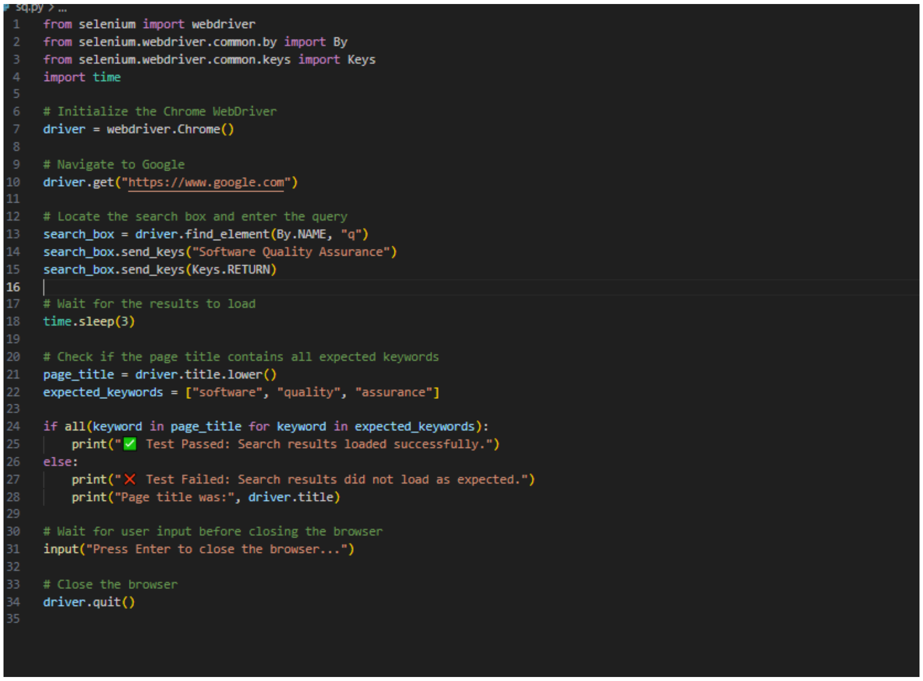
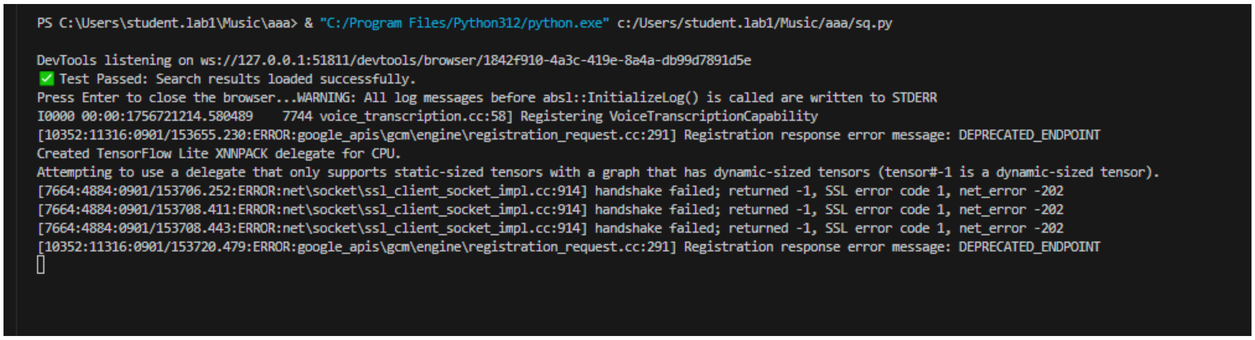
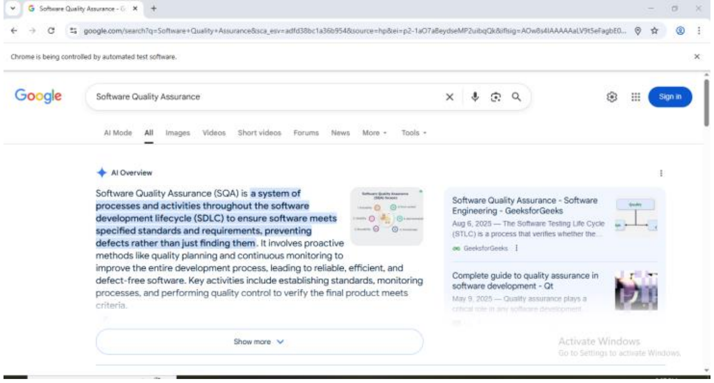
Practical 1: Google Search Test Objective: Verify Google search works automatically.



```python
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
import time

# Initialize the Chrome WebDriver
driver = webdriver.Chrome()

# Navigate to Google
driver.get("https://www.google.com")

# Locate the search box and enter the query
search_box = driver.find_element(By.NAME, "q")
search_box.send_keys("Software Quality Assurance")
search_box.send_keys(Keys.RETURN)

# Wait for the results to load
time.sleep(3)

# Check if the page title contains all expected keywords
page_title = driver.title.lower()
expected_keywords = ["software", "quality", "assurance"]

if all(keyword in page_title for keyword in expected_keywords):
    print("✅ Test Passed: Search results loaded successfully.")
else:
    print("❌ Test Failed: Search results did not load as expected.")
    print("Page title was:", driver.title)

# Wait for user input before closing the browser
input("Press Enter to close the browser...")

# Close the browser
driver.quit()
```



```
PS C:\Users\student.lab1\Music\aaa> & "C:/Program Files/Python312/python.exe" c:/Users/student.lab1/Music/aaa/sq.py

DevTools listening on ws://127.0.0.1:51811/devtools/browser/1842f910-4a3c-419e-8a4a-db99d7891d5e
✅ Test Passed: Search results loaded successfully.
Press Enter to close the browser...WARNING: All log messages before absl::InitializeLog() is called are written to STDERR
I0000 00:00:1756721214.580489    7744 voice_transcription.cc:58] Registering VoiceTranscriptionCapability
[10352:11316:0901/153655.230:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: DEPRECATED_ENDPOINT
Created TensorFlow Lite XNNPACK delegate for CPU.
Attempting to use a delegate that only supports static-sized tensors with a graph that has dynamic-sized tensors (tensor#-1 is a dynamic-sized tensor).
[7664:4884:0901/153706.252:ERROR:net\socket\ssl_client_socket_impl.cc:914] handshake failed; returned -1, SSL error code 1, net_error -202
[7664:4884:0901/153708.411:ERROR:net\socket\ssl_client_socket_impl.cc:914] handshake failed; returned -1, SSL error code 1, net_error -202
[7664:4884:0901/153708.443:ERROR:net\socket\ssl_client_socket_impl.cc:914] handshake failed; returned -1, SSL error code 1, net_error -202
[10352:11316:0901/153720.479:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: DEPRECATED_ENDPOINT
▯
```



Software Quality Assurance - G
google.com/search?q=Software+Quality+Assurance&sca_esv=adfd38bc1a36b954&source=hp&ei=p2-1aO7aBeydseMP2uibqQk&iflsig=AOw8s4IAAAAAaLV9t5eFagbE0...
Google
Software Quality Assurance
Sign in
AI Mode
All
Images
Videos
Short videos
Forums
News
More
Tools
AI Overview
Show more
Activate Windows
Go to Settings to activate Windows.

Chrome is being controlled by automated test software.

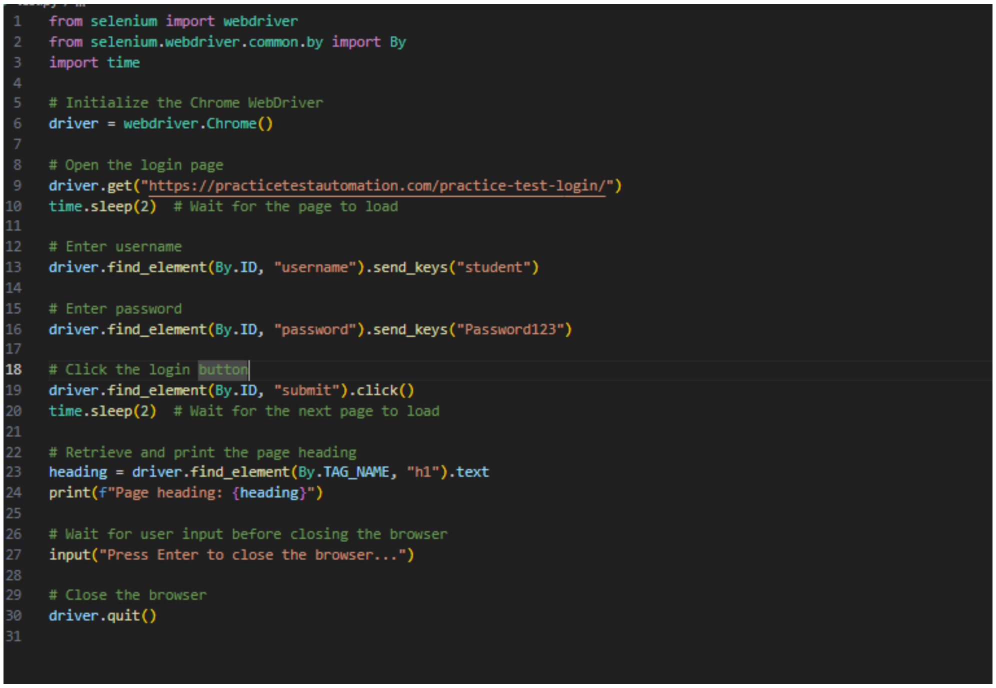
Software Quality Assurance (SQA) is a system of processes and activities throughout the software development lifecycle (SDLC) to ensure software meets specified standards and requirements, preventing defects rather than just finding them. It involves proactive methods like quality planning and continuous monitoring to improve the entire development process, leading to reliable, efficient, and defect-free software. Key activities include establishing standards, monitoring processes, and performing quality control to verify the final product meets criteria.

Software Quality Assurance - Software Engineering - GeeksforGeeks
Aug 6, 2025 — The Software Testing Life Cycle (STLC) is a process that verifies whether the ...
GeeksforGeeks

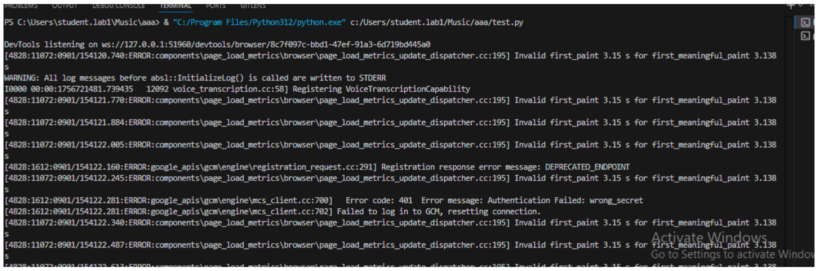
Complete guide to quality assurance in software development - Qt
May 9, 2025 — Quality assurance plays a critical role in any software development ...

Practical 2: Login Function Test Example: https://practicetestautomation.com/practice-test-login/

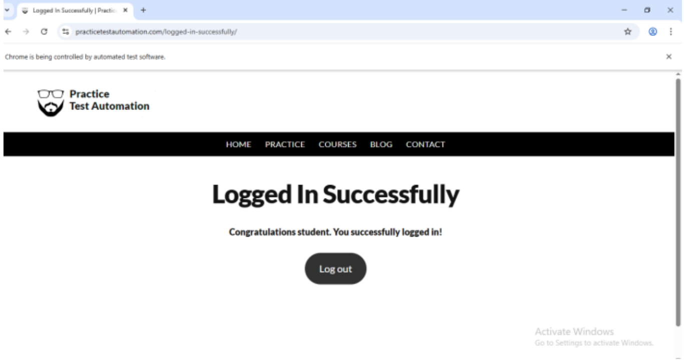
Username: student Password: Password123



```python
from selenium import webdriver
from selenium.webdriver.common.by import By
import time

# Initialize the Chrome WebDriver
driver = webdriver.Chrome()

# Open the login page
driver.get("https://practicetestautomation.com/practice-test-login/")
time.sleep(2)  # Wait for the page to load

# Enter username
driver.find_element(By.ID, "username").send_keys("student")

# Enter password
driver.find_element(By.ID, "password").send_keys("Password123")

# Click the login button
driver.find_element(By.ID, "submit").click()
time.sleep(2)  # Wait for the next page to load

# Retrieve and print the page heading
heading = driver.find_element(By.TAG_NAME, "h1").text
print(f"Page heading: {heading}")

# Wait for user input before closing the browser
input("Press Enter to close the browser...")

# Close the browser
driver.quit()

```



```
PS C:\Users\student.lab1\Music\aaa> & "C:/Program Files/Python312/python.exe" c:/Users/student.lab1/Music/aaa/test.py

DevTools listening on ws://127.0.0.1:51960/devtools/browser/8c7f097c-bbd1-47ef-91a3-6d719bd445a0
[4828:11072:0901/154120.740:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
WARNING: All log messages before absl::InitializeLog() is called are written to STDERR
I0000 00:00:1756721481.739435   12092 voice_transcription.cc:58] Registering VoiceTranscriptionCapability
[4828:11072:0901/154121.770:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
[4828:11072:0901/154121.884:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
[4828:11072:0901/154122.005:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
[4828:1612:0901/154122.160:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: DEPRECATED_ENDPOINT
[4828:11072:0901/154122.245:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
[4828:1612:0901/154122.281:ERROR:google_apis\gcm\engine\mcs_client.cc:700]   Error code: 401  Error message: Authentication Failed: wrong_secret
[4828:1612:0901/154122.281:ERROR:google_apis\gcm\engine\mcs_client.cc:702] Failed to log in to GCM, resetting connection.
[4828:11072:0901/154122.340:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
[4828:11072:0901/154122.487:ERROR:components\page_load_metrics\browser\page_load_metrics_update_dispatcher.cc:195] Invalid first_paint 3.15 s for first_meaningful_paint 3.138
s
```



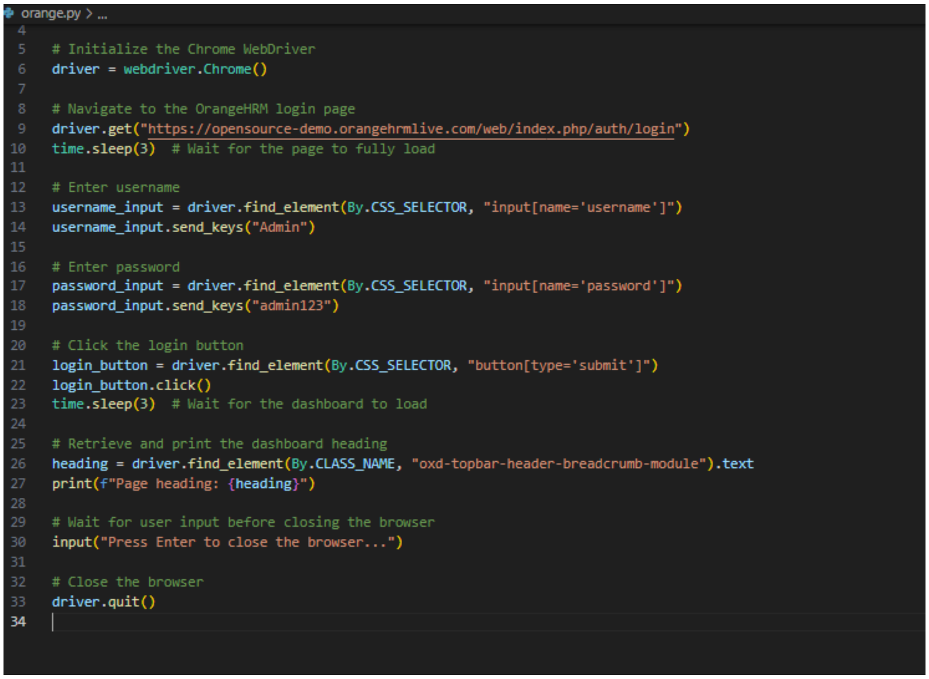
Logged In Successfully | Practic
practicetestautomation.com/logged-in-successfully/
Practice
Test Automation
HOME
PRACTICE
COURSES
BLOG
CONTACT
Log out

Chrome is being controlled by automated test software.

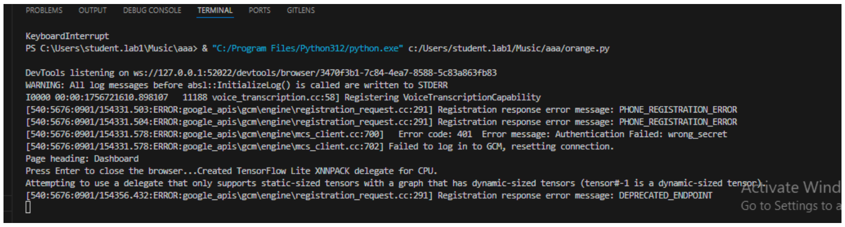
Logged In Successfully

Congratulations student. You successfully logged in!

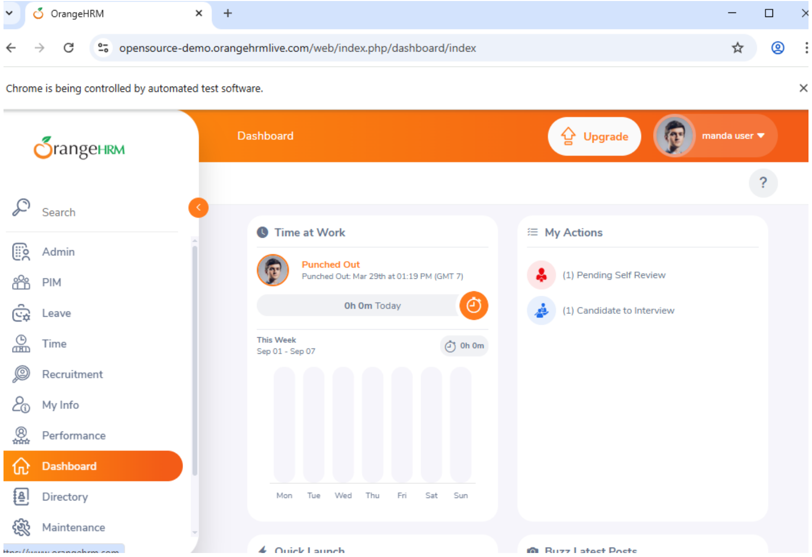
Task 03-Adjust this above-mentioned code to the orange HRM login function



```python

# Initialize the Chrome WebDriver
driver = webdriver.Chrome()

# Navigate to the OrangeHRM login page
driver.get("https://opensource-demo.orangehrmlive.com/web/index.php/auth/login")
time.sleep(3)  # Wait for the page to fully load

# Enter username
username_input = driver.find_element(By.CSS_SELECTOR, "input[name='username']")
username_input.send_keys("Admin")

# Enter password
password_input = driver.find_element(By.CSS_SELECTOR, "input[name='password']")
password_input.send_keys("admin123")

# Click the login button
login_button = driver.find_element(By.CSS_SELECTOR, "button[type='submit']")
login_button.click()
time.sleep(3)  # Wait for the dashboard to load

# Retrieve and print the dashboard heading
heading = driver.find_element(By.CLASS_NAME, "oxd-topbar-header-breadcrumb-module").text
print(f"Page heading: {heading}")

# Wait for user input before closing the browser
input("Press Enter to close the browser...")

# Close the browser
driver.quit()

```



```
KeyboardInterrupt
PS C:\Users\student.lab1\Music\aaa> & "C:/Program Files/Python312/python.exe" c:/Users/student.lab1/Music/aaa/orange.py

DevTools listening on ws://127.0.0.1:52022/devtools/browser/3470f3b1-7c84-4ea7-8588-5c83a863fb83
WARNING: All log messages before absl::InitializeLog() is called are written to STDERR
I0000 00:00:1756721610.898107   11188 voice_transcription.cc:58] Registering VoiceTranscriptionCapability
[540:5676:0901/154331.503:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: PHONE_REGISTRATION_ERROR
[540:5676:0901/154331.504:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: PHONE_REGISTRATION_ERROR
[540:5676:0901/154331.578:ERROR:google_apis\gcm\engine\mcs_client.cc:700]   Error code: 401  Error message: Authentication Failed: wrong_secret
[540:5676:0901/154331.578:ERROR:google_apis\gcm\engine\mcs_client.cc:702] Failed to log in to GCM, resetting connection.
Page heading: Dashboard
Press Enter to close the browser...Created TensorFlow Lite XNNPACK delegate for CPU.
Attempting to use a delegate that only supports static-sized tensors with a graph that has dynamic-sized tensors (tensor#-1 is a dynamic-sized tensor).
[540:5676:0901/154356.432:ERROR:google_apis\gcm\engine\registration_request.cc:291] Registration response error message: DEPRECATED_ENDPOINT
```


OrangeHRM
opensource-demo.orangehrmlive.com/web/index.php/dashboard/index
Chrome is being controlled by automated test software.
OrangeHRM
Dashboard
Upgrade
manda user
?
Search
Admin
PIM
Leave
Time
Recruitment
My Info
Performance
Dashboard
Directory
Maintenance
Time at Work
Punched Out
Punched Out: Mar 29th at 01:19 PM (GMT 7)
0h 0m Today
This Week
Sep 01 - Sep 07
0h 0m
Mon
Tue
Wed
Thu
Fri
Sat
Sun
My Actions
(1) Pending Self Review
(1) Candidate to Interview
Quick Launch
Buzz Latest Posts