STIRLING EDUCATION

IT 303 – Software Verification, Validation and Testing

TESTING DOCUMENTATION

PROJECT NAME

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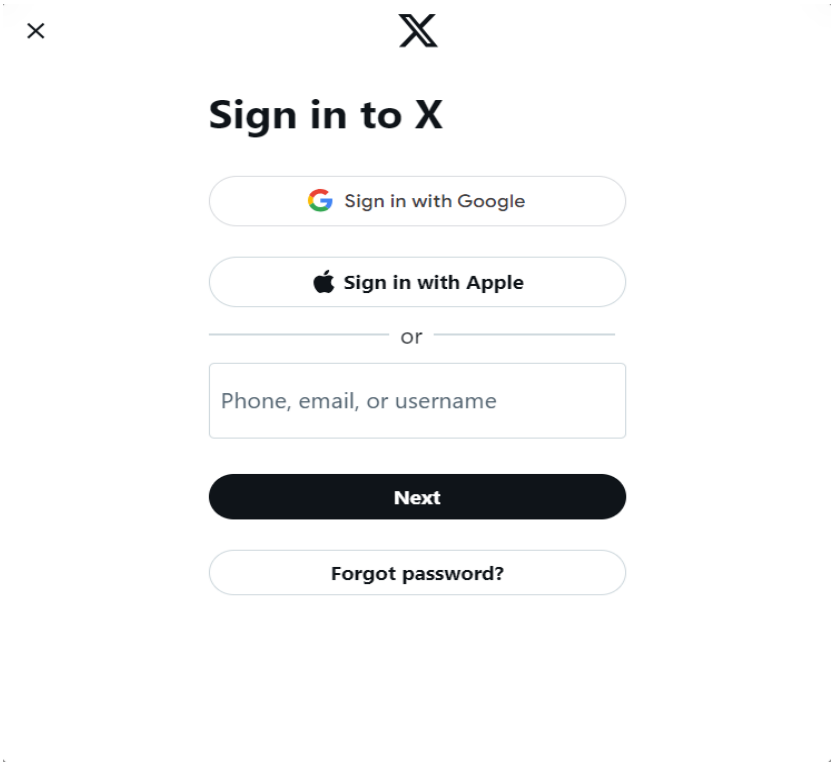
1. Introduction

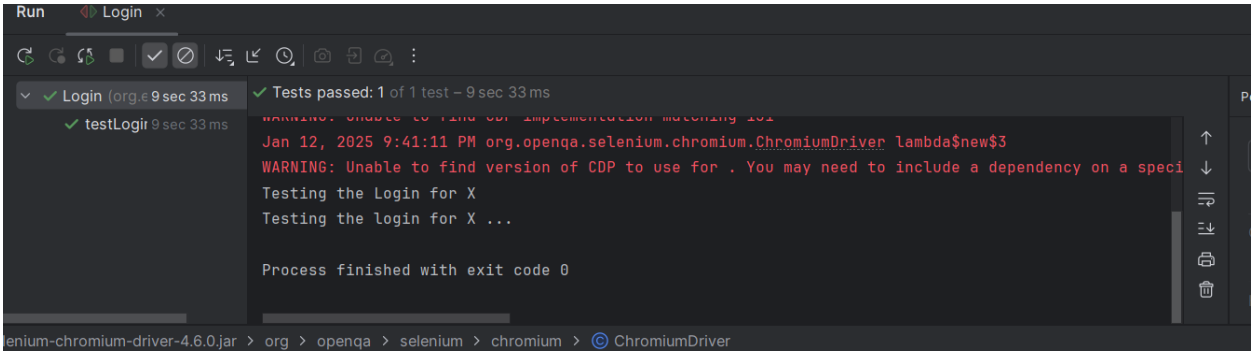
1.1. About the Project

This project focuses on testing the functionalities of X (fka. Twitter). It is the social media known for the short posts (tweets) and interactions with other people. The testing focused on the user operations, including login, profile updates, interaction with other users and managing posts. The tests ensures that those functions work as expected and the user can use them smoothly.

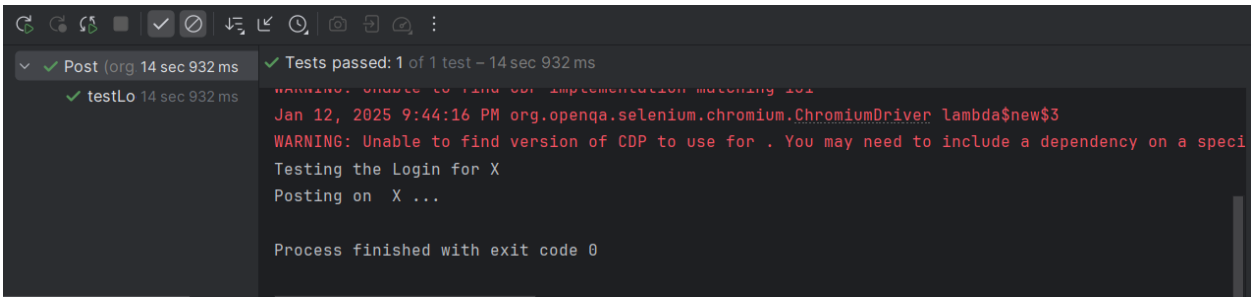
1.2. Project Functionalities and Screenshots

1. Login screen

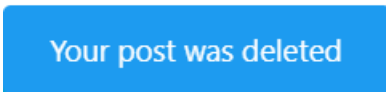


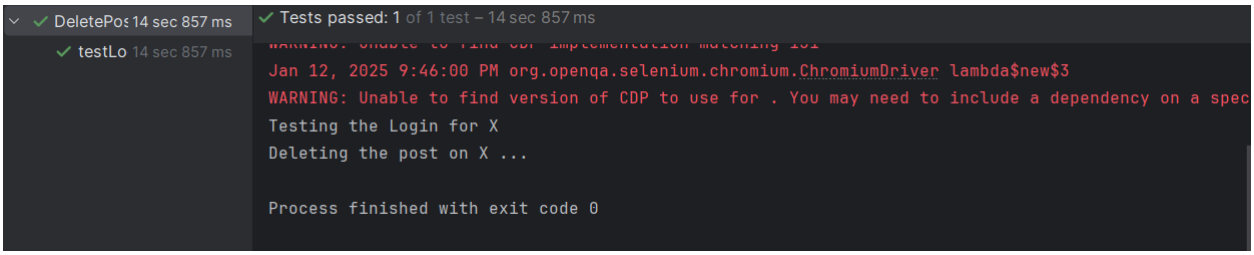


2. Post

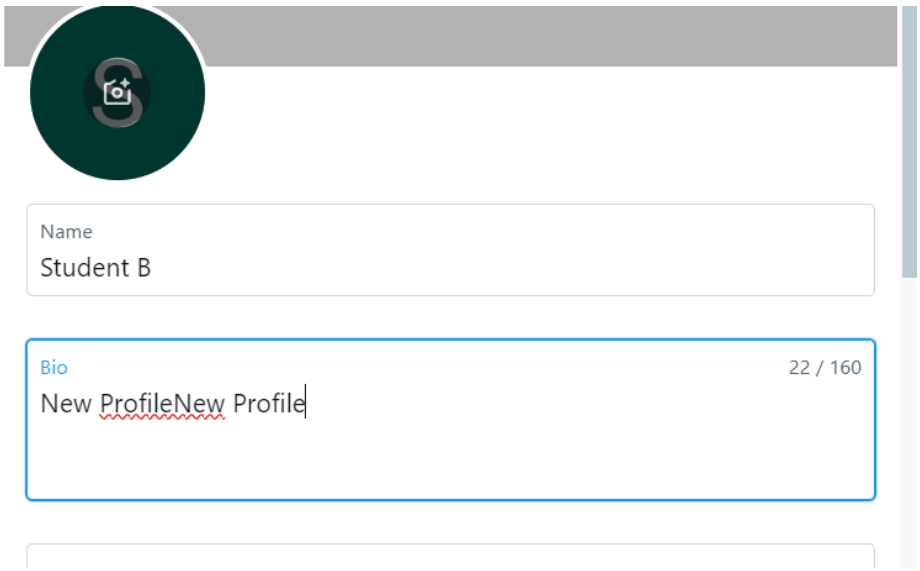


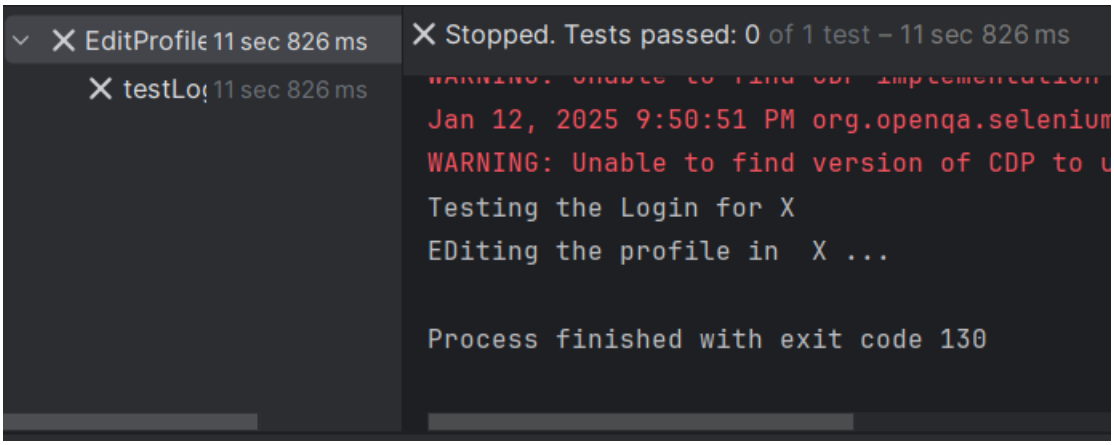
3. Delete Post



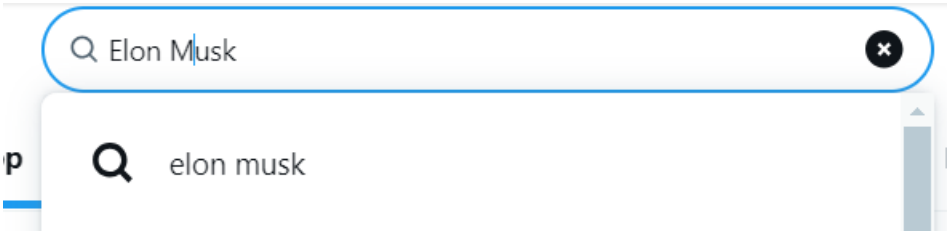


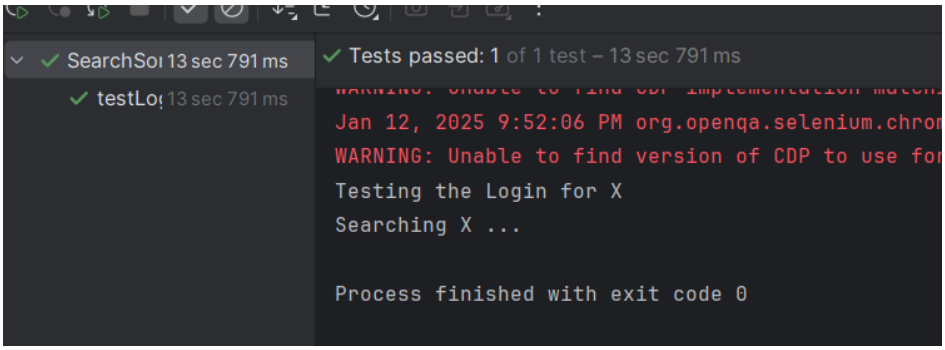
4. Edit profile


Name
Student B
Bio
22 / 160
New ProfileNew Profile

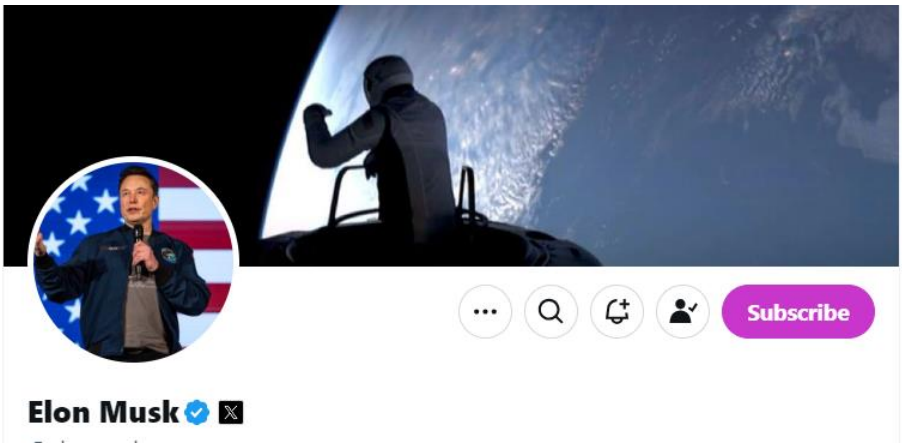

EditProfile 11 sec 826 ms
testLo 11 sec 826 ms
Stopped. Tests passed: 0 of 1 test – 11 sec 826 ms
Jan 12, 2025 9:50:51 PM org.openqa.selenium
WARNING: Unable to find version of CDP to
Testing the Login for X
EDiting the profile in X ...
Process finished with exit code 130

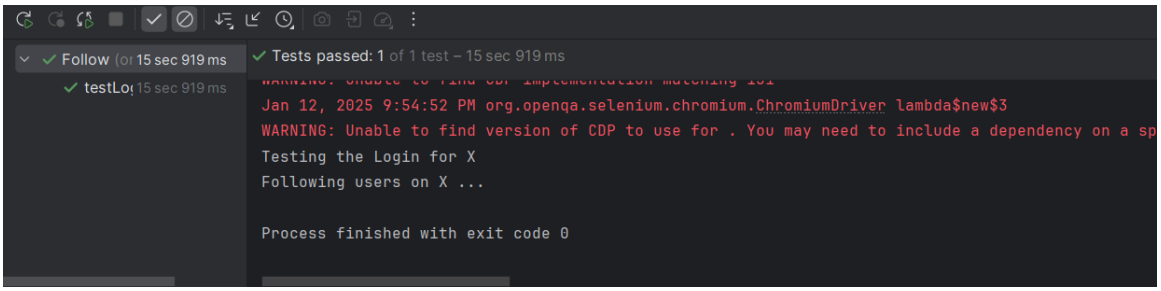
5. Search


Elon Musk
elon musk

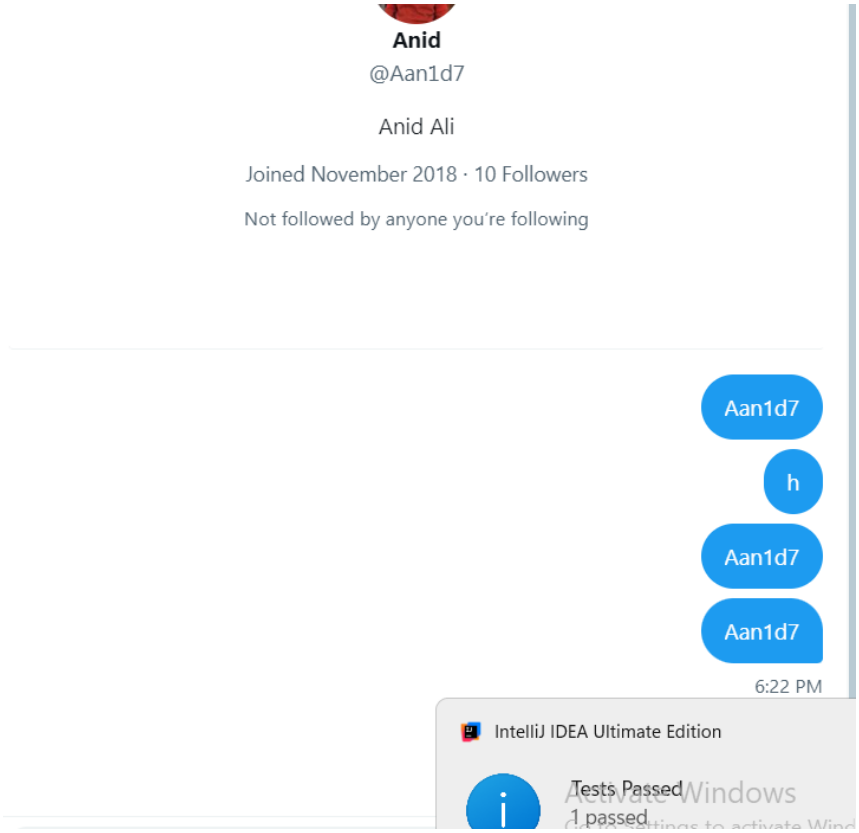

SearchSo 13 sec 791 ms
testLo 13 sec 791 ms
Tests passed: 1 of 1 test – 13 sec 791 ms
Jan 12, 2025 9:52:06 PM org.openqa.selenium.chro
WARNING: Unable to find version of CDP to use fo
Testing the Login for X
Searching X ...
Process finished with exit code 0

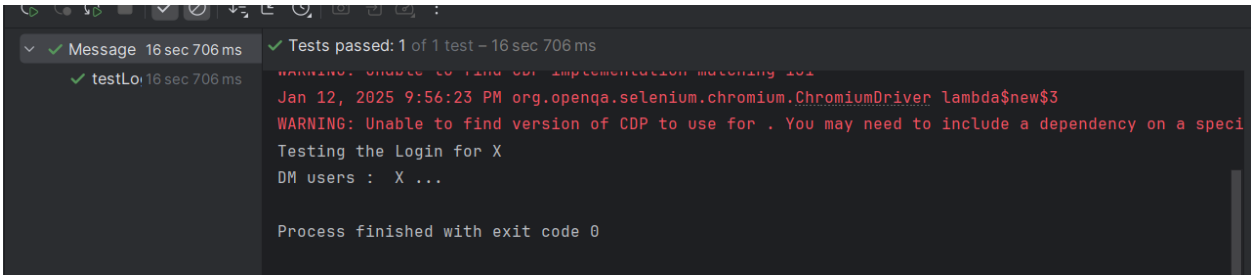
6. Follow


Subscribe
Elon Musk

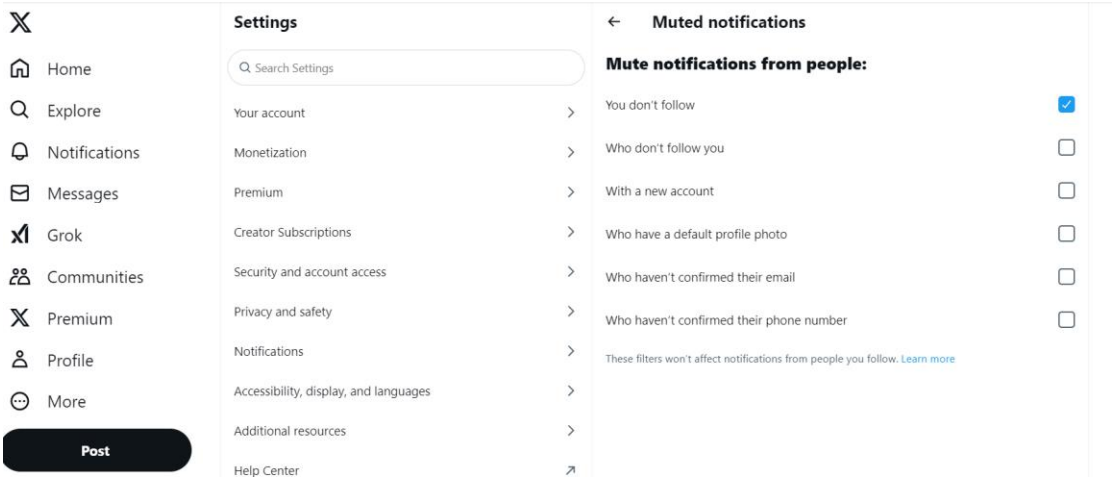

Follow (or 15 sec 919 ms
testLo 15 sec 919 ms
Tests passed: 1 of 1 test – 15 sec 919 ms
Jan 12, 2025 9:54:52 PM org.openqa.selenium.chromium.ChromiumDriver lambdanew3
WARNING: Unable to find version of CDP to use for . You may need to include a dependency on a sp
Testing the Login for X
Following users on X ...
Process finished with exit code 0

7. DM



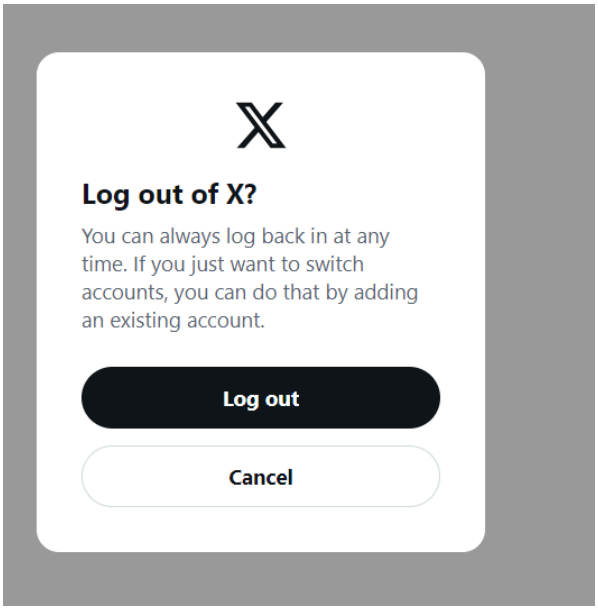


8. Mute notification



9. Block user

10. Log out



2. Test Plan

2.1. Scope

I focused on testing key functionalities of X to ensure core features work as expected. The tests included:

1. **Login**: Verifying secure authentication.
2. **Posting**: Creating, deleting, and managing posts.
3. **Profile Updates**: Editing the bio and profile details.
4. **User Interactions**: Following, messaging, blocking, and muting users.
5. **Search**: Testing for accurate search results.
6. **Notifications**: Muting specific notifications.
7. **Logout**: Ensuring secure logouts.

2.2. Testing Environment and Tools

For testing of X I used :
1. Selenium;
2. Junit 5;
3. ChromeDriver;
4. Programming languages : Java.

3. Test Execution

3.1. Test Scenario Name

Test Name: Login on X				
Description: Login on X with valid credentials				
Pre-condition(s): We have to have an account on X already, so the test may work				
Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**

1. Open X 2. Located the “Login button” 3. Uses Google to login 4. Enters the credentials 5. First page of X	Valid credentials New Google account My phone number to verify	To run the test smoothly	Loged in	PASS

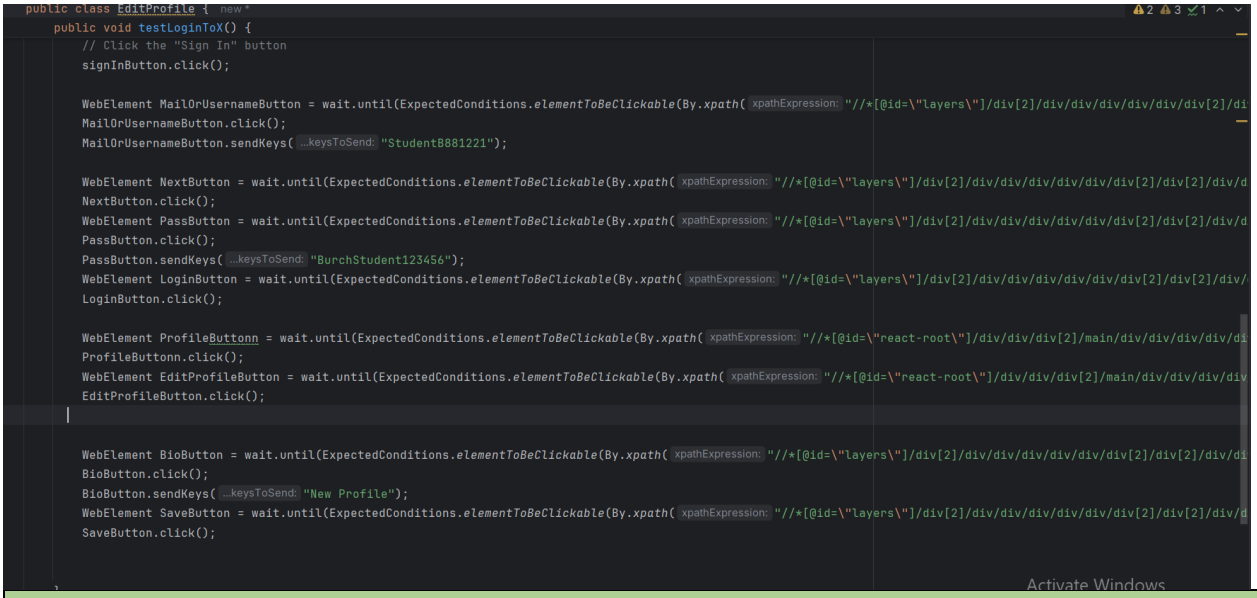
```java
public class Login {  new *
    private WebDriver webDriver;  5 usages
    private final String baseUrl = "https://x.com/?mx=2";  3 usages

    @BeforeEach  new *
    public void setup() {
        System.setProperty("webdriver.chrome.driver", "C:\\chromedriver-win64\\chromedriver.exe");

        ChromeOptions options = new ChromeOptions();
        options.addArguments("--start-maximized"); // Maximize the window
        options.addArguments("--disable-blink-features=AutomationControlled"); // Disable animations
        options.addArguments("--remote-allow-origins=*"); // Allow all origins

        webDriver = new ChromeDriver(options);
        webDriver.get(baseUrl);
        System.out.println("Testing the Login for X");
    }
```

```java
public class Login {  new *
    public void testLoginToX() {
        System.out.println("Testing the login for X ...");

        String currentUrl = webDriver.getCurrentUrl();
        if (!currentUrl.equals(baseUrl)) {
            webDriver.get(baseUrl);
        }

        // Wait for the "Sign In" button to be clickable
        WebDriverWait wait = new WebDriverWait(webDriver, Duration.ofSeconds(30));
        WebElement signInButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div[1]/div

        // Click the "Sign In" button
        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        PassButton.click();
        PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/di
        LoginButton.click();

    }
```

Test Name: EDIT PROFILE
Test for editing the BIO on X profiles

Pre-condition(s): Have a profile

Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**
1. Login to your account 2. Profile option 3. Choose BIO 4. Edit bio	Login to your account. Edit bio	I wanted to edit anything on the profile, this time I chose “bio”	Bio edited	PASS



```
public class EditProfile {
    public void testLoginToX() {
        // Click the "Sign In" button
        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/di
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys( ...keysToSend: "Student8881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/d
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/d
        PassButton.click();
        PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/
        LoginButton.click();

        WebElement ProfileButtonn = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/di
        ProfileButtonn.click();
        WebElement EditProfileButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div
        EditProfileButton.click();


        WebElement BioButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div/div[2]/div[2]/div/di
        BioButton.click();
        BioButton.sendKeys( ...keysToSend: "New Profile");
        WebElement SaveButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/d
        SaveButton.click();
```

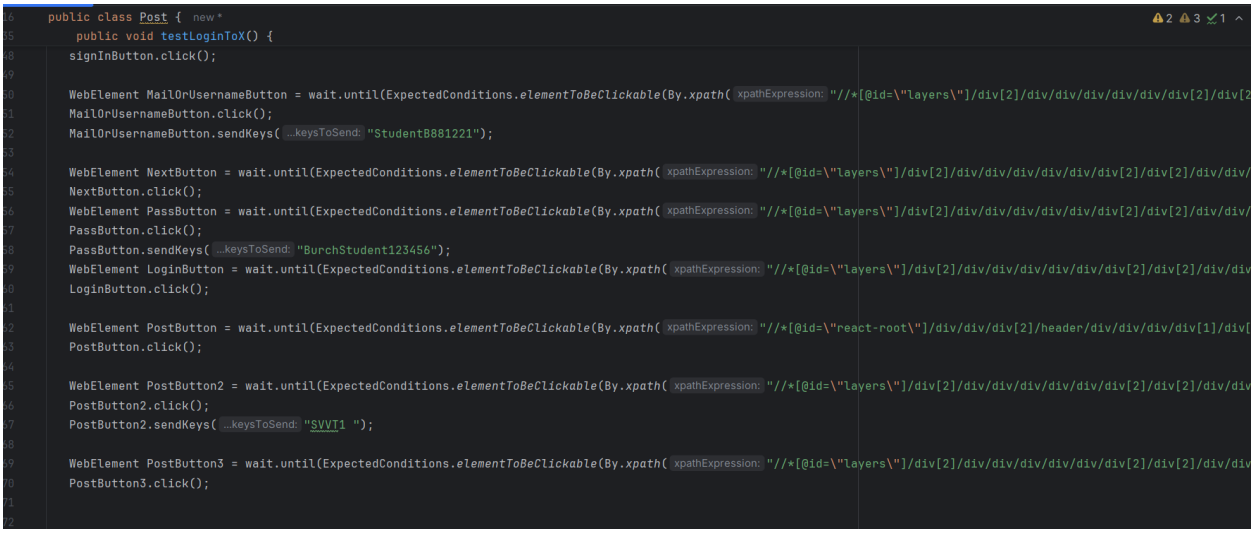
Activate Windows

Test Name: POSTING ON X

Description: Test used for posting on X

Pre-condition(s): Have an account

Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**
1. Login 2.Write a post 3. Post	**Account on X**	A random post	An expected post	PASS



```
public class Post {
    public void testLoginToX() {
        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys("StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/div/
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/div/
        PassButton.click();
        PassButton.sendKeys("BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/div
        LoginButton.click();

        WebElement PostButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/header/div/div/div/div[1]/div[
        PostButton.click();

        WebElement PostButton2 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/div
        PostButton2.click();
        PostButton2.sendKeys("SVVT1 ");

        WebElement PostButton3 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/div
        PostButton3.click();
```

Test Name: Search users on C				
Description: Testing the searching on X				
Pre-condition(s): We have to have an account on X already, and find an user				
Test Steps: 1. Login 2. Search 3. Open profile	**Test Data:** X account, both for me and the other user	**Expected Result:** To search someone	**Actual Result:** Searched the right user	**Status:** PASS

```
        WebDriverWait wait = new WebDriverWait(webDriver, Duration.ofSeconds(30));
        WebElement signInButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div[

        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/d
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys("StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[
        PassButton.click();
        PassButton.sendKeys("BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div
        LoginButton.click();

      /*  WebElement ExploreButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/header/div/div/div/div[1]/di
        ExploreButton.click();
*/

        WebElement SearchButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/main/div/di
    SearchButton.click();
    SearchButton.sendKeys("Elon Musk "+ Keys.ENTER);

    WebElement ElonButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/di
    ElonButton.click();
```

Activate Windows

Test Name: Mute notification				
Description: Muting notification on X				
Pre-condition(s): We have to have an account on X already and notification turned on				
Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**

1. Login 2. Open notification settings 3. Mute them	X account	Muting the notification	Notification muted	PASS

```
        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/di
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/di
        PassButton.click();
        PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/d
        LoginButton.click();

      WebElement MmoreButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/header/div/div/div/div[1
      MmoreButton.click();
      WebElement SettingsButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div[2]/div/div[3]/div
      SettingsButton.click();
      WebElement NotificationButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/
      NotificationButton.click();
      //works okay
      WebElement FilterButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/
      FilterButton.click();
      WebElement MutedNotifButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/ss
      MutedNotifButton.click();
      WebElement MutedNotButton2 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/sec
      MutedNotButton2.click();
```

Test Name: Follow				
Description: Follow a random user on x				
Pre-condition(s): We have to have an account on X already, find an account to follow				
Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**
1. Login 2.Find user 3. Follow	Have an account, find an user	To follow an user	User followed	PASS

```
public void testLoginToX() {
    WebElement signInButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div[1]/div
    signInButton.click();
    WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/
    MailOrUsernameButton.click();
    MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");
    WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
    NextButton.click();
    WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
    PassButton.click();
    PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
    WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/di
    LoginButton.click();
    WebElement SearchButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/
    SearchButton.click();
    SearchButton.sendKeys( ...keysToSend: "Elon Musk "+ Keys.ENTER);
    WebElement ElonButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/div/
    ElonButton.click();
    WebElement FollowButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/di
    FollowButton.click();
```

Test Name: DeletePost				
Description: Delete an already existing post				
Pre-condition(s): Have a post on x				
Test Steps: 1. Login 2. Find your post 3. Delete it	**Test Data:** X account and a post	**Expected Result:** Deleting a post	**Actual Result:** Post deleted	**Status:** PASS

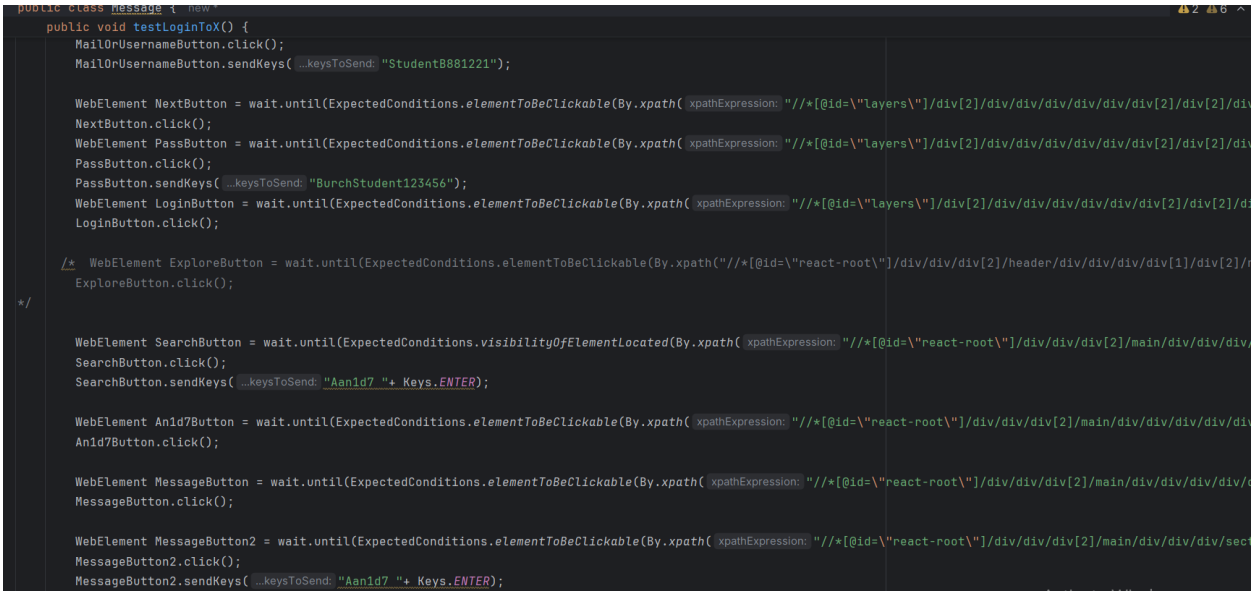
```
public void testLoginToX() {
    signInButton.click();
    WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div
    MailOrUsernameButton.click();
    MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");
    WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]
    NextButton.click();
    WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]
    PassButton.click();
    PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
    WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2
    LoginButton.click();
    WebElement ProfileButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/d
    ProfileButton.click();
    WebElement MoreButton1 = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/d
    MoreButton1.click();
    WebElement DeleteButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div[2]/div/di
    DeleteButton.click();
    WebElement DeleteButton1 = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div/div[
    DeleteButton1.click();
```

Test Name: Block
Description: Blocking a random user on X
Pre-condition(s): We have to have an account on X already, find an account to block

Test Steps:	Test Data:	Expected Result:	Actual Result:	Status:
1. Login 2. Find a profile 3. Block the profile	X account, other profile to block	To block an user	User blocked	PASS

```
public void testLoginToX() {
    MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");

    WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/d
    NextButton.click();
    WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/d
    PassButton.click();
    PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
    WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div/
    LoginButton.click();

    WebElement SearchButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/di
    SearchButton.click();
    SearchButton.sendKeys( ...keysToSend: "Jake Paul "+ Keys.ENTER);

    WebElement PaulButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/di
    PaulButton.click();

    /*works fine*/
    WebElement MoreButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/
    MoreButton.click();

    WebElement BlockButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div[2]/div/div[3]/div/div/
    BlockButton.click();

    WebElement BlockButton2 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
    BlockButton2.click();
```

Test Name: Message				
Description: DM someone on X				
Pre-condition(s): We have to have an account on X already and find someone to DM				
Test Steps:	**Test Data:**	**Expected Result:**	**Actual Result:**	**Status:**
1.Login 2. Find an user 3. DM that user	X account, other account to DM	To run the test smoothly	Message sent	PASS



```
public class Message {
    public void testLoginToX() {
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        PassButton.click();
        PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        LoginButton.click();

       /*  WebElement ExploreButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath("//*[@id=\"react-root\"]/div/div/div[2]/header/div/div/div/div[1]/div[2]/
        ExploreButton.click();
*/


        WebElement SearchButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div
        SearchButton.click();
        SearchButton.sendKeys( ...keysToSend: "Aan1d7 "+ Keys.ENTER);

        WebElement An1d7Button = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/div
        An1d7Button.click();

        WebElement MessageButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/div/
        MessageButton.click();

        WebElement MessageButton2 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div/sect
        MessageButton2.click();
        MessageButton2.sendKeys( ...keysToSend: "Aan1d7 "+ Keys.ENTER);
```

Test Name: Logout				
Description: Logout				
Pre-condition(s): We have to have an account on X already, so the test may work				
Test Steps: 1. Login 2. Logout	**Test Data:** X account	**Expected Result:** To run the test smoothly	**Actual Result:** Loged out	**Status:** PASS

```
    public void testLoginToX() {
        }

        // Wait for the "Sign In" button to be clickable
        WebDriverWait wait = new WebDriverWait(webDriver, Duration.ofSeconds(30));
        WebElement signInButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/main/div/div/div[1]/di

        // Click the "Sign In" button
        signInButton.click();

        WebElement MailOrUsernameButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]
        MailOrUsernameButton.click();
        MailOrUsernameButton.sendKeys( ...keysToSend: "StudentB881221");

        WebElement NextButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        NextButton.click();
        WebElement PassButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        PassButton.click();
        PassButton.sendKeys( ...keysToSend: "BurchStudent123456");
        WebElement LoginButton = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/div[2]/div
        LoginButton.click();

        WebElement Button1 = wait.until(ExpectedConditions.elementToBeClickable(By.xpath( xpathExpression: "//*[@id=\"react-root\"]/div/div/div[2]/header/div/div/div/div[2]/d
        Button1.click();

        WebElement LogOutButton = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div[2]/div/div[2]/div
        LogOutButton.click();

        WebElement LogOutButton2 = wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath( xpathExpression: "//*[@id=\"layers\"]/div[2]/div/div/div/div/div/div[2]/
        LogOutButton2.click();
```

Activate Windows

...

9. Conclusion

9.1. Testing Summary

Testing Tool	Total Tests	Passed Tests	Failed Tests
Selenium, WebDriver JUnit5 Java	10	10	0

9.2. Final Thoughts

Overall, X performed well during testing, with most core features functioning as expected. A few minor issues, such as problems with element visibility and clickability, were observed. I had some problems with XPaths, later I found the mistake and it worked well. There were few problems with it on the Registration form. That's the reason why I avoided the Registration form and the elements on it.

Overall, everything seemed well.