

Preparations for online Selenium and Appium Java training

If your Perfecto on-site training is coming up soon, this quick guide will get you connected and ready to start. We suggest that you complete all steps and inform your manager at least 2 days before the training date that you are all set up. If you encounter any problem, contact your trainer for assistance.

The training facilities section needs to be arranged by the manager who booked the training. The Perfecto environment section needs to be performed by all attendees.

The training sessions begin with the assumption that all attendees have a working environment.

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Knowledge check

The information in this section helps us assess the skill level of the training participants.

Java skills

Java knowledge is mandatory for our training; we require that at least part of the team is comfortable with Java.

We ask that you provide a list of the training participants to your Perfecto Customer Support Manager. We will then mail them a short quiz designed to test their Java skills.

If the skills required are unavailable, we can provide guidance and discuss how to get your team ramped up to work with Perfecto.

Training agenda

Different organizations have teams with varying skill types. This short checklist helps us understand what your team knows so we can focus on the most appropriate content.

Following is the training agenda. Some of it is unique to Perfecto and mandatory. Some of it highlights general knowledge that may be familiar to some teams.

We ask that the team manager fill out the following table once for the entire team by marking the skill level of the team for each item on a scale of 1-5, with 1 being unfamiliar and 5 expert level.

Topic	Details	Knowledge Level	Customer Comments
Introduction to Perfecto			
Environment Setup Troubleshooting			
Object Recognition This module teaches objects from the ground up. Check the items your team already knows:	<input type="checkbox"/> XML – structure, nodes, attributes		
	<input type="checkbox"/> XPath – introduction and concept		
	<input type="checkbox"/> Advanced XPath – contain statement, logic, XPath 2.0		
Objects (continued)	<input type="checkbox"/> Automation contexts – Native, Web & Hybrid		
	<input type="checkbox"/> Perfecto's Object Spy		
Using Selenium capabilities to leverage Perfecto			
Visual Analysis			
Advanced Objects	<input type="checkbox"/> Selenium methods for finding objects		
	<input type="checkbox"/> XPath tips		

	<input type="checkbox"/> Object Frameworks		
Selenium waits – implied, implicit, fluent			
Perfecto's Reporting application			

Network connection

- Access to the company wireless network is required.
The required onsite services must not be blocked by security.
- Internet connection: 250 kbps of bandwidth per device with low latency and network
- Connectivity over TCP port 1935 (RTMP), 80 (HTTP), and 443 (HTTPS).
- Access to the Perfecto Cloud
- Other relevant online software services (performance tools, Monitoring platforms, relevant download sites, and so on)
- If the instructor cannot be added to the company network, a guest network must be provided. The instructor must have stable network connectivity.

The training is hands-on. The strength of the connection should assume that all attendees access the network at the same time for training exercises.

Note: In the case of network difficulties, a network admin should be available to help.

Perfecto environment setup for users

The following items must be set up beforehand on all workstations.

Lab credentials and logins

1. Contact your system administrator and request a username for Perfecto. You will receive a username, password, and the URL of your Perfecto cloud.
2. Open a browser and navigate to the URL.
3. After you log in, under **Manual Testing**, click **OPEN DEVICE**.
4. If this step fails, contact your system administrator or customer success manager.

The screenshot shows the Perfecto Manual Testing interface. At the top, there's a navigation bar with the Perfecto logo, 'Manual Testing' dropdown, and utility icons. Below is a search bar and a 'MY DEVICES' section. On the left, there's a 'Folders' sidebar with categories: Recent (12 devices), All mobile (51 devices), Android (25 devices), iOS (26 devices), and Web (10 licenses). The main area displays 'Recent (12 devices)' in a grid. Each device card includes a mobile device icon, name, OS version, and an 'AVAILABLE' status with an 'OPEN' button. The devices listed are: Apple iPhone-XS (12.1.4), Apple iPhone-8 (12.4.1), Apple iPhone-6S (13.3), Apple iPhone-6S (14.0), Samsung Galaxy S9 (8.0.0), Motorola Moto G6 (8.0.0), and several Windows VMs with various OS versions (10, 16, 84, 80, 77, 76).

Java

Install Java JRE and JDK on your workstation. If you are unsure if it is installed, open the command line and type `java -version`.

If you see something similar to the following, you are good to go. If not, download from <https://java.com/en/download> and follow the online instructions until you can see Java working from the command line.

```

C:\Windows\System32>java -version
java version "1.8.0_131"
Java(TM) SE Runtime Environment (build 1.8.0_131-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.131-b11, mixed mode)

```

Java IDE

Writing tests with Perfecto requires writing Selenium/Appium code in an IDE. We will cover this in the training. For now, all you need is select and set up the IDE of your choice.

Perfecto supports the major IDEs in the market, Eclipse and IntelliJIDEA. Both offer the same functionality.



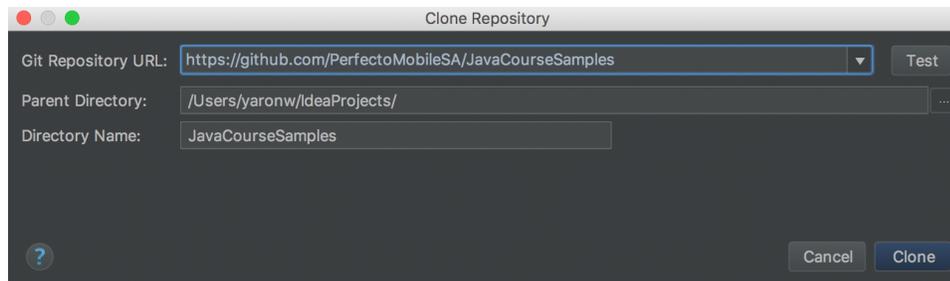
To set up your IDE, select the IDE you prefer and follow the IDE-specific instructions:

1. Download and install the free community edition: <https://www.jetbrains.com/idea/download/>
2. Open IntelliJ and validate that it opens without errors.
3. Set up your first project, as follows:

- a. To import a project from GitHub, click **Check out from Version Control**.

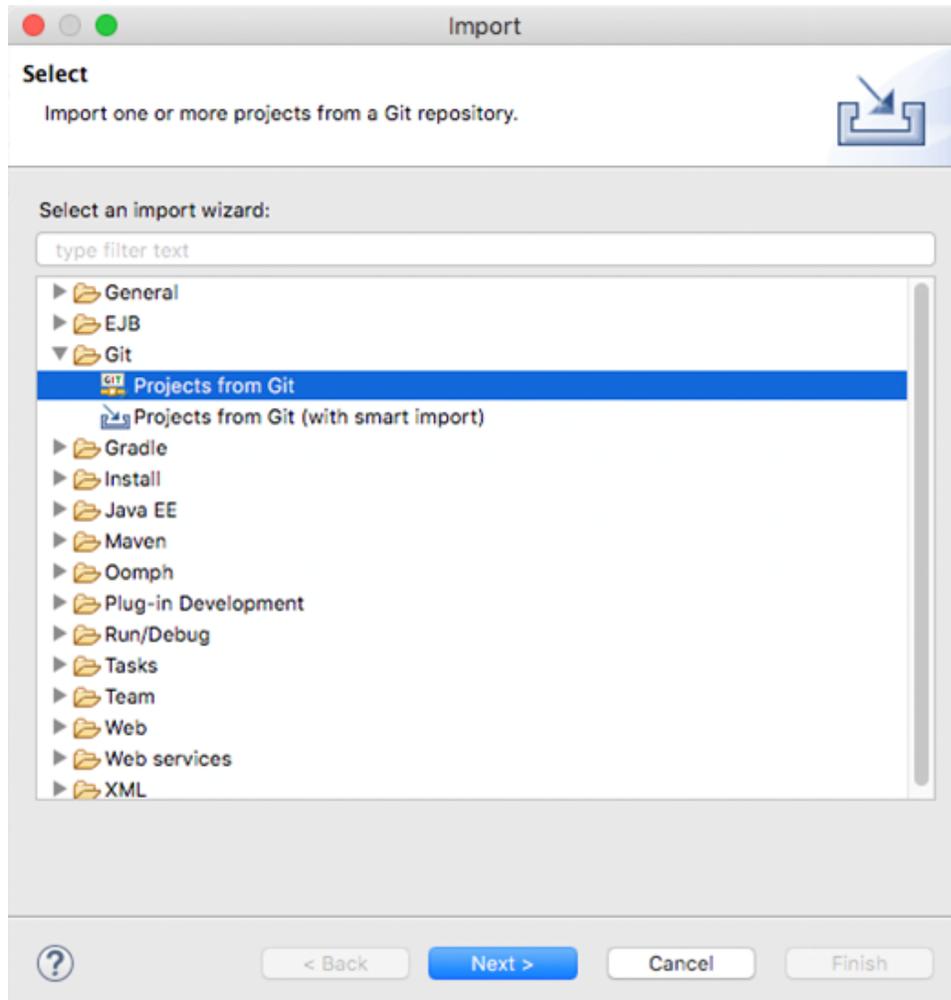


- b. Enter the URL of the course repository: <https://github.com/PerfectoMobileSA/JavaCourseSamples>
- c. Clone the repository and open the project.



1. Download Eclipse from <https://www.eclipse.org/downloads>.
2. Open Eclipse and validate that it opens without errors.
3. Set up your first project, as follows:

- a. Go to **File > Import project from file system >** and then select **Git > Projects from Git**.



- b. Select **Clone URI** and enter the following: <https://github.com/PerfectoMobileSA/JavaCourseSamples>
c. Open the project

Run your first test

We now have an IDE installed, and our project is open. Next, we need to add credentials and run our first test, as follows:

1. Open the `Setup` class.
2. Insert your cloud name into the code, as follows:

```
String cloudName = "<<cloud name>>";
```

3. Insert your security token into the code. The security token is the authentication used by Perfecto. To generate a token, see [Generate security tokens](#).

```
String securityToken = "<<security token>>";
```

4. Go to the `testng_setup.xml` file and run it.

The Setup test should execute successfully. The console log should include a link to the execution report.

Appium Desktop

Working with native applications requires you to utilize Appium Inspector. For instructions on working with Appium Inspector, including information on the supported versions, see [Appium Inspector](#).

XPath

Selenium and Appium scripts work with objects that are identified with an XPath expression. We will cover this extensively in the training.

Right now, all we need to do is ensure you have the Google Chrome browser installed, which provides built-in support for XPath.

You are now all set up with a working environment! We look forward to meeting you in the training.

Troubleshoot common issues

This section addresses issues you might encounter as you set up your environment. In addition, you can always refer to the information provided in the [Perfecto documentation portal](#).

Following is a list of common issues:

- **Proxy:** In some organizations, access to the internet is set up via a proxy. For configuration information, see [Use Java RemoteWebDriver with a proxy](#)
- **Network requirements:** Perfecto requires an internet connection of 250 kbps of bandwidth per device with low latency and network connectivity over TCP ports 1935 (RTMP), 80 (HTTP), and 443 (HTTPS).

Get help

If you encounter an issue you cannot solve, follow these instructions:

- Issues relating to Perfecto credentials and permissions: Contact your system administrator or your Perfecto Customer Success Manager.
- Java installation issues: Contact your IT department.
- Other issues: Open a case with [Perfecto Support](#). In the case, specify the following:
 - Your trainer's name and the date of your training
 - Details of the problem encountered
 - Which steps in this guide succeeded and the step where you got stuck