**BrowserStack**

* BrowserStack is a testing platform to test the websites & mobile Application.
* We can test a web application in multiple browser & mobile application in all the mobile devices without any real devices.
* BrowserStack is one of the cloud based tool used to do the cross-browser testing with the most accurate results.

**Configuring BrowserStack**

* Search BrowserStack on Google & open it.
* Login using valid credentials.
* Go to DashBoard & copy the username & access Key & save it for future use.
* We can explore various device like Windows, Android & iOS in Live & AppLive module of BrowserStack.
* We can inspect a particular element in virtual device.

**Automating Selenium Script in BrowserStack**

**public** **class** SeleniumBrowserStack {

**public** **static** **final** String ***UserName***="soumyasantasahoo\_0EBiCu";

**public** **static** **final** String ***AutomateKey***="2fRdT5HFxg3SqsAtH79q";

**public** **static** **final** String ***URL***= "https://"+***UserName***+":"+***AutomateKey***+"@hub-cloud.browserstack.com/wd/hub";

@Test

**public** **void** seleniumBrowserStack() **throws** Throwable

{

DesiredCapabilities dc=**new** DesiredCapabilities();

dc.setCapability("os", "Windows");

dc.setCapability("os\_version", "11");

dc.setCapability("browser", "chrome");

dc.setCapability("browser\_version", "114");

dc.setCapability("name", "Soumya-BrowserStack");

WebDriver driver=**new** RemoteWebDriver(**new** URL(***URL***),dc);

driver.manage().window().maximize();

driver.get("https://google.com");

driver.findElement(By.*name*("q")).sendKeys("Appium"+Keys.***ENTER***);

System.***out***.println(driver.getTitle());

Thread.*sleep*(3000);

driver.quit();

}

}

**OR**

@Test

**public** **void** webBrowserTesting() **throws** Throwable {

ChromeOptions browserOptions = **new** ChromeOptions();

browserOptions.setPlatformName("Windows 11");

browserOptions.setBrowserVersion("latest");

HashMap<String, Object> Options = **new** HashMap();

// Options.put("username", username);

// Options.put("accessKey", accessKey);

Options.put("build", "selenium-build-GME35");

Options.put("name", "facebook");

browserOptions.setCapability("bstack:optionss", Options);

RemoteWebDriver driver = **new** RemoteWebDriver(**new** URL(***url***), browserOptions);

driver.get("https://www.facebook.com/");

System.***out***.println(driver.getTitle());

}

**Automating Mobile Browser Using BrowserStack**

**public** **class** MobileBrowser {

**public** **static** **final** String ***username*** = "madhumithajagana\_K7Q9xH";

**public** **static** **final** String ***accessKey*** = "p5YjWDgqySz6mj4jMe8z";

**public** **static** **final** String ***URL*** = "https://"+***username***+":"+***accessKey***+"@hub-cloud.browserstack.com/wd/hub";

@Test

**public** **void** mobileBrowser() **throws** MalformedURLException {

MutableCapabilities capabilities = **new** MutableCapabilities();

HashMap<String, Object> browserstackOptions = **new** HashMap<String, Object>();

browserstackOptions.put("browserName", "chrome");

browserstackOptions.put("deviceName", "Google Pixel 6 Pro");

browserstackOptions.put("realMobile", "true");

browserstackOptions.put("osVersion", "13");

capabilities.setCapability("bstack:options", browserstackOptions);

WebDriver driver = **new** RemoteWebDriver(**new** java.net.URL(***URL***), capabilities);

driver.get("https://www.browserstack.com/");

System.***out***.println(driver.getTitle());

}

}

**Automating Mobile Applications using BrowserStack**

* For Automating Mobile application through browserstack we need to upload the Mobile app in BrowserStack using below command

curl -u “UserName:AccessKey” -X POST <https://api-cloud.browserstack.com/app-automate/upload> -F “file=@path to url .apk file”

* After using the command we will get app url for BrowserStack and we have to use that particular url in our code.

**public** **class** AppiumBrowserStack2 {

**public** **static** **final** String ***UserName***="soumyasantasahoo\_0EBiCu";

**public** **static** **final** String ***AutomateKey***="2fRdT5HFxg3SqsAtH79q";

**public** **static** **final** String ***URL***= "https://"+***UserName***+":"+***AutomateKey***+"@hub-cloud.browserstack.com/wd/hub";

@Test

**public** **void** setUp() **throws** Throwable

{

DesiredCapabilities dc=**new** DesiredCapabilities();

dc.setCapability(MobileCapabilityType.***DEVICE\_NAME***, "Samsung Galaxy S21");

dc.setCapability("os\_version", "11.0");

dc.setCapability("Project", "API Demo app Automation");

dc.setCapability("build", "Real Device Script");

dc.setCapability("name", "Appium-BrowserStack");

dc.setCapability("app", "bs://2b956d6d1a6351aa69de8c0effa0d92b683e2fc7");

AndroidDriver driver=**new** AndroidDriver(**new** URL(***URL***), dc);

Thread.*sleep*(3000);

driver.quit();

}

}

* We can inspect any particular mobile element using Appium inspector but we have to configure BrowserStack in Appium Inspector.

**public** **class** AppiumBrowserStack3 {

**public** **static** **final** String ***UserName***="soumyasantasahoo\_0EBiCu";

**public** **static** **final** String ***AutomateKey***="2fRdT5HFxg3SqsAtH79q";

**public** **static** **final** String ***URL***= "https://"+***UserName***+":"+***AutomateKey***+"@hub-cloud.browserstack.com/wd/hub";

AndroidDriver driver;

@BeforeTest

**public** **void** setUp() **throws** Throwable

{

DesiredCapabilities dc=**new** DesiredCapabilities();

dc.setCapability(MobileCapabilityType.***DEVICE\_NAME***, "Samsung Galaxy S21");

dc.setCapability("os\_version", "11.0");

dc.setCapability("Project", "API Demo app Automation");

dc.setCapability("build", "Real Device Script");

dc.setCapability("name", "Appium-BrowserStack");

dc.setCapability("app", "bs://2b956d6d1a6351aa69de8c0effa0d92b683e2fc7");

driver=**new** AndroidDriver(**new** URL(***URL***), dc);

}

@Test

**public** **void** apiDemoAutomate()

{

driver.findElement(AppiumBy.*accessibilityId*("Views")).click();

}

@AfterTest

**public** **void** tearDown() **throws** Throwable

{

Thread.*sleep*(3000);

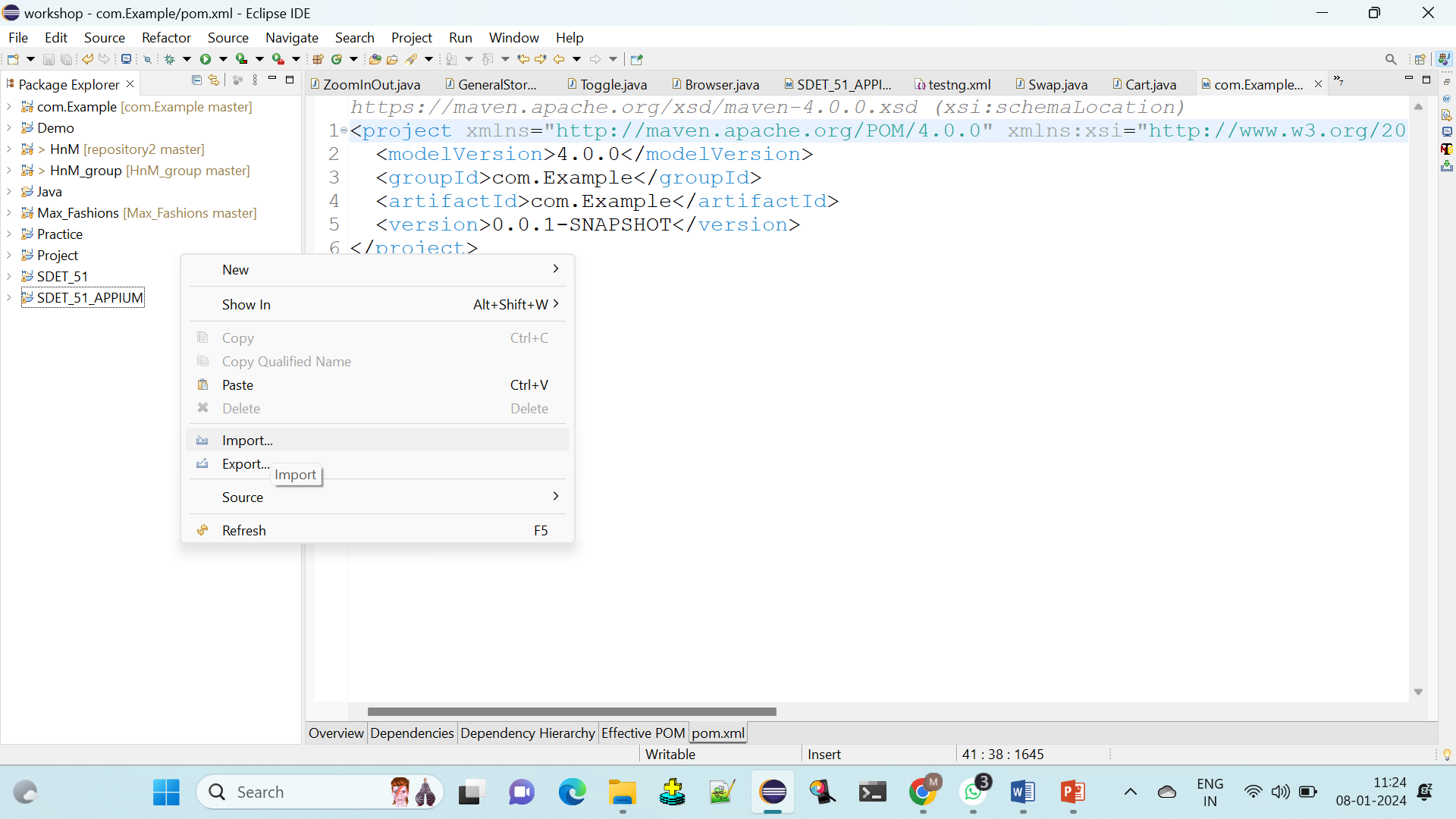
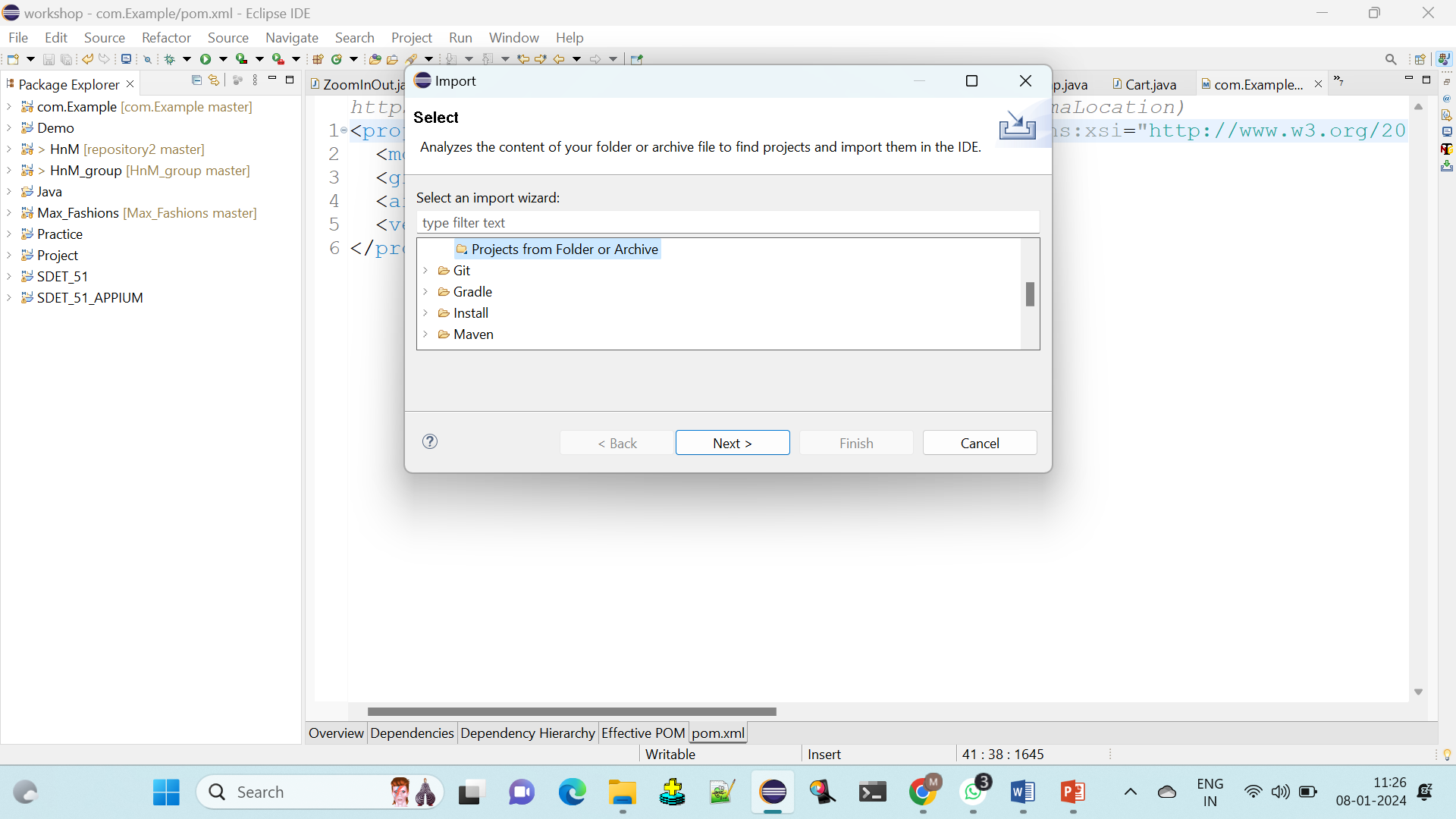
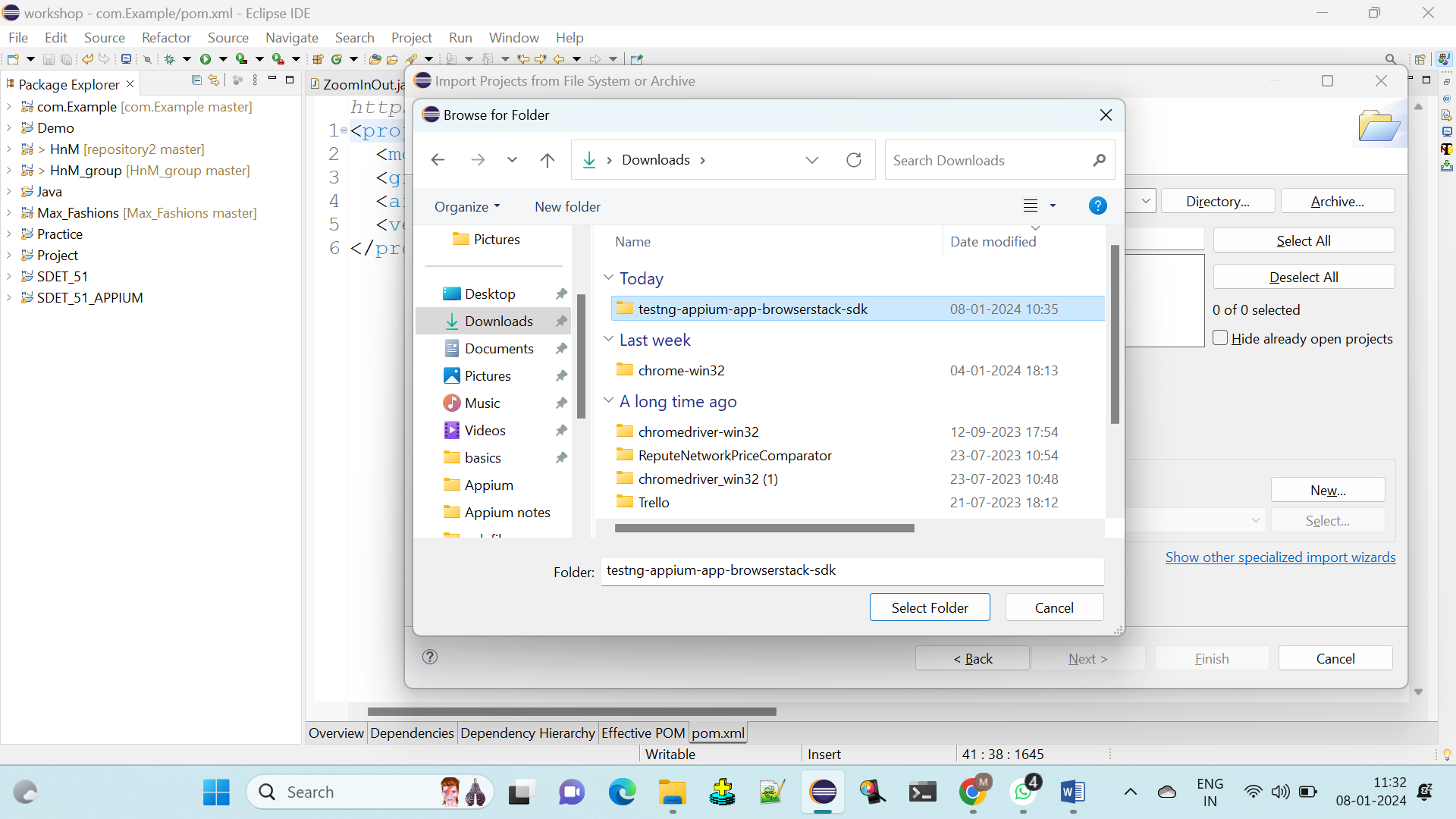
driver.quit();

}

}

**Parallel execution in BrowserStack**

To run sample project download the sample project from browser stack website. Once after downloading sample zip file, extract it. Then go to eclipse right click and select import and click on project from folder or archive and import the project.

Then go to respective .yml file for android and ios. And configure them by changing the username accesskey and platforms (which you can get from browserstack) and save it. Then go to pom.xml and run it as maven test and check the result in browserstack.