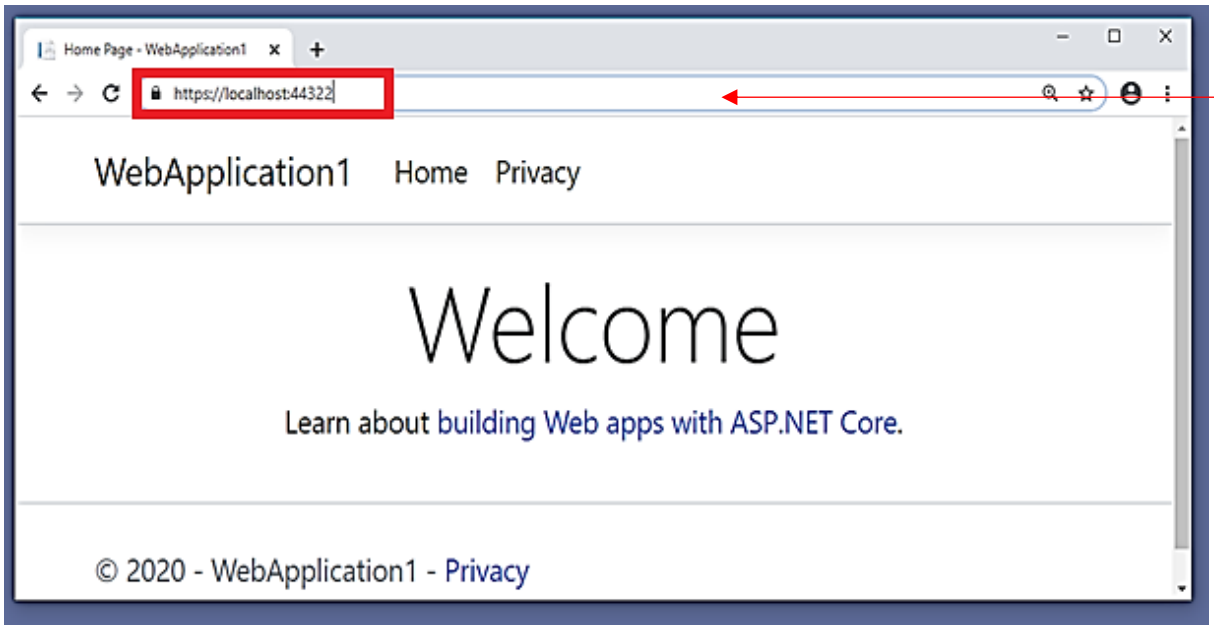
Selenium Web Driver Example – Test UI View

STEP 1: Run the application to test and copy the URL on the address bar



STEP 2: Create Unit Test project

- Start another instance of Visual Studio
- Create a Unit Test Project (.NET Framework)
- Rename the default UnitTest1.cs file to HomePageUnitTest.cs
- Install the following packages using Nuget Package Manager:
  Selenium.WebDriver
  Selenium.WebDriver.ChromeDriver
- Add the following code into HomePageUnitTest class:

```
namespace UnitTestUI
{

  [TestClass]
  public class HomePageUnitTest
  {

   private string appURL= "https://localhost:44322/";

   [TestMethod]
   public void ChromeTitleTest()
   {
       IWebDriver driver = new ChromeDriver();
       driver.Navigate().GoToUrl(appURL);
       Assert.IsTrue(driver.Title.Contains("Home"));
       driver.Quit();
   }
```

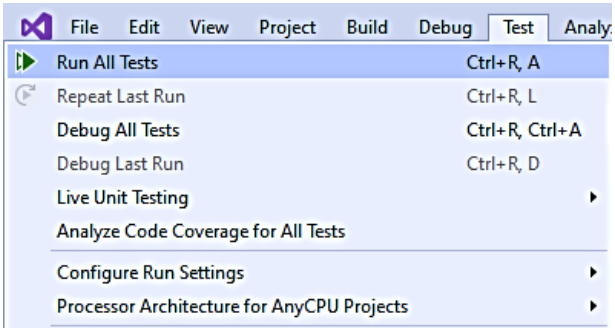
```
  [TestMethod]
   public void ChromeElementsTest()
   {
       IWebDriver driver = new ChromeDriver();
       driver.Navigate().GoToUrl(appURL);
       Assert.IsNotNull(driver.FindElement(By.TagName("h1")));
       Assert.IsNotNull(driver.FindElement(By.TagName("header")));
       Assert.IsNotNull(driver.FindElement(By.TagName("footer")));
       Assert.IsNotNull(driver.FindElement(By.TagName("nav")));
       driver.Quit();
   }

   [TestMethod]
   public void ChromeNavCountTest()
   {
       IWebDriver driver = new ChromeDriver();
       driver.Navigate().GoToUrl(appURL);
       ReadOnlyCollection<IWebElement> navItems = driver.FindElements(By.ClassName("nav-item"));
       Assert.IsTrue(navItems.Count >= 1,"At least one nav item required");
       driver.Quit();
   }
   [TestMethod]
   public void ChromeTuteLink()
   {
       IWebDriver driver = new ChromeDriver();
      driver.Navigate().GoToUrl(appURL);
      driver.FindElement(By.Id("tutorialLink")).Click();
      Assert.AreEqual("https://docs.microsoft.com/en-us/aspnet/core/?view=aspnetcore-5.0",
     driver.Url);
      driver.Quit();
   }
 }
}
```

Notes: To ensure the driver always closes its window, you need to add the try and finally blocks in your code.

STEP 3: Run all tests.

Ensure the application to test is still running before executing the test methods.



References:

- https://docs.microsoft.com/en-us/azure/devops/pipelines/test/continuous-test-selenium?view=azure-devops&viewFallbackFrom=azure-devops%5C
- https://www.selenium.dev/documentation/en/webdriver/