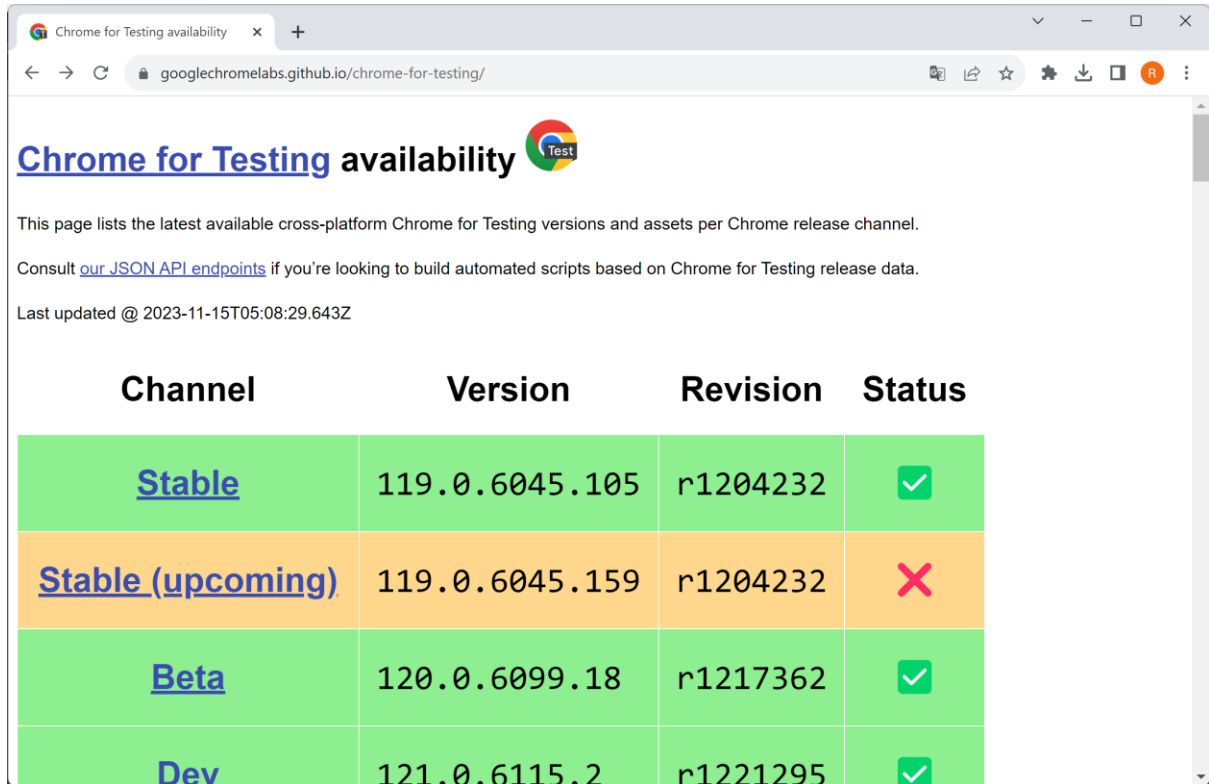


Lab 13

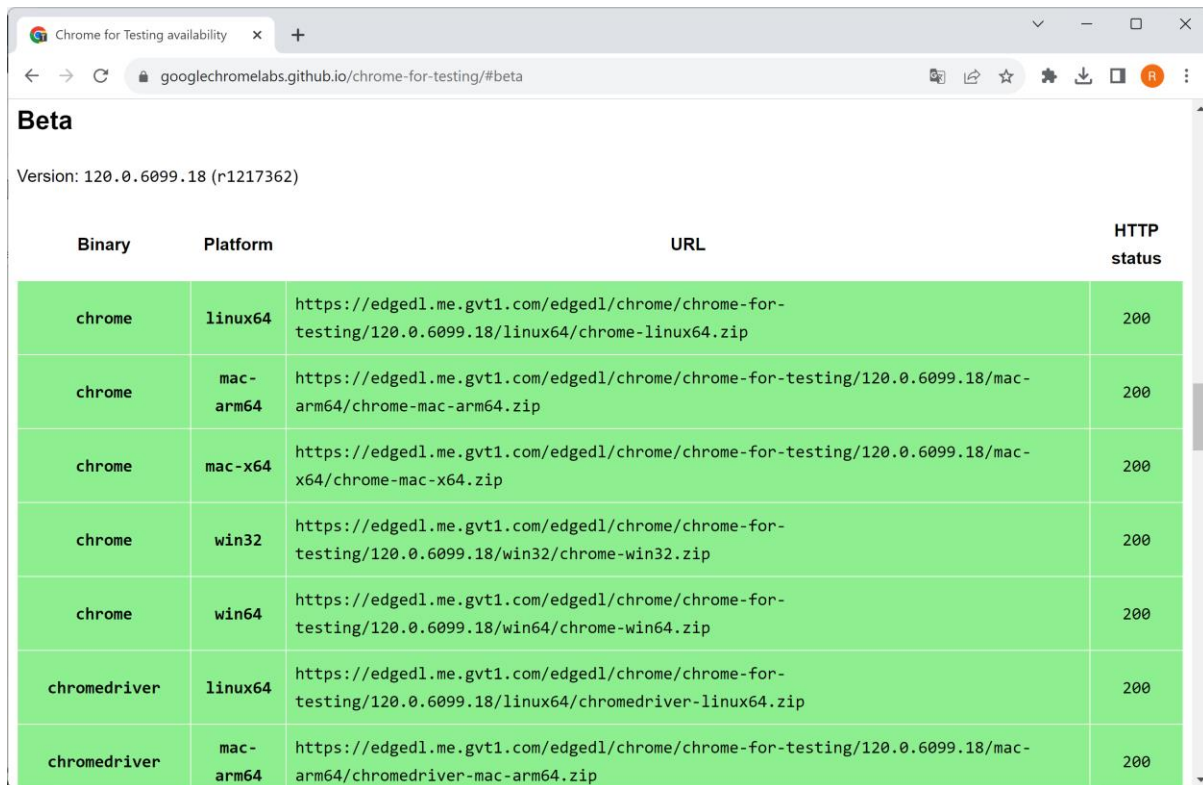
Part 1:

First go to the page <https://googlechromelabs.github.io/chrome-for-testing/>

A screenshot of a web browser showing the 'Chrome for Testing availability' page. The browser's address bar shows the URL 'googlechromelabs.github.io/chrome-for-testing/'. The page has a title 'Chrome for Testing availability' with a Chrome logo and a 'Test' badge. Below the title, there is a paragraph explaining that the page lists the latest available cross-platform Chrome for Testing versions and assets per Chrome release channel. It also mentions consulting JSON API endpoints for automated scripts and provides a last updated timestamp: '@ 2023-11-15T05:08:29.643Z'. A table follows, with columns 'Channel', 'Version', 'Revision', and 'Status'. The table contains four rows: 'Stable' (green background, status checkmark), 'Stable (upcoming)' (orange background, status X), 'Beta' (green background, status checkmark), and 'Dev' (green background, status checkmark).

Channel	Version	Revision	Status
Stable	119.0.6045.105	r1204232	✓
Stable (upcoming)	119.0.6045.159	r1204232	✗
Beta	120.0.6099.18	r1217362	✓
Dev	121.0.6115.2	r1221295	✓

Then go to the **Beta** part of the page



Beta

Version: 120.0.6099.18 (r1217362)

Binary	Platform	URL	HTTP status
chrome	linux64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/linux64/chrome-linux64.zip	200
chrome	mac-arm64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/mac-arm64/chrome-mac-arm64.zip	200
chrome	mac-x64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/mac-x64/chrome-mac-x64.zip	200
chrome	win32	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/win32/chrome-win32.zip	200
chrome	win64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/win64/chrome-win64.zip	200
chromedriver	linux64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/linux64/chromedriver-linux64.zip	200
chromedriver	mac-arm64	https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/120.0.6099.18/mac-arm64/chromedriver-mac-arm64.zip	200

Download both the chromedriver and chrome-headless-shell for you operating system.

Unzip the chrome driver somewhere on your filesystem (for example C:\tmp\chromedriver-win64)

Unzip the chrome-headless-shell somewhere on your filesystem (for example C:\tmp\chrome-headless-shell-win64)

Given is the project **WebdriverProject**

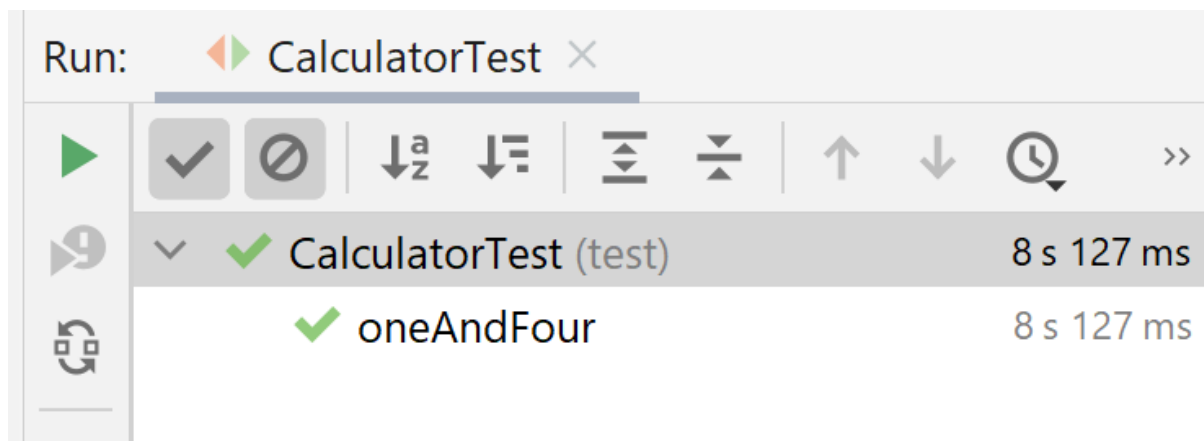
In the folder **src/test/java/withoutpageobject** you find the file **CalculatorTest** that test the working of the online calculator at <http://www.rekenmachine-calculator.nl/>

Modify the file so that the chrome driver and the chrome headless shell points to the correct file location:

@Before

```
public void createWebDriver() {
    System.setProperty("webdriver.chrome.driver", "C:\\tmp\\chromedriver-
win64\\chromedriver.exe");
    ChromeOptions options = new ChromeOptions();
    options.setBinary("C:\\tmp\\chrome-headless-shell-win64\\chrome-headless-
shell.exe");
    options.addArguments("--remote-allow-origins=*");
    // create chrome instance
    driver = new ChromeDriver(options);
    driver.manage().timeouts().implicitlyWait(50, TimeUnit.SECONDS);
    driver.manage().timeouts().pageLoadTimeout(100, TimeUnit.SECONDS);
}
```

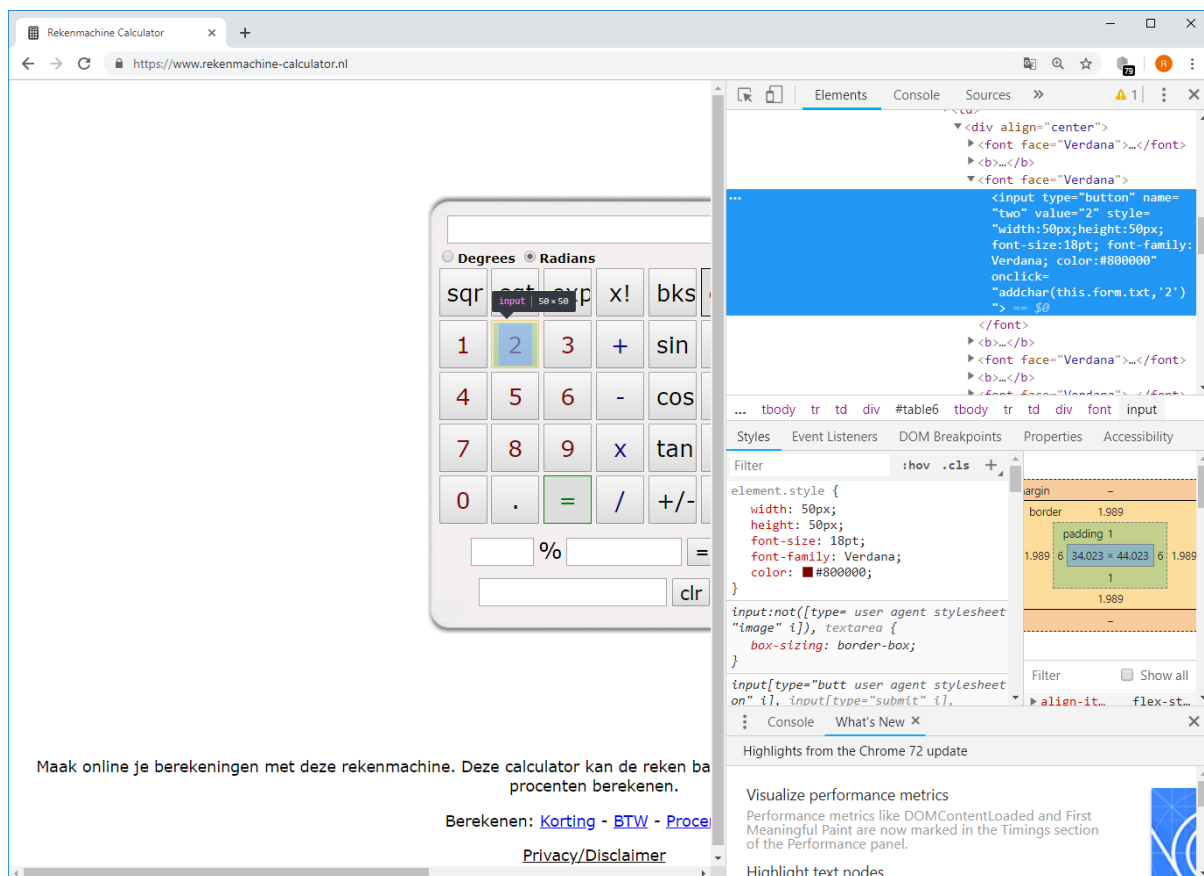
Run the test and if everything is correct you should see that the test passed:



Add some more tests that test the correct working of the calculator webpage. If you need to find the locator of a certain web element you can do the following:

In the chrome browser, go to <https://www.rekenmachine-calculator.nl/>

Right-click a webelement (for example the button 2) and select **Inspect**.



```

    <div align="center">
      <font face="Verdana">...</font>
      <b>...</b>
      <font face="Verdana">
        <input type="button" name=
          "two" value="2" style=
            "width:50px;height:50px;
            font-size:18pt; font-family:
            Verdana; color:#800000"
            onclick=
              "addchar(this.form.txt,'2')
            "> == $0
      </font>
      <b>...</b>
      <font face="Verdana">...</font>

```

You see now that this button has the locator **name="two"**

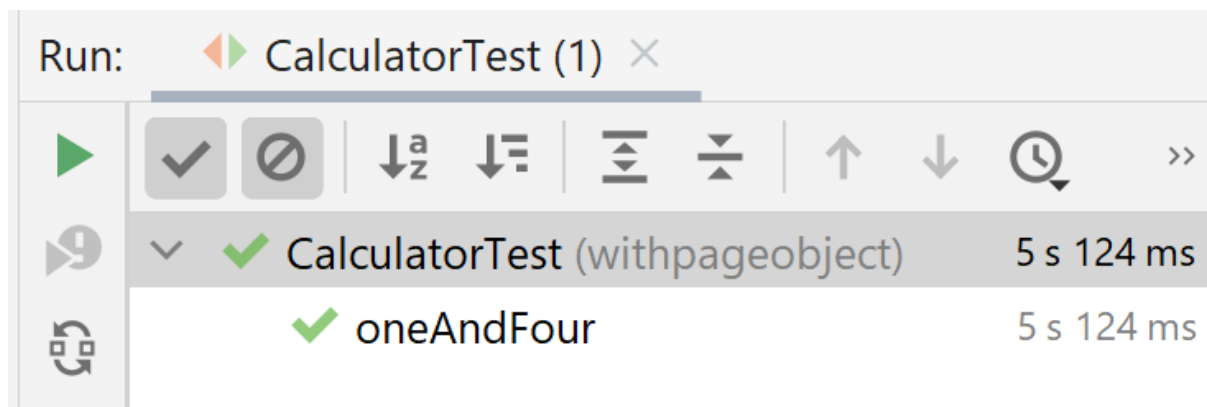
You can also right-click in the Elements tab, and select **Copy->Copy Selector** to get the CSS selector for this webelement.

You can also right-click in the Elements tab, and select **Copy->Copy XPath** to get the XPath selector for this webelement.

Part 2:

In the same **WebdriverProject** you find an example using a page object in the folder **src/test/java/withpageobject**:

If you run the class **CalculatorTest** then this test succeeds without errors:



Write some new tests that tests the correct working of the calculator. To do this, you also have to add more code to the CalculatorPage class.

Part 3:

In React write a calculator that can add, subtract and multiply 2 numbers. Write a selenium test using a page object to test the calculator.

Part 4:

In React write a calculator that can add, subtract and multiply 2 numbers. When you enter the calculation information and click the add, subtract or multiply button, the application should navigate to the results page that shows the result of the calculation. Write a selenium test using a page object to test the calculator.

Part 5:

Write a new selenium webdriver tests for the registration process at the site

<http://demo.nopcommerce.com/> using page objects

First click the registerbutton.

Then fill in the registration form

Then check if the new page shows the text **"Your registration completed"**

Register

Your registration completed

CONTINUE

For this site you need to register everytime with an unique email address.

In java you can create a unique email address using a random number:

```
private String createUniqueEmail() {
    String email="@gmail.com";
    String name="frank"+ createRandomNumber();
    return name+email;
}

private int createRandomNumber() {
    return (int) (Math.random() * 5000 + 1);
}
```

Part 6:

Write a new selenium webdriver tests that test the correct working of the application you wrote for lab10 part 2.

What to hand in?

A separate zip file for each part.