



# American International University- Bangladesh

## SOFTWARE QUALITY AND TESTING Faculty: ABHIJIT BHOWMIK

### Assignment Section: A

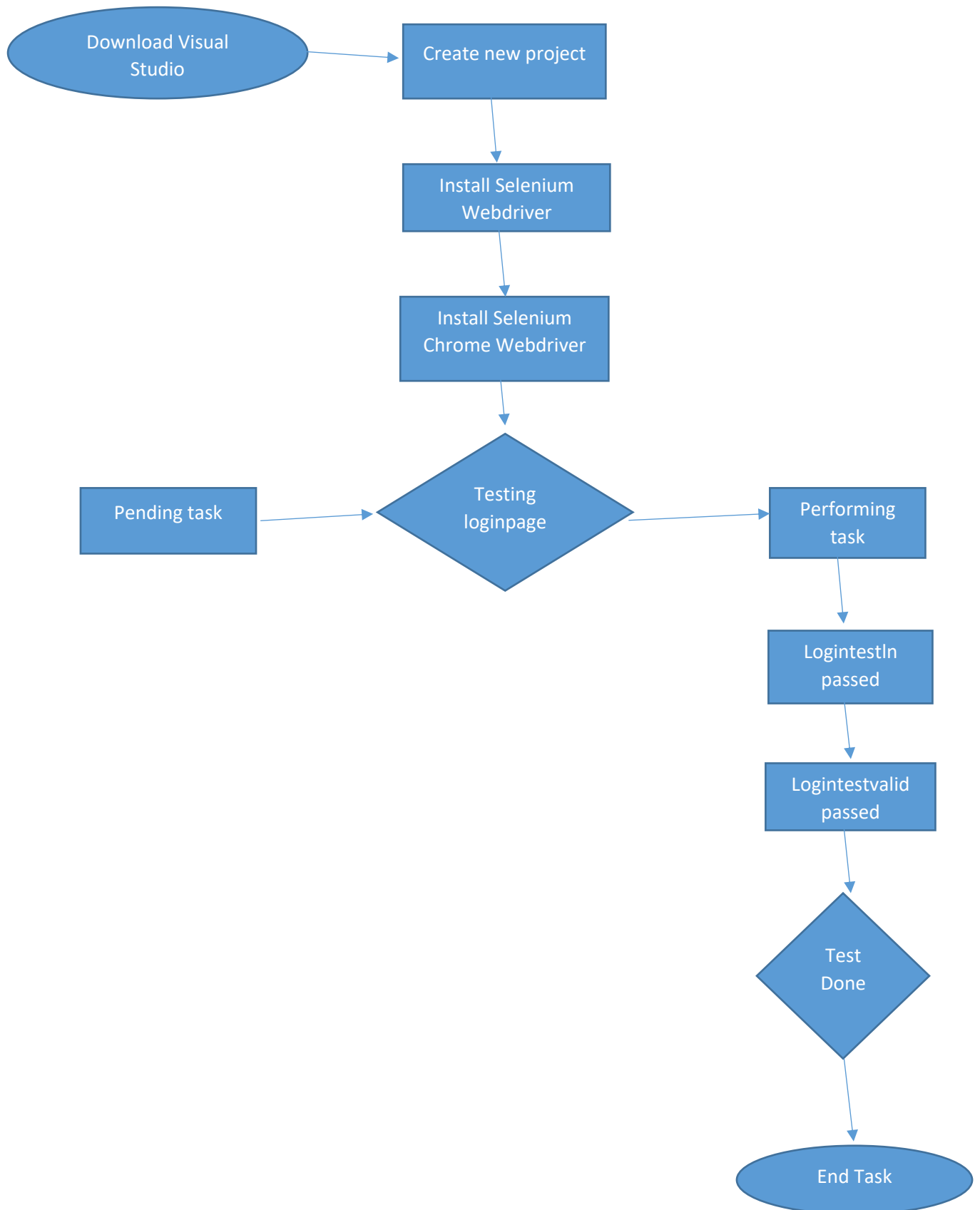
Student Name	Student Id
MD.AHSAN NAYEM	19-41212-2
SYEDA FARIHA SULTANA	19-39718-1
PRISILA SAHA	19-39759-1

## **Summary of Selenium testing**

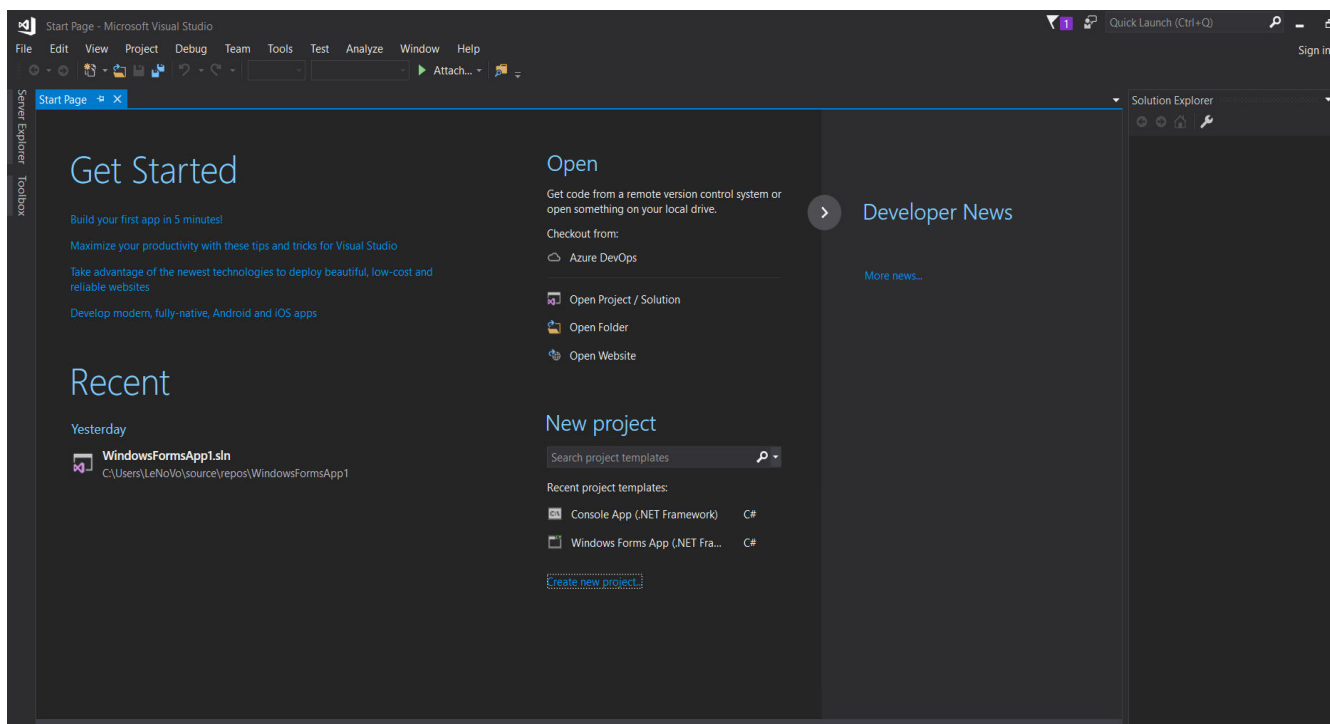
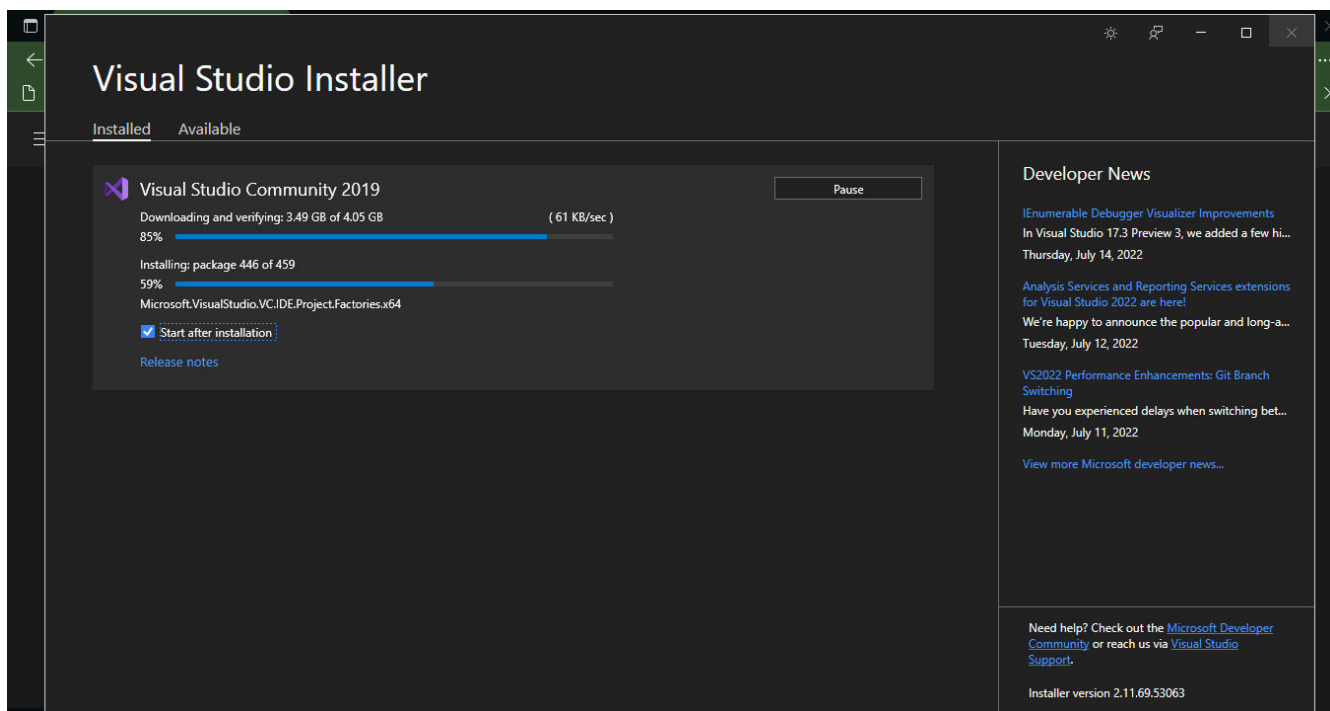
Selenium is an open-source project that serves as a hub for a variety of tools and frameworks that facilitate browser automation. It offers a playback tool so that functional tests may be created across the majority of current web browsers without the requirement to learn a test scripting language (Selenium IDE). Additionally, it offers a test domain-specific language (Selenese) that enables the writing of tests in a variety of well-known programming languages, such as JavaScript (Node.js), C#, Groovy, Java, Perl, PHP, Python, Ruby, and Scala. Windows, Linux, and macOS all support Selenium. Under the terms of the Apache License 2.0, it is open-source software. This is a great way to test software. In our case, we configure selenium with C# language. C# is useful for automation testing because it allows the automation test engineer to develop an application with the help of Visual Studio on the .Net framework. First, we install the IDE of the C# programming language and which is Visual Studio. Then we create a console-based new project. Then we install the selenium web driver and selenium chrome web driver. Then we do an automation test of our C# project's login page with the selenium testing tool. After completing the code we run the test and it passed. Then we can see that on the login page there is a message that comes success denied and our automation testing is completed.



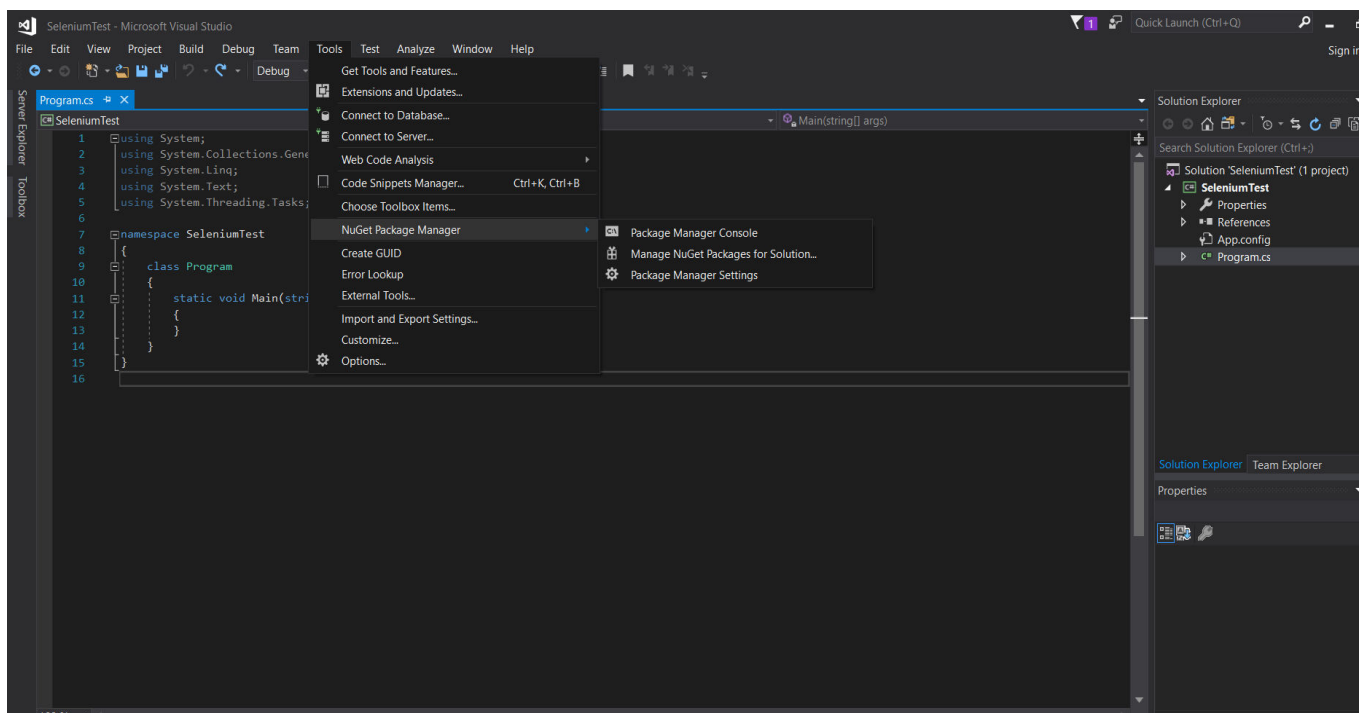
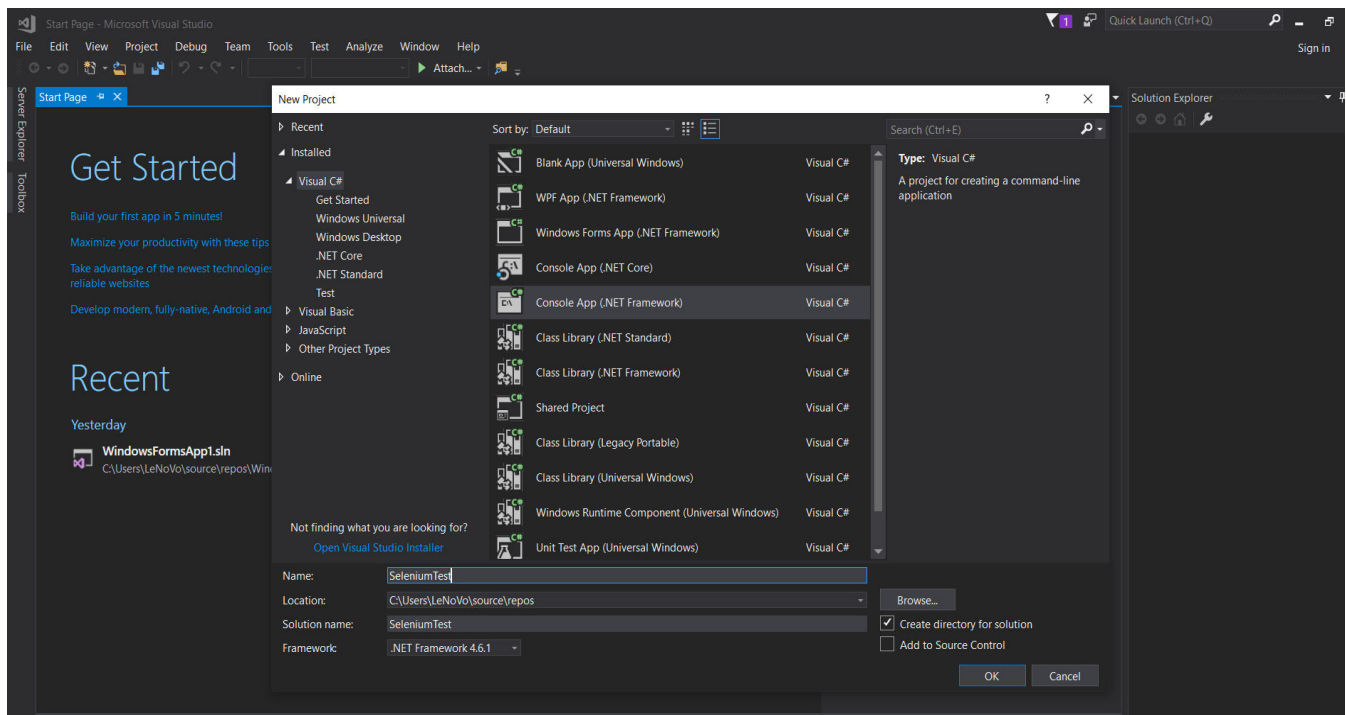
### Flowchart



The task is assigned to all the members



## Task in progress



SeleniumTest - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Quick Launch (Ctrl+Q)

Sign in

SeleniumTest - Solution Explorer

Program.cs

Manage Packages for Solution

Package source: nuget.org

Search: selenium

Include prerelease

Package Name	Author	Downloads	Version
Selenium.WebDriver	by Selenium Committers	55.6M	v4.3.0
Selenium.Support	by Selenium Committers	42.1M	v4.3.0
Selenium.WebDriver.ChromeDriver	by jsakamoto	30.1M	v103.0.5060.5300
Selenium.Firefox.WebDriver	by jbaranda	7.24M	v0.27.0
Selenium.WebDriver.IEDriver	by jsakamoto	7.75M	v4.2.0
Selenium.Chrome.WebDriver	by jbaranda	6.87M	v85.0.0
Selenium.WebDriverBackedSelenium	by Selenium Committers	2.4M	v4.1.0

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☐ Do not show this again

**Selenium.WebDriver**

Versions - 0

Project	Version
<input checked="" type="checkbox"/> Project	
<input checked="" type="checkbox"/> SeleniumTest	

Installed: not installed Uninstall

Version: Latest stable 4.3.0 Install

**Options**

**Description**

Selenium is a set of different software tools each with a different approach to supporting browser automation. These tools are highly flexible, allowing many options for locating and manipulating elements within a browser, and one of its key features is the support for automating multiple browser

Solution Explorer

Team Explorer

Properties

SeleniumTest - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Quick Launch (Ctrl+Q)

Sign in

SeleniumTest - Solution Explorer

Program.cs

Manage Packages for Solution

Package source: nuget.org

Search: selenium chrome

Include prerelease

Package Name	Author	Downloads	Version
Selenium.WebDriver.ChromeDriver	by jsakamoto	30.1M	v103.0.5060.5300
Selenium.Chrome.WebDriver	by jbaranda	6.87M	v85.0.0
Selenium.Firefox.WebDriver	by jbaranda	7.24M	v0.27.0
Selenium.InternetExplorer.WebDriver	by jbaranda	2.04M	v3.150.1
WebDriver.ChromeDriver.win32	by SeriousM	774K	v103.0.5060.53
Selenium.PhantomJS.WebDriver	by jbaranda	670K	v2.1.1
WebDriverChromeDriver	by Chromium	170K	v2.10.0

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**Selenium.WebDriver.ChromeDriver**

Versions - 0

Project	Version
<input checked="" type="checkbox"/> Project	
<input checked="" type="checkbox"/> SeleniumTest	

Installed: not installed Uninstall

Version: Latest stable 103.0.5060.5300 Install

**Options**

**Description**

Install Chrome Driver (Win32, macOS, macOS M1, and Linux64) for Selenium WebDriver into your Unit Test Project.

"chromedriver.exe" is copied to the bin folder from the package folder when the build process.

NuGet package restoring ready, and no need to commit "chromedriver.exe" binary into source code control repository.

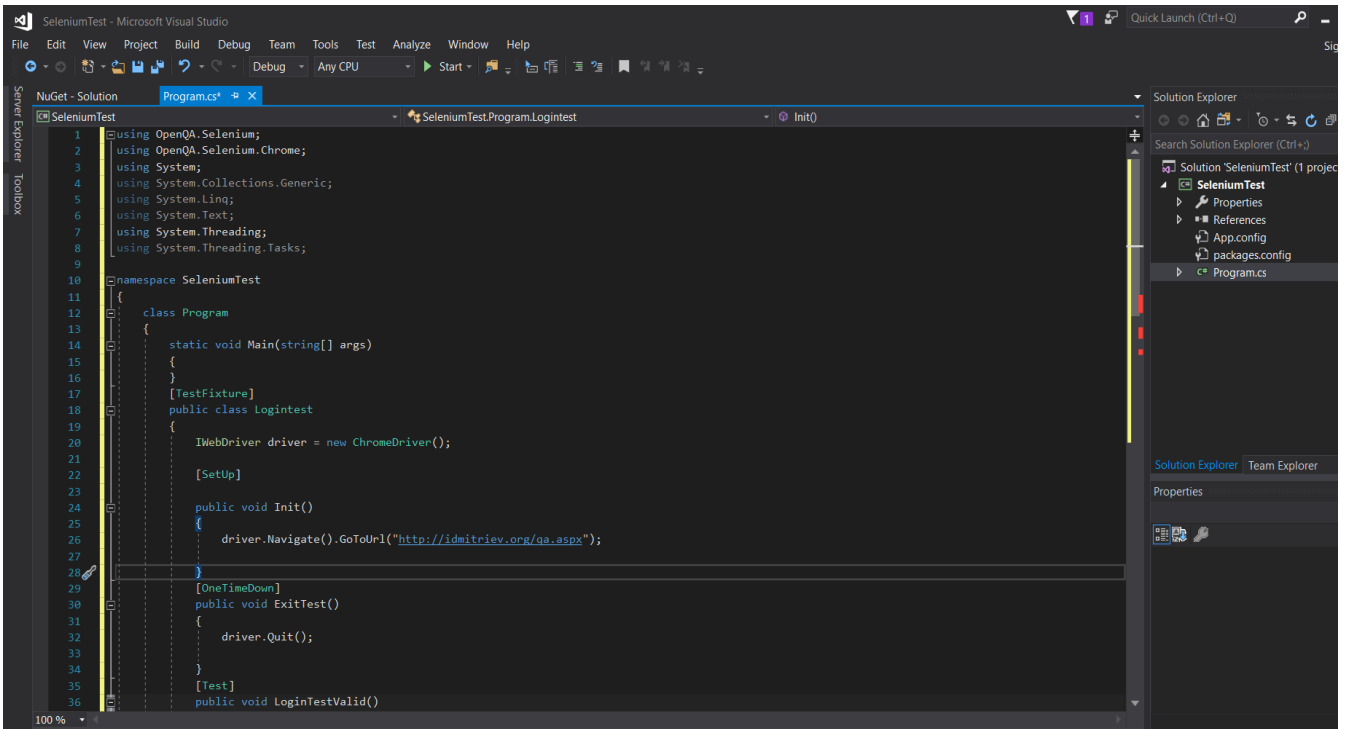
/ The MSBuild script that contained this package is free and

Solution Explorer

Team Explorer

Properties

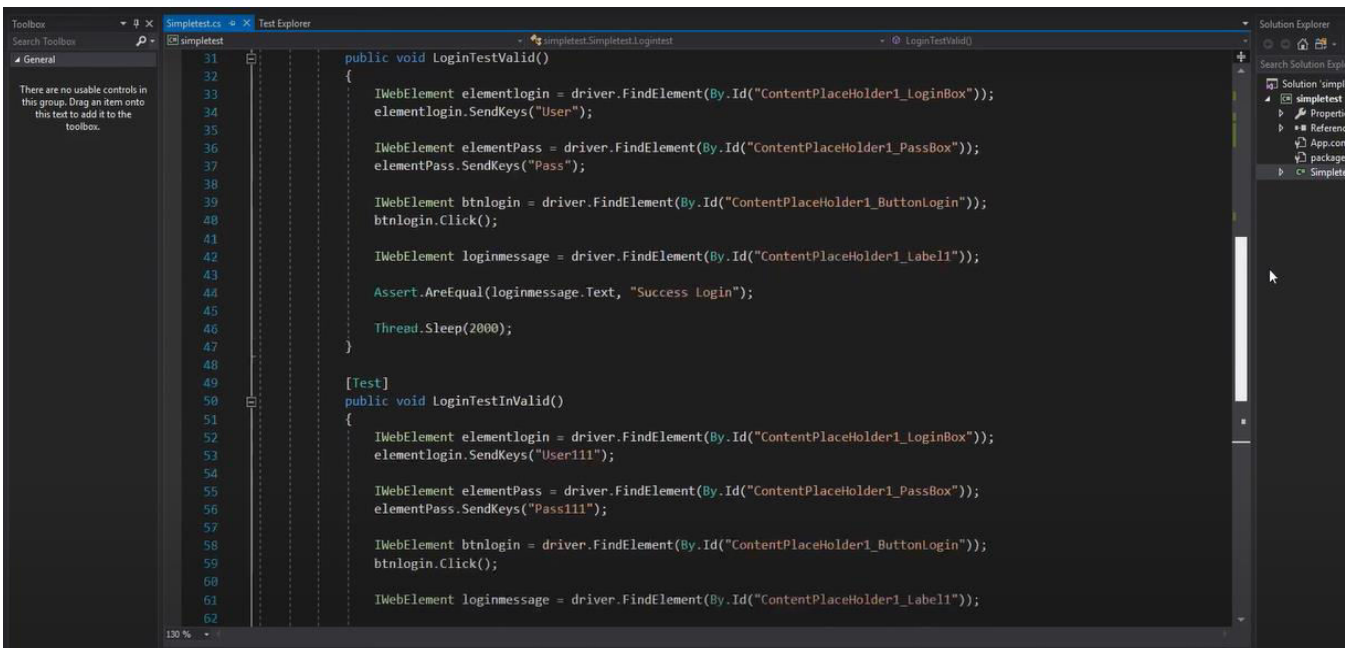




This screenshot shows the Visual Studio IDE with the SeleniumTest project open. The main editor displays Program.cs, which contains the following code:

```
1 using OpenQA.Selenium;
2 using OpenQA.Selenium.Chrome;
3 using System;
4 using System.Collections.Generic;
5 using System.Linq;
6 using System.Text;
7 using System.Threading;
8 using System.Threading.Tasks;
9
10 namespace SeleniumTest
11 {
12     class Program
13     {
14         static void Main(string[] args)
15         {
16         }
17         [TestFixture]
18         public class Logintest
19         {
20             IWebDriver driver = new ChromeDriver();
21
22             [SetUp]
23
24             public void Init()
25             {
26                 driver.Navigate().GoToUrl("http://idmitriev.org/ga.aspx");
27             }
28
29             [OneTimeDown]
30             public void ExitTest()
31             {
32                 driver.Quit();
33             }
34
35             [Test]
36             public void LoginTestValid()
```

The Solution Explorer on the right shows the project structure for SeleniumTest, including Properties, References, App.config, packages.config, and Program.cs.



This screenshot shows the Visual Studio IDE with the SeleniumTest project open. The main editor displays LoginTestValid.cs, which contains the following code:

```
31 public void LoginTestValid()
32 {
33     IWebElement elementlogin = driver.FindElement(By.Id("ContentPlaceholder1_LoginBox"));
34     elementlogin.SendKeys("User");
35
36     IWebElement elementPass = driver.FindElement(By.Id("ContentPlaceholder1_PassBox"));
37     elementPass.SendKeys("Pass");
38
39     IWebElement btnlogin = driver.FindElement(By.Id("ContentPlaceholder1_ButtonLogin"));
40     btnlogin.Click();
41
42     IWebElement loginmessage = driver.FindElement(By.Id("ContentPlaceholder1_Label1"));
43
44     Assert.AreEqual(loginmessage.Text, "Success Login");
45
46     Thread.Sleep(2000);
47 }
48
49 [Test]
50 public void LoginTestInvalid()
51 {
52     IWebElement elementlogin = driver.FindElement(By.Id("ContentPlaceholder1_LoginBox"));
53     elementlogin.SendKeys("User111");
54
55     IWebElement elementPass = driver.FindElement(By.Id("ContentPlaceholder1_PassBox"));
56     elementPass.SendKeys("Pass111");
57
58     IWebElement btnlogin = driver.FindElement(By.Id("ContentPlaceholder1_ButtonLogin"));
59     btnlogin.Click();
60
61     IWebElement loginmessage = driver.FindElement(By.Id("ContentPlaceholder1_Label1"));
62 }
```

The Solution Explorer on the right shows the project structure for SeleniumTest, including Properties, References, App.config, packages.config, and SimpleTest.



```
37 elementPass.SendKeys("Pass");
38
39 IWebElement btnlogin = driver.FindElement(By.Id("ContentPlaceholder1_ButtonLogin"));
40 btnlogin.Click();
41
42 IWebElement loginmessage = driver.FindElement(By.Id("ContentPlaceholder1_Label1"));
43
44 Assert.AreEqual(loginmessage.Text, "Success Login");
45
46 Thread.Sleep(2000);
47
48
49 [Test]
50 public void LoginTestInvalid()
51 {
52     IWebElement elementlogin = driver.FindElement(By.Id("ContentPlaceholder1_LoginBox"));
53     elementlogin.SendKeys("User111");
54
55     IWebElement elementPass = driver.FindElement(By.Id("ContentPlaceholder1_PassBox"));
56     elementPass.SendKeys("Pass111");
57
58     IWebElement btnlogin = driver.FindElement(By.Id("ContentPlaceholder1_ButtonLogin"));
59     btnlogin.Click();
60
61     IWebElement loginmessage = driver.FindElement(By.Id("ContentPlaceholder1_Label1"));
62
63     Assert.AreEqual(loginmessage.Text, "Success Denied");
64
65     Thread.Sleep(2000);
66 }
67
68 }
```

Run: All | Run... | Playlist: All Tests

No Traits (2)

- ✓ LoginTestValid 3 sec
- ✓ LoginTestInvalid 2 sec

Summary

Last Test Run Passed (Total Run Time 0:00:09.0175276)

2 Tests Passed

Output

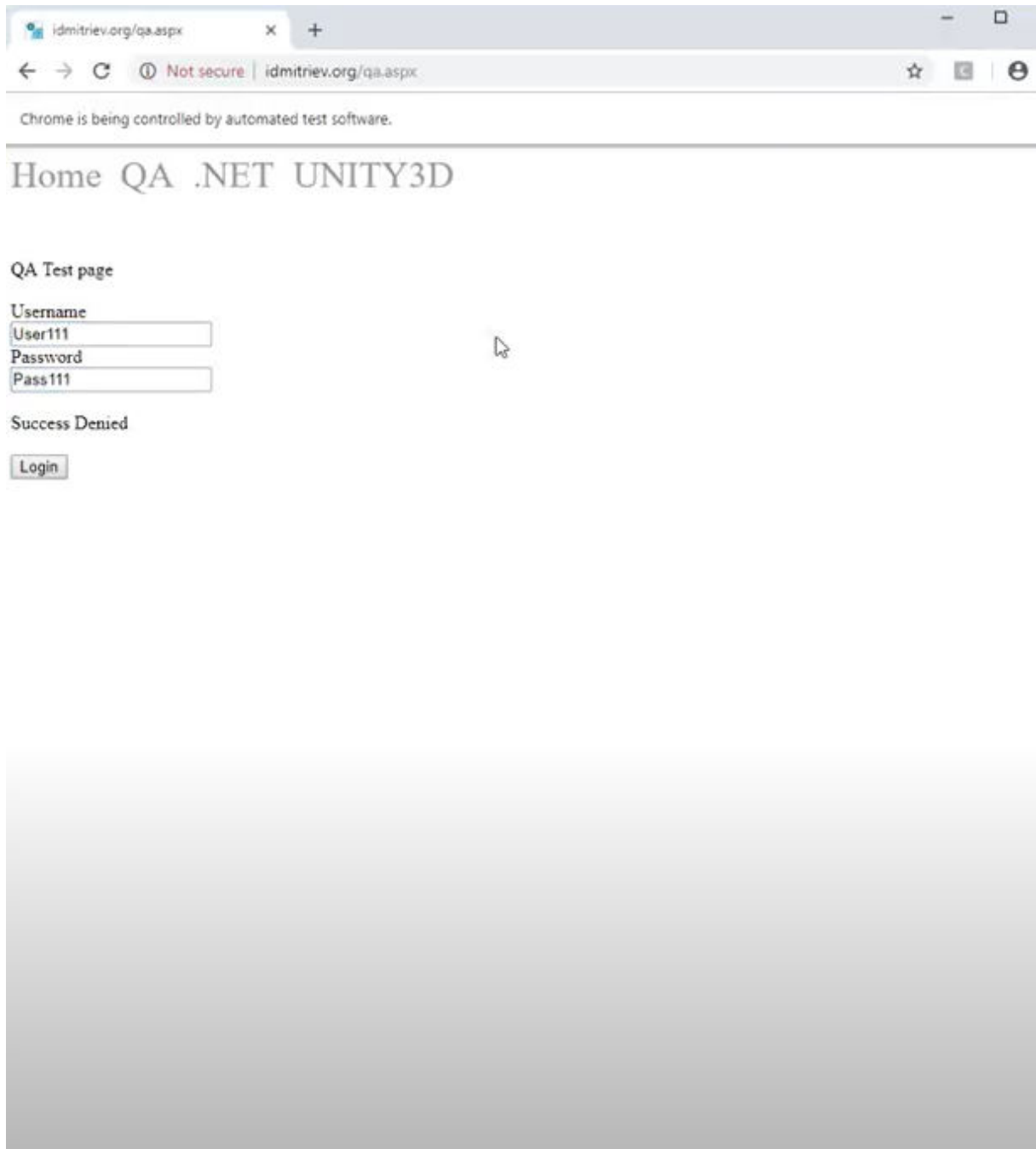
Show output from: Tests

```
[1/30/2019 8:46:24 PM Informational] ----- Run test started -----
[1/30/2019 8:46:25 PM Informational] NUnit Adapter 3.12.0.0: Test execution started
[1/30/2019 8:46:25 PM Informational] Running selected tests in 0:\projects\loginsimpletest\simpletest\bin\Debug\simpletest.exe
```





Task Complete



The screenshot shows a web browser window with the address bar displaying "idmitriev.org/qa.aspx". The page title is "Home QA .NET UNITY3D". Below the title, there is a section titled "QA Test page". This section contains a login form with two input fields: "Username" (containing "User111") and "Password" (containing "Pass111"). Below the form, there is a message "Success Denied" and a "Login" button. The browser's address bar also shows "Not secure" and "idmitriev.org/qa.aspx". A message at the top of the page states "Chrome is being controlled by automated test software."

idmitriev.org/qa.aspx

Home QA .NET UNITY3D

QA Test page

Username  
User111

Password  
Pass111

Success Denied

Login

