Selenio WebDriver con Java

Auto-reproducción

▼ Resumen transcrito

Saltemos y configuremos nuestro entorno.

Para escribir scripts utilizando el cliente Java Selenium WebDriver, necesitaremos lo siguiente:

- El lenguaje de programación Java. Para este curso, usaremos la versión 10 o superior.

- También usaremos el Editor inteligente para escribir nuestro código. Puede utilizar un editor diferente si lo desea, pero todos los ejemplos de este curso se realizarán en IntelliJ.

- Selenium WebDriver se puede ejecutar en todos los navegadores principales, pero en este curso usaremos Chrome. Entonces necesitamos el ejecutable de Selenium chromedriver.

- También necesitaremos el propio navegador Chrome.

Los enlaces para cada uno de estos se pueden encontrar en la sección de recursos. Vamos a empezar.

Instalación de Java

Estamos en el sitio web de Oracle y aquí es donde podemos **descargar Java** ⬈ .

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Java SE Downloads

Java SE Downloads

Java Platform, Standard Edition

Java SE 12.0.2

Java SE 12.0.2 is the latest release for the Java SE Platform

Learn more

→ Installation Instructions
→ Release Notes
→ Oracle JDK License
→ Java SE Licensing Information User Manual
   → Includes Third Party Licenses
→ Certified System Configurations
→ Readme

Oracle JDK Download →

Vemos aquí que hay varias versiones: Java 12, así como Java 11 y Java 8. Necesitamos Java 10 o superior para este curso.

- If you already have 10 or greater, then you're fine. You don't need to download this again.
- If you don't have any of those, then let's go ahead and get you set up.

Let's use version 12.

> **Java Version**
>
> If by the time you take this course, 12 is no longer there. That's okay. Java 11 is the long-term support version, so that one should still be there for at least 3 years. So, pick whichever one you want for now.

We've pressed the download button and here we see that there is some information about the licensing.

Java SE Development Kit 12 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

Important Oracle JDK License Update

The Oracle JDK License has changed for releases starting April 16, 2019.

The new Oracle Technology Network License Agreement for Oracle Java SE is substantially different from prior Oracle JDK licenses. The new license permits certain uses, such as personal use and development use, at no cost -- but other uses authorized under prior Oracle JDK licenses may no longer be available. Please review the terms carefully before downloading and using this product. An FAQ is available here.

Commercial license and support is available with a low cost Java SE Subscription.

Oracle also provides the latest OpenJDK release under the open source GPL License at jdk.java.net.

Important Information About Licensing

For the purposes of this course and also if you're just using this for test automation, then you are fine to download this. However, if you're using this for production development or plan to ship with this, then please read this carefully and decide on how to proceed.

So again, for this course and the purpose of just doing test automation code, we're fine to download this. We'll go ahead and accept the license agreement after reading and you'll see that there are multiple versions.

There's some for Linux, Mac, and Windows. I am going to download this one because I am using a Mac.

Java SE Development Kit 12.0.2

Product / File Description	File Size	Download
Linux	155.14 MB	🔒⬇ jdk-12.0.2_linux-x64_bin.deb
Linux	162.79 MB	🔒⬇ jdk-12.0.2_linux-x64_bin.rpm
Linux	181.68 MB	🔒⬇ jdk-12.0.2_linux-x64_bin.tar.gz
macOS	173.63 MB	🔒⬇ jdk-12.0.2_osx-x64_bin.dmg
macOS	173.98 MB	🔒⬇ jdk-12.0.2_osx-x64_bin.tar.gz
Windows	158.63 MB	🔒⬇ jdk-12.0.2_windows-x64_bin.exe
Windows	179.57 MB	🔒⬇ jdk-12.0.2_windows-x64_bin.zip

We *click* on the file name, which begins the download.

So, I have it downloaded, I *double click* on that file. Again, I'm on Mac and so I see here that I can install this. I *double click* on this package and now I have an *install it* option here.

Let's just go through the steps and we *click install*.
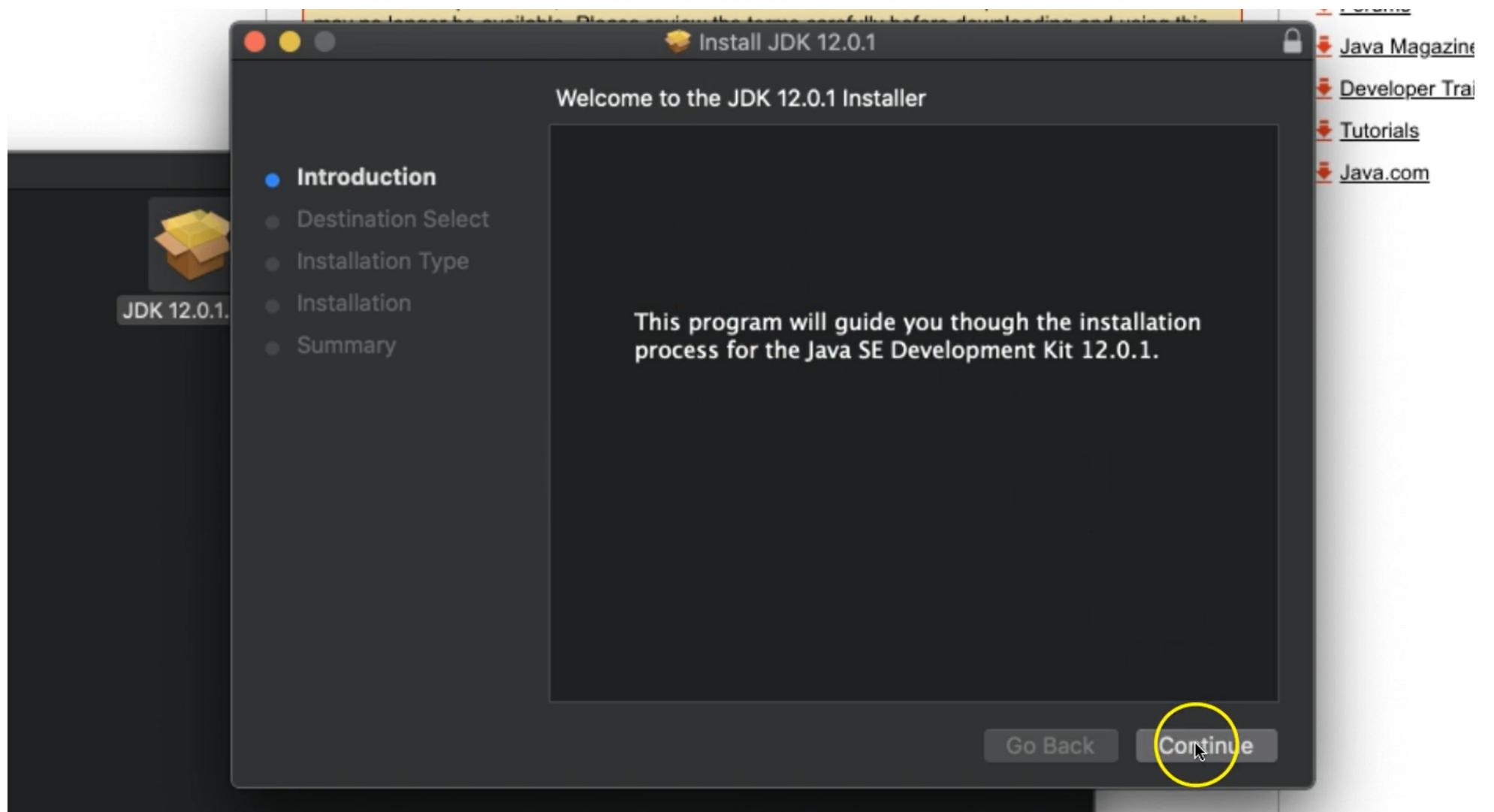
You'll need to enter the password for your computer, and these will be different steps if you're using Windows or Linux, but just follow the prompts. There's nothing special that we're doing or selecting.

Okay, the installation has succeeded.

Installing IntelliJ

The next thing we're going to do is to **install IntelliJ** ⧉ , which again will be the editor that we write our code in.

There are multiple operating systems supported Windows, Mac and Linux, so choose the operating system of your choice.

And then there are also 2 options here: one that says *Ultimate* and one for *Community*.

- The Ultimate is for web and enterprise development. There is a free trial but then you need to purchase it.

- Or you can use the Community edition, which is what I use. This one is free and open source.

You just *click "DOWNLOAD"*.

Don't worry about the form that comes up, it's already downloading.

Once it's finished downloading, just *double click* on that file. Again, this will be different if on Windows, but you'll still have an executable that you can use, and it'll walk you through.

For Mac, all we need to do is to drag this over and follow any prompts.

Again, we're just using default options, so nothing special there.

Installing Chrome Browser

Next we're going to **install the Chrome browser** ⬀ .
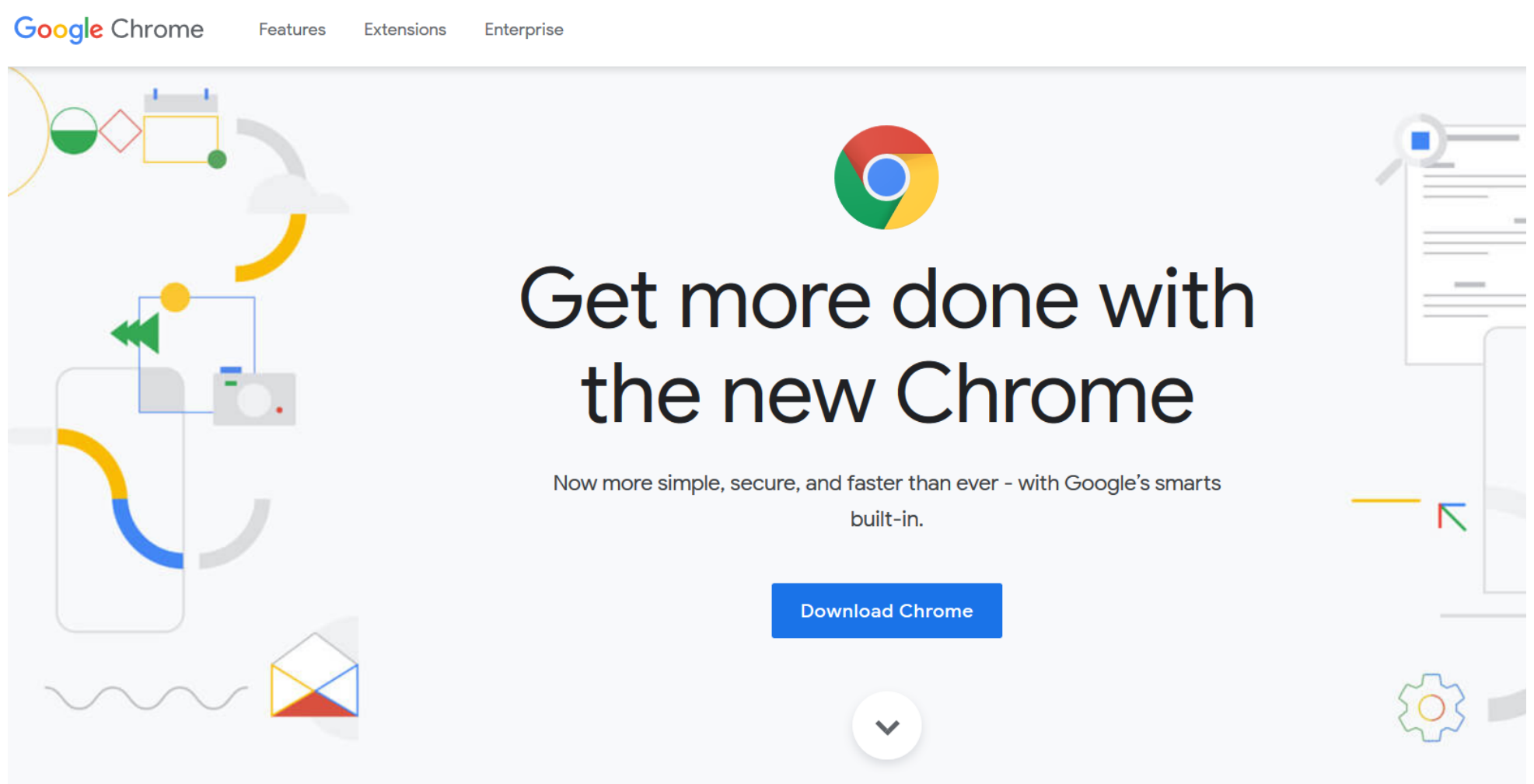
If you already have Chrome, you're fine. Don't worry about this part.

If not, go ahead and *click* the download button (and this may be a different operating system if you're not on Mac). Again, we just download it.

Once the file has been fully downloaded, you simply follow the instructions here on how to finish the install.

Installing Chrome Driver

Finally, we want to **download chromedriver** ⬀ .

This is the WebDriver for Chrome, which is the browser that we'll be using.

ChromeDriver - WebDriver for Chrome

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▼ **DOWNLOADS**

   VERSION SELECTION

▼ **GETTING STARTED**

   ANDROID

   CHROMEOS

▼ **LOGGING**

   PERFORMANCE LOG

MOBILE EMULATION

▼ **NEED HELP?**

   CHROME DOESN'T START OR CRASHES IMMEDIATELY

   CHROMEDRIVER CRASHES

   CLICKING ISSUES

   DEVTOOLS WINDOW KEEPS CLOSING

   OPERATION NOT SUPPORTED WHEN USING REMOTE DEBUGGING

Downloads

Current Releases

- If you are using Chrome version 77, please download ChromeDriver 77.0.3865.40
- If you are using Chrome version 76, please download ChromeDriver 76.0.3809.126
- If you are using Chrome version 75, please download ChromeDriver 75.0.3770.140
- For older version of Chrome, please see below for the version of ChromeDriver that supports it.

If you are using Chrome from Dev or Canary channel, please download ChromeDriver 77.0.3865.40. This is not officially supported, but in most cases it should work without major issues.

For more information on selecting the right version of ChromeDriver, please see the Version Selection page.

ChromeDriver 77.0.3865.40

Supports Chrome version 77

Includes the following changes over version 77.0.3865.10:

- Fixed two bugs in serializing and deserializing JavaScript objects
- Fixed handling of platformName: android while matching capabilities

For more details, please see the release notes.

It has to match with whatever version of Chrome that you're actually using.

So, go ahead and check your version of Chrome. You can *click* on the hamburger menu in the top right corner and then on "*Help*" > "*About Google Chrome*". There we can see what version of Chrome than you're on.

I'm on version 75 so I'm going to need to get the chromedriver that corresponds to this version.

On this page, I see that if I'm using Chrome version 75 to download the chromedriver for version 75, so I *click* that link and then again you have operating system options.

Index of /75.0.3770.140/

| Name	Last modified	Size	ETag
Parent Directory		-	
chromedriver_linux64.zip	2019-07-12 18:06:25	4.90MB	352fa37b124b9ddfd458439bbb877ac5
chromedriver_mac64.zip	2019-07-12 18:06:26	6.77MB	66f50e15bfcc94ab995bce3b53116d17
chromedriver_win32.zip	2019-07-12 18:06:28	4.36MB	57eda7e2343cb655259e94497c2b8d01
notes.txt	2019-07-12 18:06:32	0.00MB	ce86694b410ff3d02391241b82063bdf

I'm on Mac, so I choose the one for Mac. If you're on Linux or Windows, you choose the one for you.

I download this zip file and let's look inside of that zip. Okay, I have this download, so I'm just going to *double click* it to unzip it.

> **Opening Zip Files**
>
> If double clicking on the file doesn't work for you, you may need an unarchiver to unzip your files. You'll need to just search on Google for a way to unzip your files on your operating system and get a program to do so. Hopefully you already have one installed.

When I *double click* this, it expanded, and this is the executable file that was inside of this.
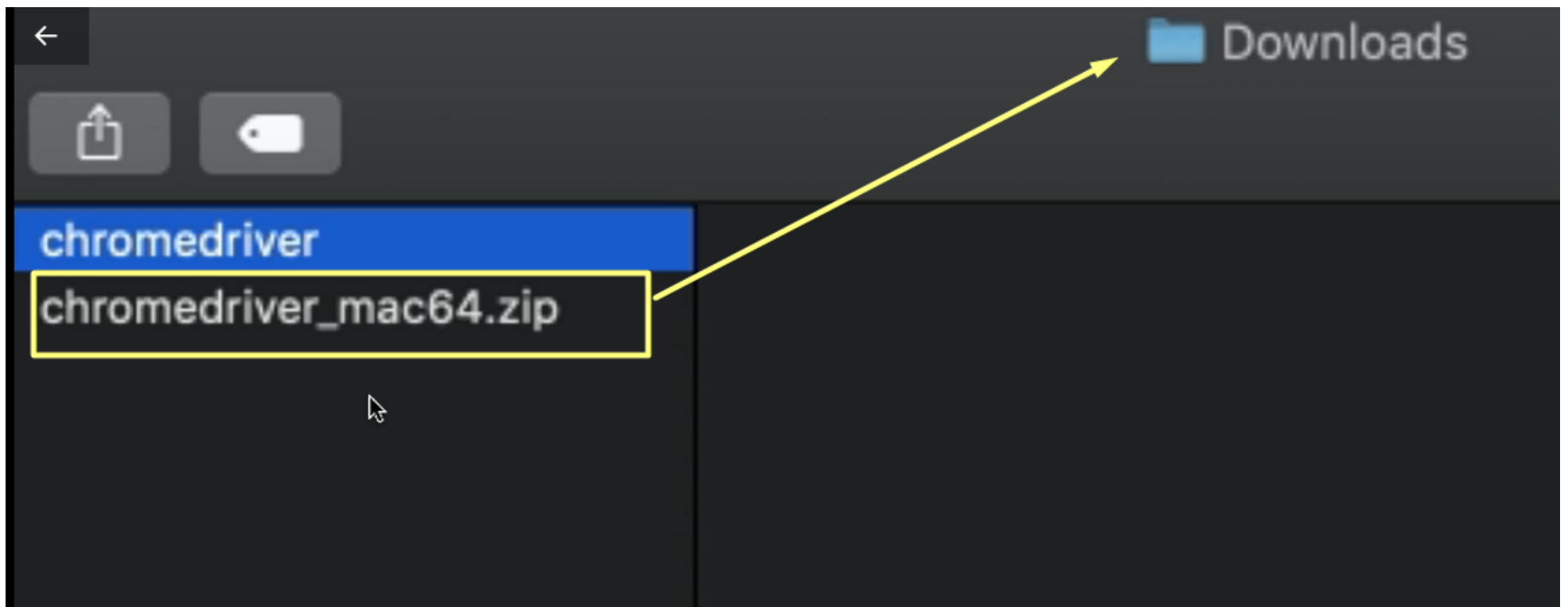

If you're on Windows, this will say "chromedriver.exe". Otherwise it just says "chromedriver".

We'll just keep this, and remember where it's stored [in my case in the *"Downloads"* folder] because we'll need to move it to a new location in a little while.

Creating a New Project

Okay, let's open the IntelliJ editor that you've downloaded.

We're going to create a new project, so *click* on "Create New Project" and it gives you some options here.
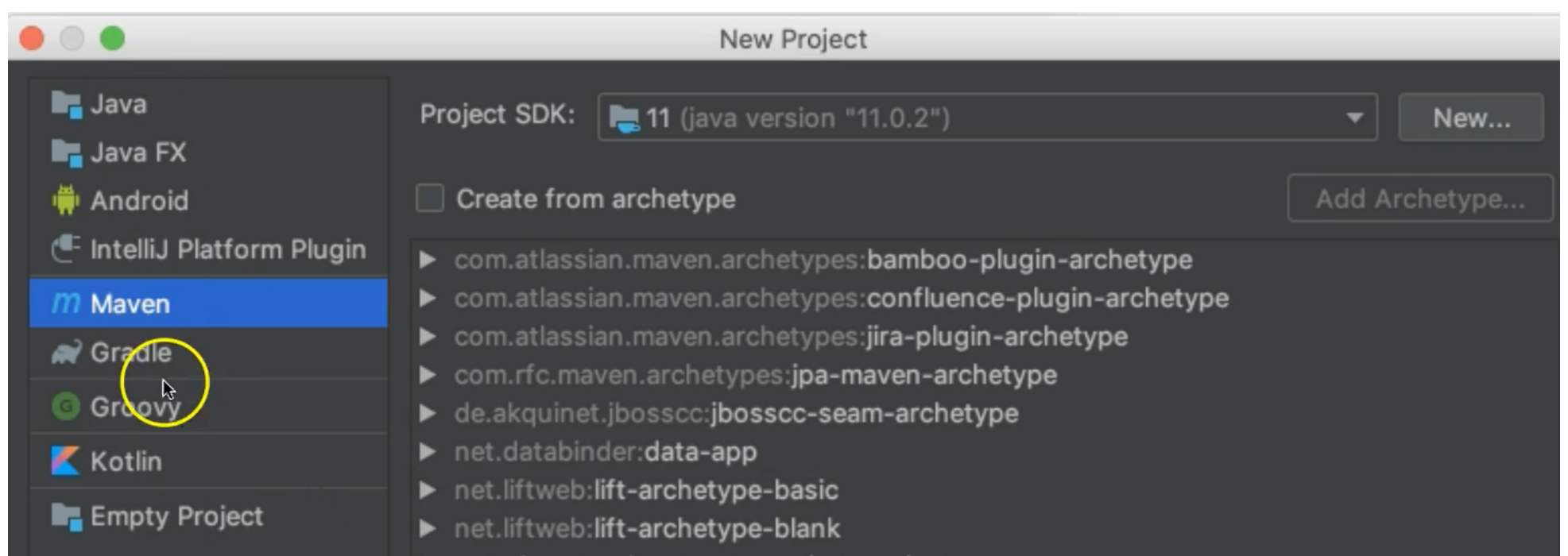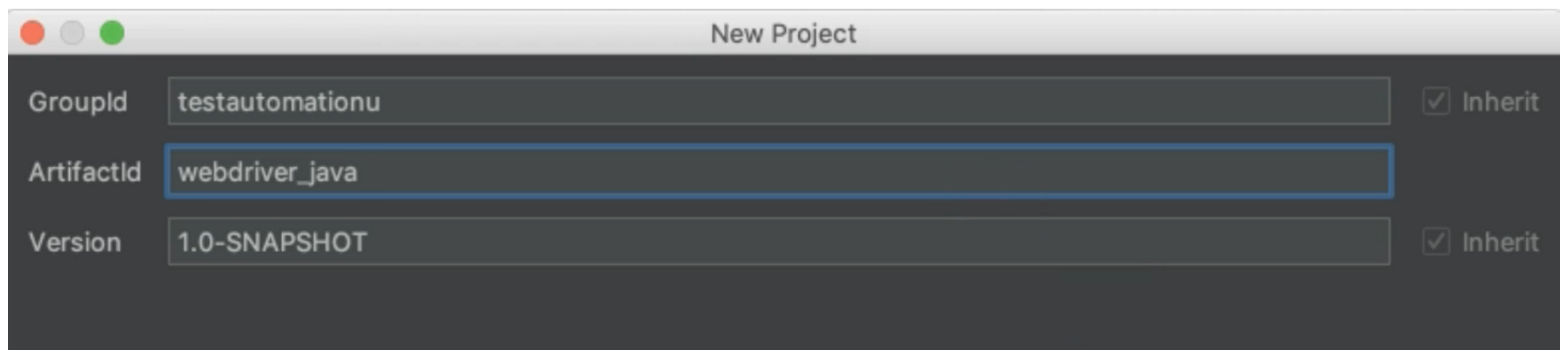

We want to create a Maven project.

If you want to use Gradle, that's fine as well. However, in this course we'll be using Maven.

For the Project SDK, I'll choose version 12.

Now I'm going to just *click "Next"*.

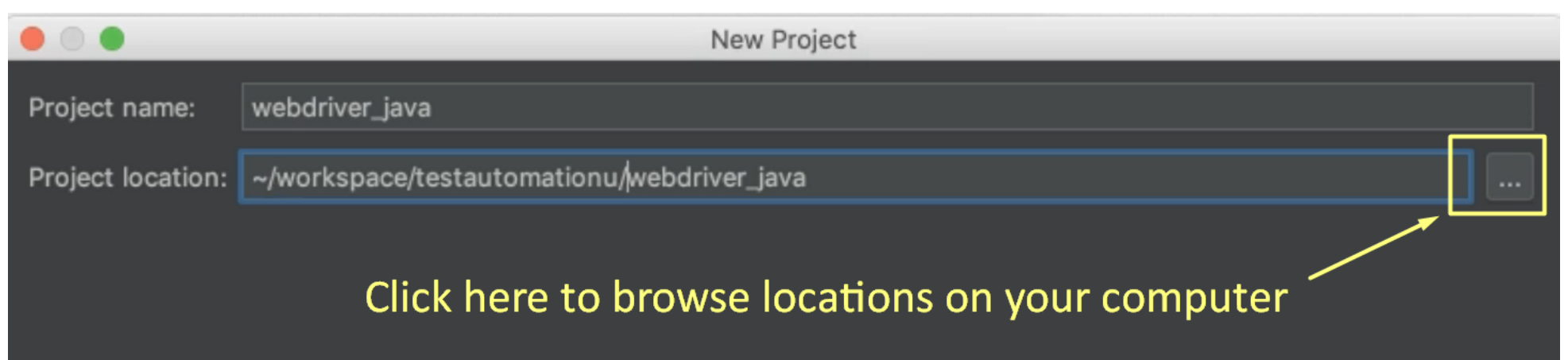**In here, they're going to ask you for a GroupId and an ArtifactId.**

- For my GroupId, I'm just going to say "testautomationu" — you can make this whatever you want.

- And then for the ArtifactId, that's the project, we'll just say "webdriver_java", and then *click "Next".*

Next it will ask you the location of where you want to store the project.

Choose wherever you want. Maybe outside of the download somewhere you can make a new directory.

To do that you simply type it in; or you can click on the right side to browse.
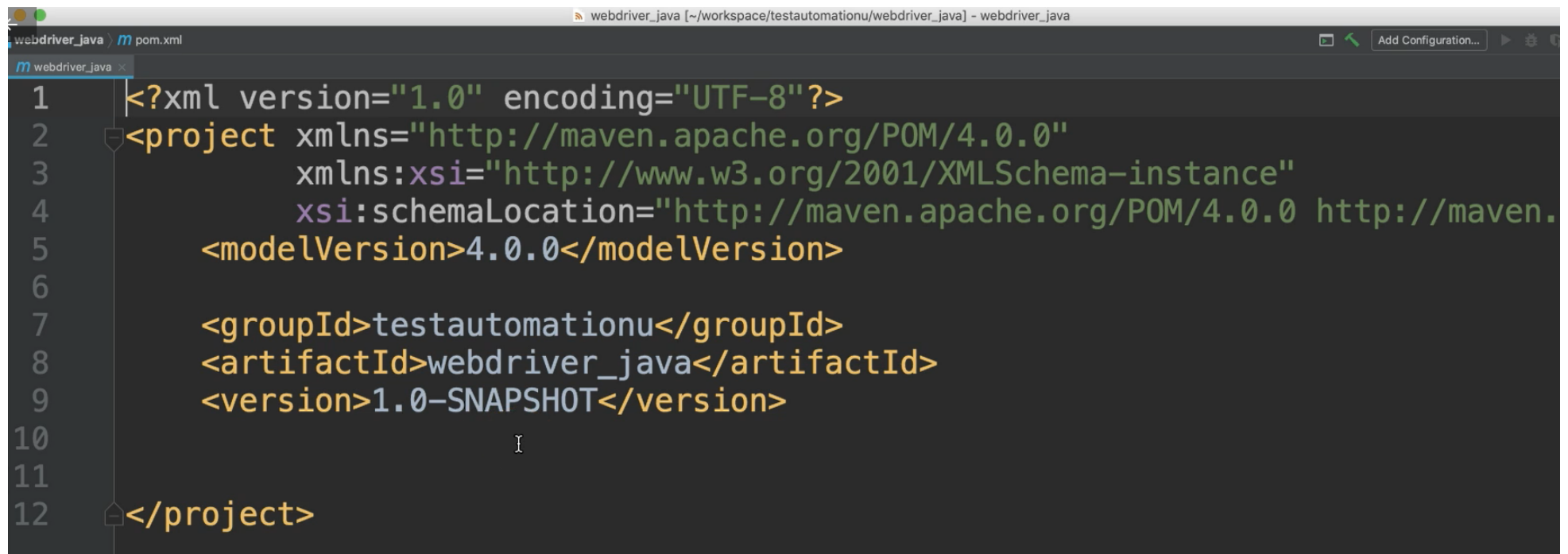

I'm going to put mine and my workspace and I will put it under "testautomationu" and then "webdriver_java" [workspace/ testautomationu/webdriver_java]

Once you have decided on your location, go ahead and *click "Finish".*

You'll get a prompt if this is the new location and it says the "Directory Does Not Exist". That's great because I want a new directory here. This is asking would you like us to create it? You say, *"OK".*

So here we see our project has opened and we have a couple of pop ups here.

- The first one is just explaining that Java 12 comes with some experimental features that have not yet made it to the library officially. Just go ahead and *click "Accept"*

- Then there's another pop up here that says: "Maven projects need to be imported". Tthere are 2 options: Import changes or Enable auto import. Let's *click "Enable auto import"*

```xml
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.
    <modelVersion>4.0.0</modelVersion>

    <groupId>testautomationu</groupId>
    <artifactId>webdriver_java</artifactId>
    <version>1.0-SNAPSHOT</version>


</project>
```

Now there are a couple of things we want to add into here — the first thing we want to add is the properties.

We are going to let IntelliJ know to compile our code using Java 12. To do that, I'm going to paste this bit of code here after the version information.
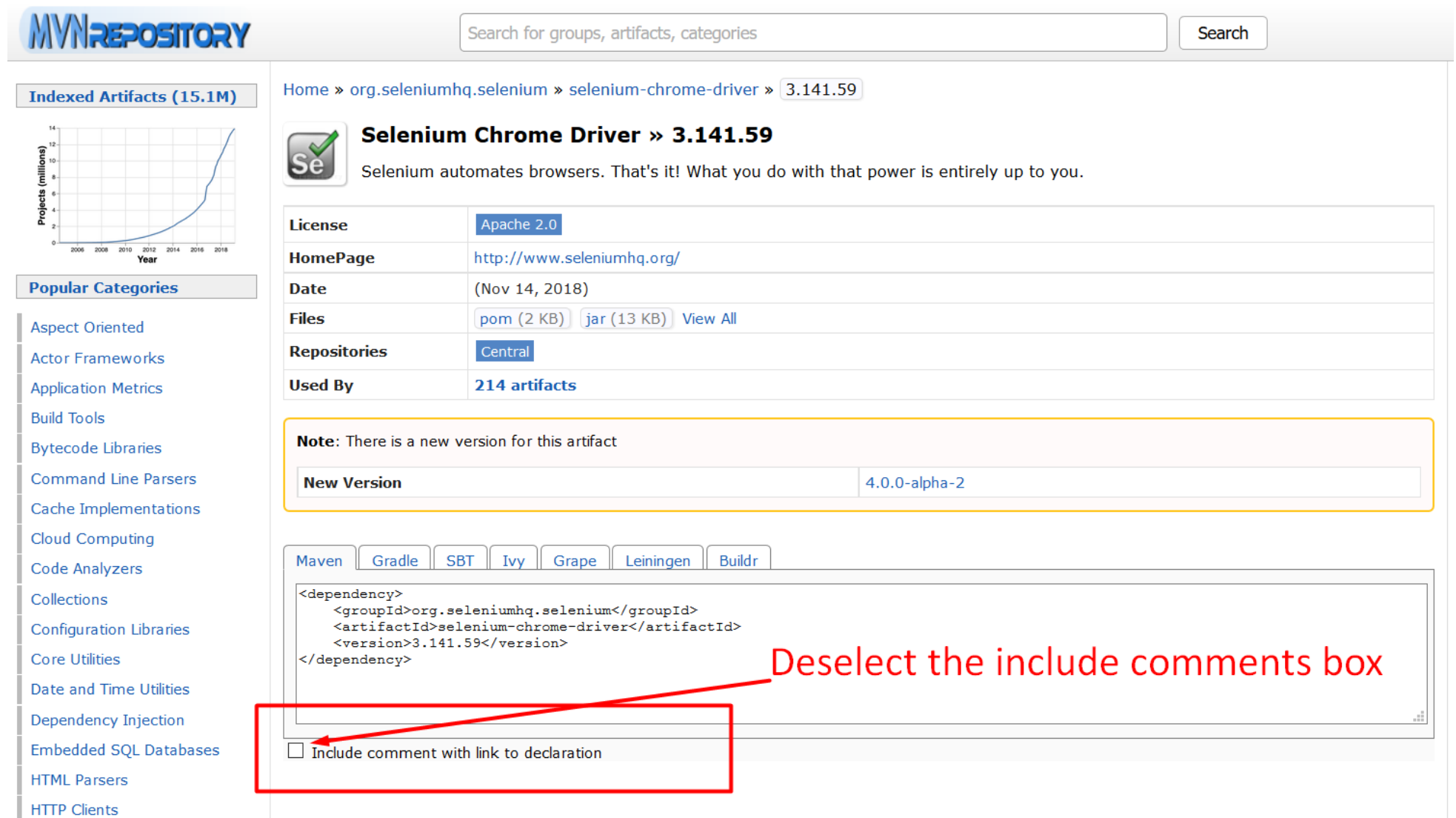
```xml
<properties>
    <maven.compiler.target>1.12</maven.compiler.target>
    <maven.compiler.source>1.12</maven.compiler.source>
</properties>
```

This is available on Github ⬀ . So, if you want to copy this you can do so as well.

The next thing we want to do is to add dependencies because we're using Selenium WebDriver.

There is one dependency that we need right now. We're using the chromedriver one so that's the Maven dependency. Let's go out to Maven and grab it. I've supplied the link for the Maven repository ⬀ in the resources section below.

I've come to the Selenium Chrome Driver version 3.141.59. Deselect the "include comment with link", because I don't need that.

Now we just copy this and let's go back to our project.

Okay, let's paste this under the properties and we notice that we get a little error.

That's because this needs to be in dependency section.

Let's make a dependency section and when you start typing it should autocomplete for you. Just select that one and then we're going to cut this and put it in between the dependencies in the closed dependencies tab.

This is our pom file:

pom.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-
4.0.0.xsd">

    <modelVersion>4.0.0</modelVersion>
    <groupId>testautomationu</groupId>
    <artifactId>webdriver_java</artifactId>
    <version>1.0-SNAPSHOT</version>

    <properties>
        <maven.compiler.target>1.12</maven.compiler.target>
        <maven.compiler.source>1.12</maven.compiler.source>
    </properties>

    <dependencies>
        <dependency>
            <groupId>org.seleniumhq.selenium</groupId>
            <artifactId>selenium-chrome-driver</artifactId>
            <version>3.141.59</version>
        </dependency>
    </dependencies>
</project>
```
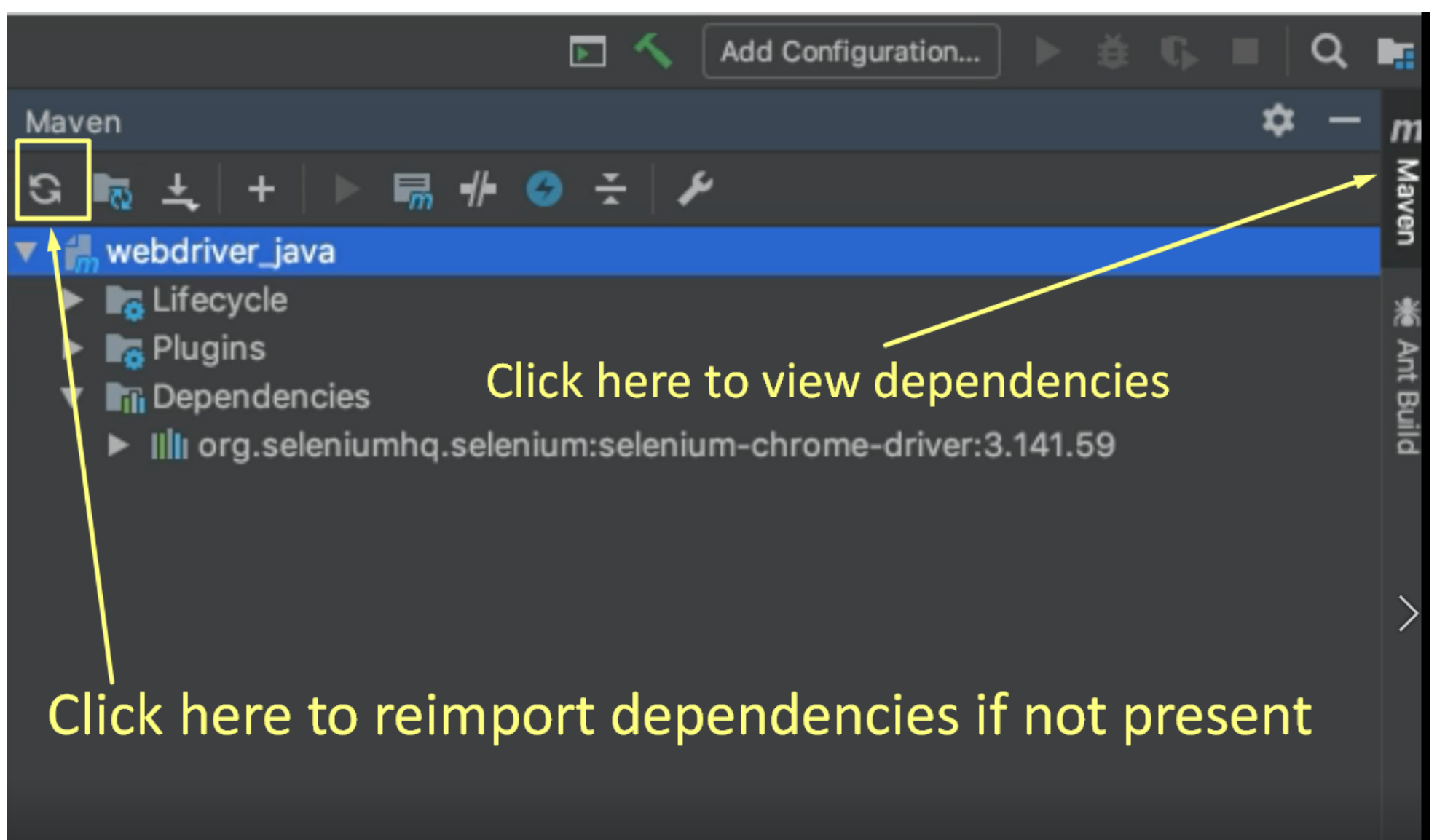
We want to go over here in the top right corner and you can *click Maven* and let's make sure that the dependency is there.


And yes, we see chromedriver 3.141, perfect. If this is not there, then you can just *click on this to re-import* and then that will read from here. And that should go ahead and download your dependency.

Okay. Once you have your dependency, you can go ahead and close that view.

There's just one more thing that we need to do to get set up.

Remember we downloaded the chromedriver executable? We want to put that inside of our project.

Go ahead to the project view, _click "Project" _here on the left, *right click* on the project name and we are going to *click "New" > "New Directory"*.
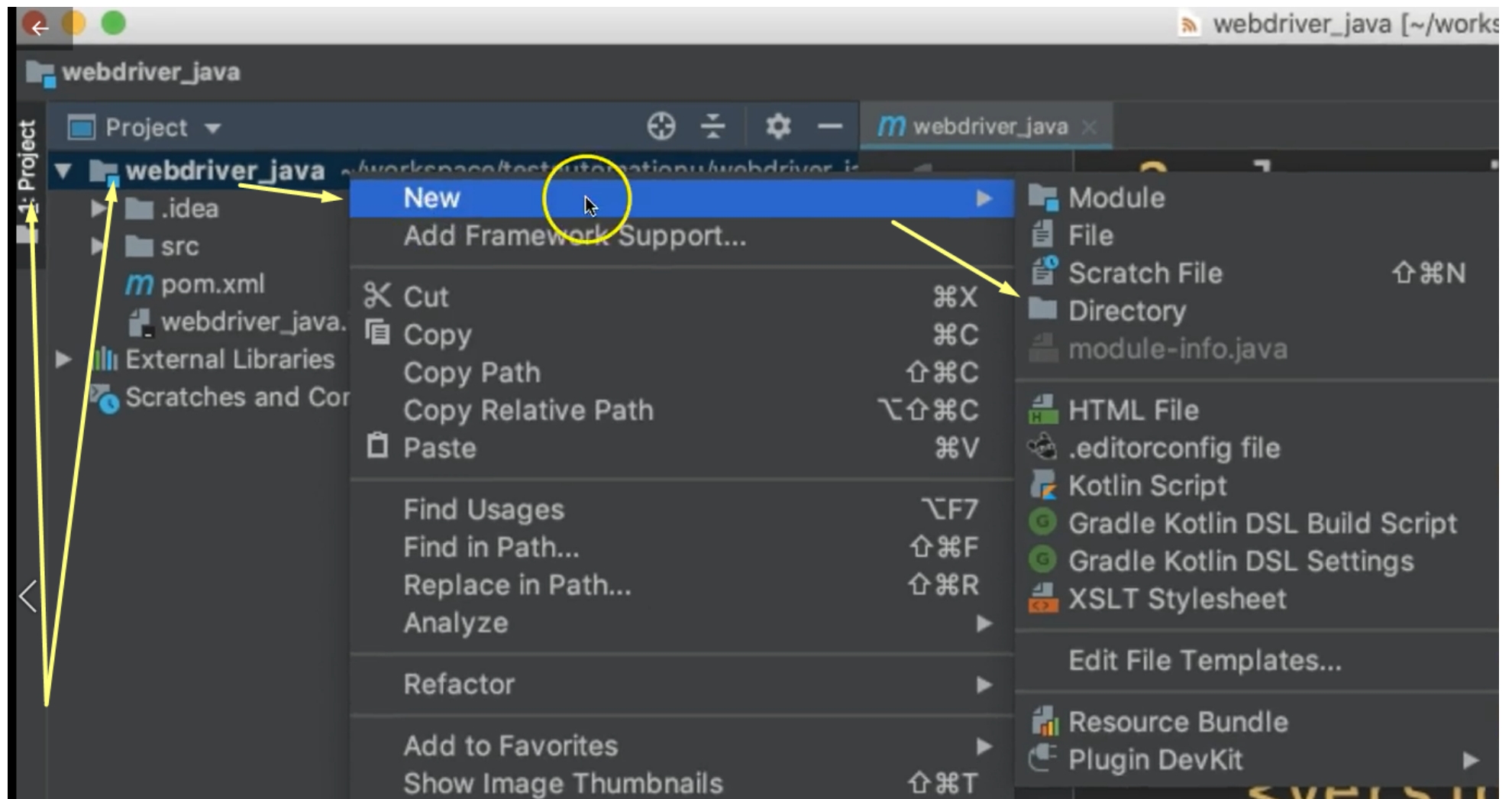
Let's call this "resources", in lowercase, and *click "OK"*.

This will create that directory for you.

Next we're going to move that chromedriver executable into this directory.

So here I'm just going to drag this over here to the resources directory and that will add it there.

We see a pop up and it asks us if this is where we want to move it. We *click "OK"*, and it's there.

And that might take a little while for that all to process. That's okay. Just be patient.

Okay, now we're all set up. Meet me in the next chapter and we'll begin writing code.

Resources

- Java
- IntelliJ
- Chrome Browser
- Chrome Driver Executable
- Maven Repository for Selenium Chrome Driver
- Course Code: Chapter 1

Quiz: +100 credits

1. Which programming language is needed to write scripts using the Selenium WebDriver Java API?

JavaScript

Java

PHP

Ruby

2. WebDriver scripts can only be written with the IntelliJ editor.

True

False

3. The driver executable must correspond to the appropriate version of the browser.

True

False

4. What's the name of the executable file needed to run WebDriver scripts on the Chrome browser?

chromerunner

chromebrowser

chromedriver

seleniumchrome

5. Además del archivo ejecutable, también debe incluir la dependencia de Selenium para ejecutar scripts de Selenium.

Verdadero

FALSO

<div style="text-align:center">

Entregar

</div>

Nota: 100 créditos son para completar con éxito en el primer intento; 50 créditos para el segundo intento y 25 créditos a partir de entonces.

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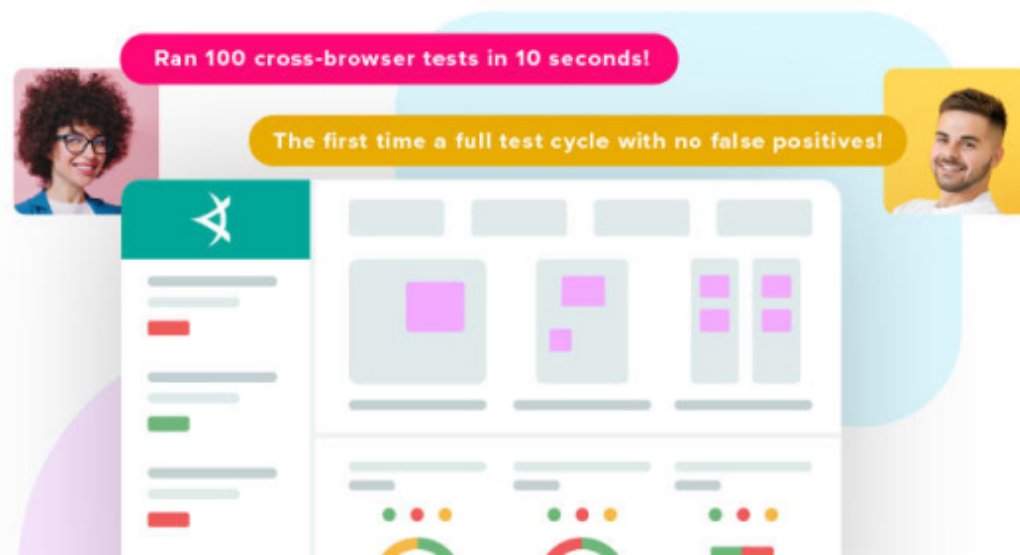
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