QA Automation Coding Challenge

To automate the Web Application. I chose the "Kayak" web application. The coding language used is JAVA selenium for Web Automation. The TestNG framework written for executing the test cases and MAVEN used for automatically importing JARS in the code.

The Web UI test cases those are automated are elaborated below:

1. Login into web application:
   a. In this the application is launched
   b. Google sign-on mechanism is used for logging into the application
   c. Multiple windows are handled.
   d. Username and password is entered
   e. The windows switch to frame to login successfully in the application.

2. Enter the destination, start date and end date of the travel and search the flights
   a. Locators are used to identify the location and keyboard keys are used to search the destination
   b. Calendar dates are used to find the start and end date. To perform the double-click actions class is used.
   c. Search is performed and list corresponding to all the flights are shown.

3. The flights are searched based on two adult's travelers.
   a. Drop down is selected specific to adult count based on round trip
   b. Increment button is used to increase the number of adults
   c. Search button is clicked to view the data corresponding to number of adults.
   d. The incremented price and per person price both are shown during the search

4. Validate the response when one-way trip with one-check in bag is selected
   a. Select the one-way from the drop down for the trip type.
   b. Select one check-in bag option
   c. Search the result
   d. All flights corresponding to one-way with a check-in bag are displayed.

5. Validate the user profile details
   a. Click on the user profile
   b. Select the account information option
   c. Select the "Account" details from the information
   d. Scroll down to the email label to retrieve the user information.
   e. Email details are validated with the expected email address.

6. Logout from the application
    a. Select the profile option visible on the application
    b. Click on Sign out button
    c. The user logged off successfully.

*Note: The output is achieved in the form of console logs as well as the screenshot. It has been achieved by running the "automatedAllTestCases.java" class available in the source code.

Console Log Output for Execution of All Test Cases:

Starting ChromeDriver 108.0.5359.71 (1e0e3868ee06e91ad636a874420e3ca3ae3756ac-refs/branch-heads/5359@{#1016}) on port 34807
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1674618303.048][WARNING]: This version of ChromeDriver has not been tested with Chrome version 109.
Jan 24, 2023 9:45:03 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 109, so returning the closest version found: 108
Kayak Application Opened Successfully
*****Begin of Test Case 1*******
Check the Login Functionality
Login to the Application is Successful

*****Begin of Test Case 2*******
Entered the Location, From and To place, Search the flights
List of Flights are displayed successfully

*****Begin of Test Case 3*******
Increase the number of adults to 2 from dropdown and search the results for the same
Flights shown based on two adults selected from Dropdown
*****Begin of Test Case 4*******
Navigate back to Home Page, selected one traveller with one checkin bag
One-way flights are shown

Flights based on 1 carry-on bag are shown
Flights based on selection has been shown successfully

*****Begin of Test Case 5*******
Navigate back and go to profile details and retrieve user email
Scroll to view the user account info
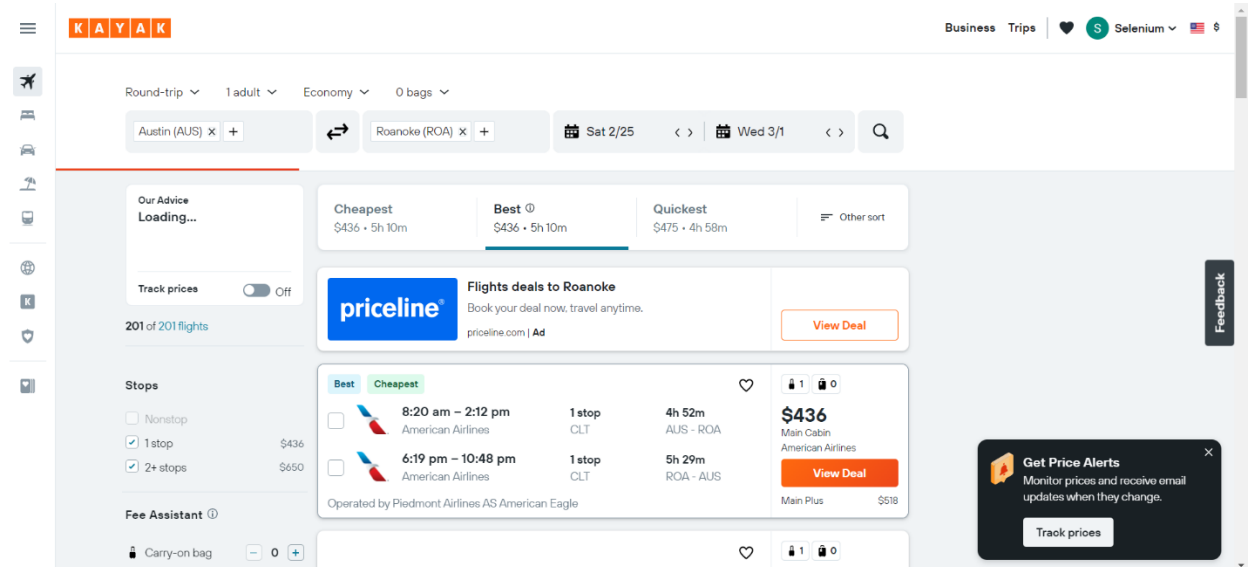Current Profile of kayak is of seleniumapp07@gmail.com

*****Begin of Test Case 6*******
Logout from the current account
Logout from the account successfully

Screenshot for the Output of All the Test cases:

1. **Login Successful into the Web Application:**
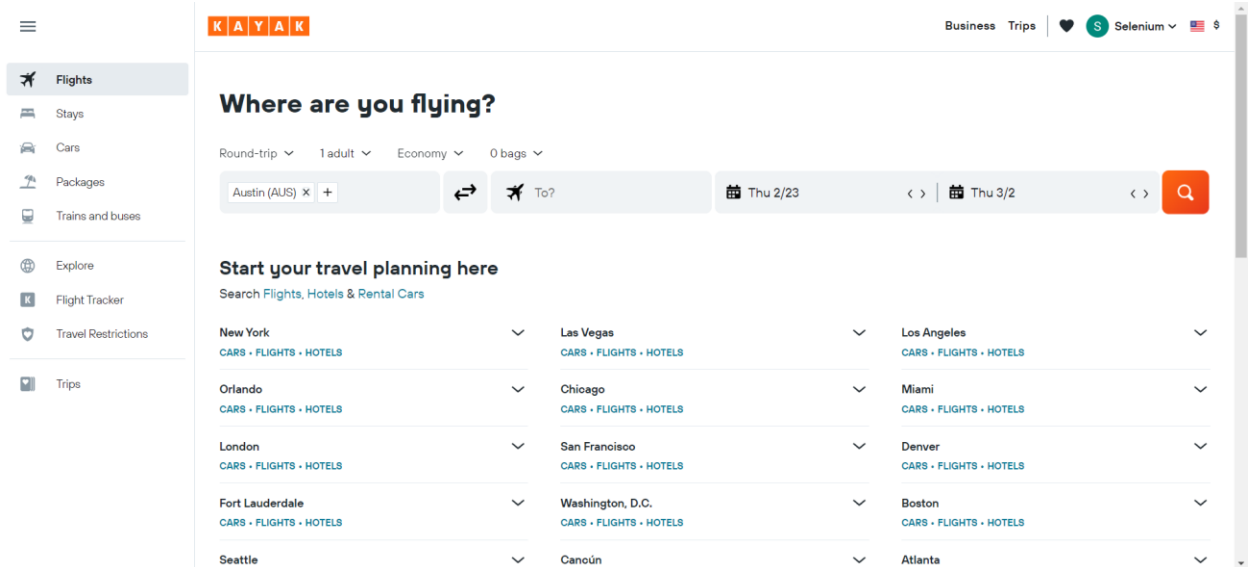
2. **List of flights shown based on start and end date**

3. The data shown based on two travelers

4. The drop-down values show one-way and 1 carry on bag and flights shown based on it

5. The profile details and accounts are validated by retrieving the email
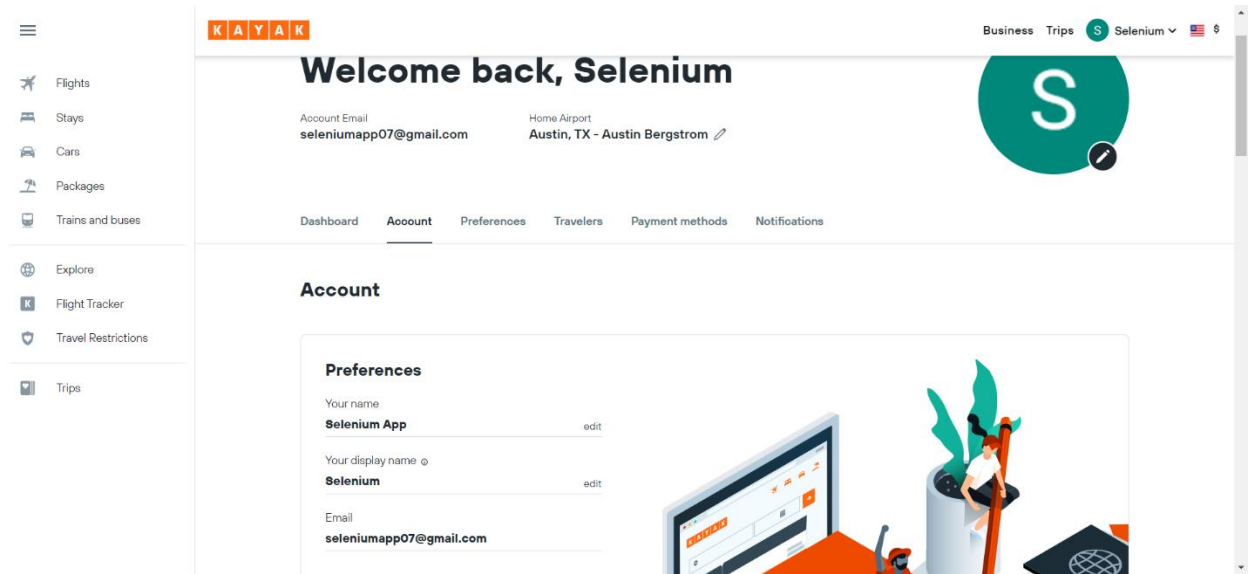
6. User logged out from the application successfully
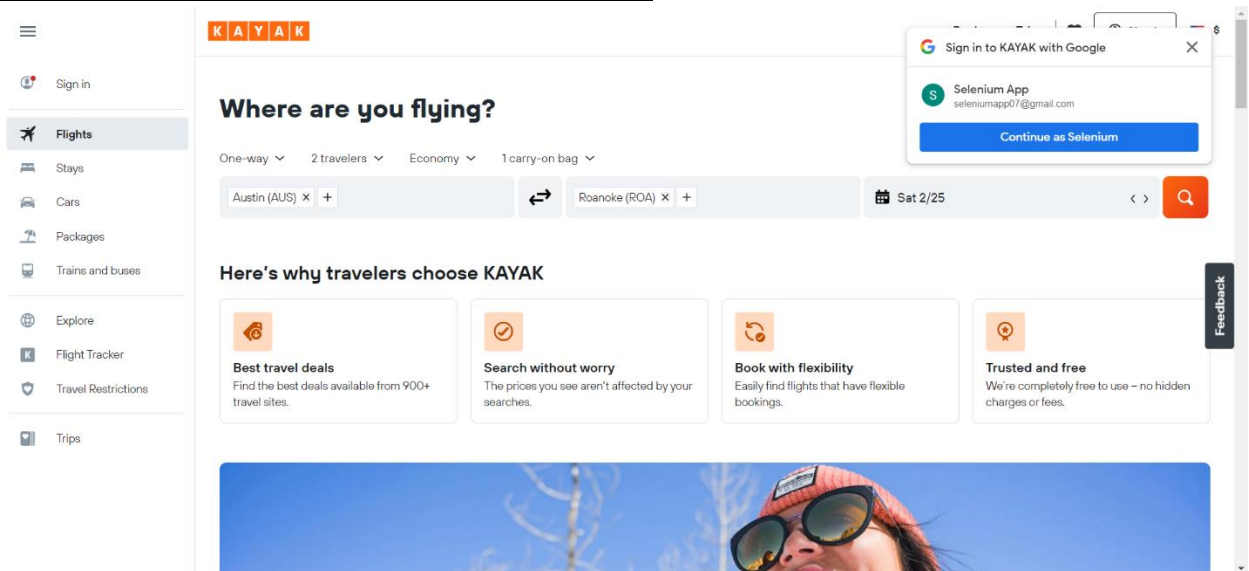
After this execution, the test cases are ran using the TestNG Framework. In this two new test cases and two from above are used in order to incorporate the TestNG usage in the web application automation. The console output as well as report are shown below:

Console Log Output After the execution for TestNG Test Cases

[RemoteTestNG] detected TestNG version 7.7.1
Starting ChromeDriver 108.0.5359.71 (1e0e3868ee06e91ad636a874420e3ca3ae3756ac-refs/branch-heads/5359@{#1016}) on port 14847
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1674615131.992][WARNING]: This version of ChromeDriver has not been tested with Chrome version 109.
Jan 24, 2023 8:52:12 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 109, so returning the closest version found: 108
Starting ChromeDriver 108.0.5359.71 (1e0e3868ee06e91ad636a874420e3ca3ae3756ac-refs/branch-heads/5359@{#1016}) on port 36531
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1674615140.035][WARNING]: This version of ChromeDriver has not been tested with Chrome version 109.
Jan 24, 2023 8:52:20 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 109, so returning the closest version found: 108
Title of the page is : Search Flights, Hotels & Rental Cars | KAYAK
Starting ChromeDriver 108.0.5359.71 (1e0e3868ee06e91ad636a874420e3ca3ae3756ac-refs/branch-heads/5359@{#1016}) on port 36068
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1674615144.259][WARNING]: This version of ChromeDriver has not been tested with Chrome version 109.
Jan 24, 2023 8:52:24 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 109, so returning the closest version found: 108
*****Begin of Test Case 1*******
Check the Login Functionality
Login to the Application is Successful
Starting ChromeDriver 108.0.5359.71 (1e0e3868ee06e91ad636a874420e3ca3ae3756ac-refs/branch-heads/5359@{#1016}) on port 36869
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1674615161.256][WARNING]: This version of ChromeDriver has not been tested with Chrome version 109.
Jan 24, 2023 8:52:41 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find an exact match for CDP version 109, so returning the closest version found: 108

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*****Begin of Test Case 2*******
Entered the Location, From and To place, Search the flights
List of Flights are displayed successfully

PASSED: TestNGUsingTestCases.seggregatedAppTest.verifyDropdownList
PASSED: TestNGUsingTestCases.seggregatedAppTest.loginApp
PASSED: TestNGUsingTestCases.seggregatedAppTest.verifyTitlePage
PASSED: TestNGUsingTestCases.seggregatedAppTest.flightSearchCalendarBased

===============================================
    Default test
    Tests run: 4, Failures: 0, Skips: 0
===============================================


===============================================
Default suite
Total tests run: 4, Passes: 4, Failures: 0, Skips: 0
===============================================
```

The Report generated after the execution of the test cases are displayed below: