

# SELENIUM MASTER CLASS



ToC

Automation Testing using Selenium+Java and TestNG framework



### Document Revision History

Date	Revision No.	Author	Summary of Changes
07-Aug-2023	1.0	Poornima Krishnan	Initial Version

## Contents

Introduction.....	3
Pre-requisites for Master Class: .....	3
Outcome:.....	3
Software's to be installed (Pre-requisites).....	4
Step 1 – Install Java Software Development Kit (JDK).....	4
Step 2 – Install Eclipse IDE.....	4
Step 3 – Install Maven in Eclipse IDE .....	7
Step 4– Install TestNG .....	8

## Introduction

Selenium Master Class introduces you to all the essentials Component of Automation Testing using Selenium+Java.

### Pre-requisites for Master Class:

- Participants should have basic knowledge on Core Java
- Participants must complete min 70% pathway of Selenium ( <https://degreed.com/pathway/e9kmjz4w8o?path=selenium> ) learning or complete the Post Assessment Test of pathway

Duration: 8 hours

Following topics of Selenium will be covered in the Master class

- Introduction to Selenium
- Record and Playback using Selenium IDE
- Webdriver
- Selenium locators
- Complex locators – CSS , Xpath
- Synchronisation
- TestNG Framework
- Annotations used in TestNG
- Selenium Automation Framework
- Page Object Model and Page Factory in Selenium
- Extent Reports
- Parametrization in Selenium
- Data Driven Testing – From Excel file
- Parallel Execution in Selenium
- Selenium Grid
- Hub and Node configuration
- Running Selenium Tests using Grid

### Outcome:

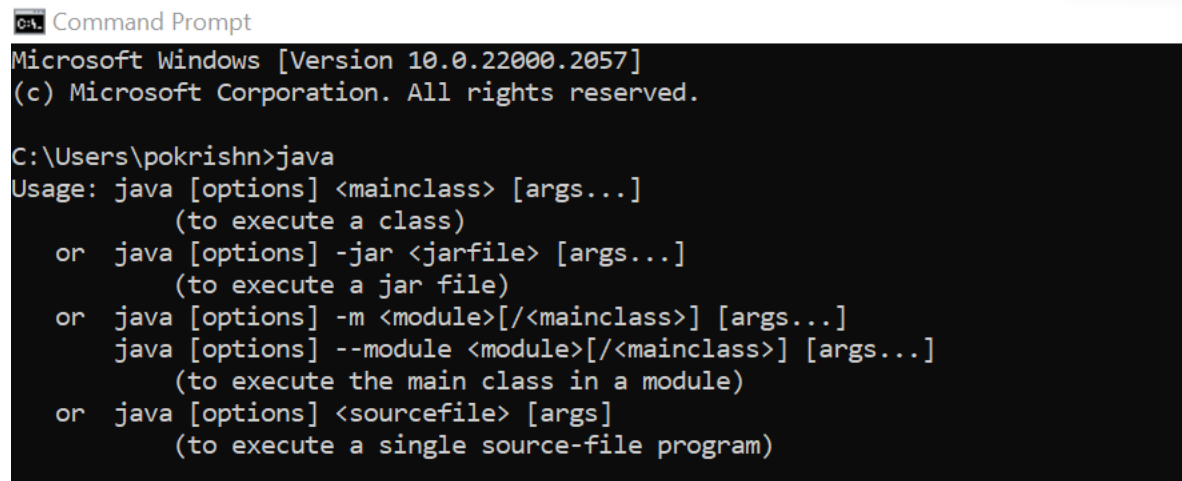
After completion of this master class, participants will understand and develop a Selenium Automation Framework using Java and TestNG Framework

## Software's to be installed (Pre-requisites)

### Step 1 – Install Java Software Development Kit (JDK)

Download and install the **Java Software Development Kit (JDK)** from [here](#). This JDK version comes bundled with Java Runtime Environment (JRE), so you do not need to download and install the JRE separately.

Once installation is complete, open command prompt and type "java". If you see the following screen you are good to move to the next step.

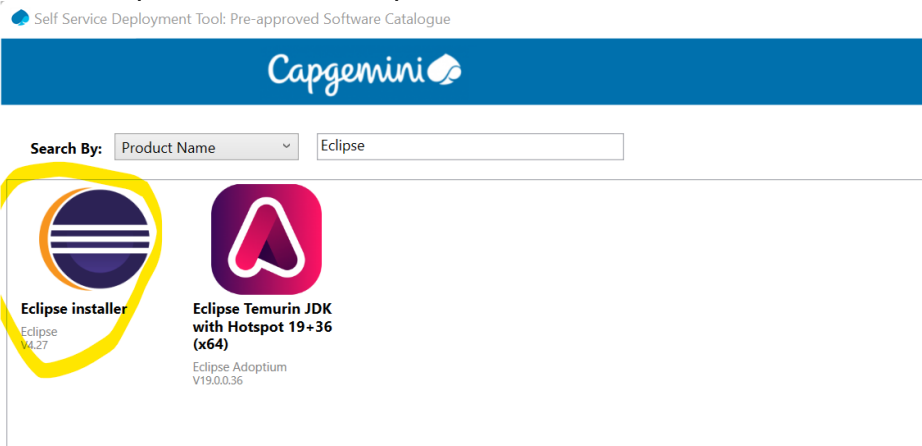


```

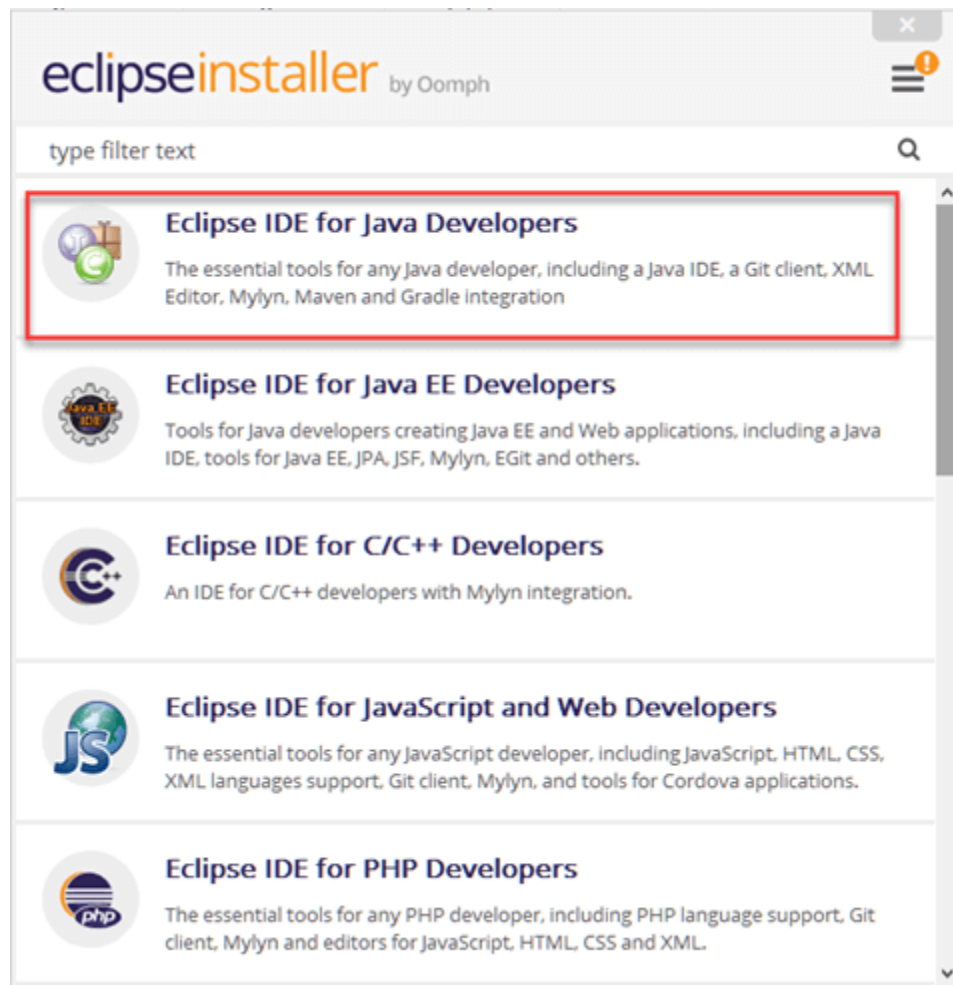
C:\Users\pokrishn>java
Usage: java [options] <mainclass> [args...]
        (to execute a class)
or  java [options] -jar <jarfile> [args...]
        (to execute a jar file)
or  java [options] -m <module>[/<mainclass>] [args...]
     java [options] --module <module>[/<mainclass>] [args...]
        (to execute the main class in a module)
or  java [options] <sourcefile> [args]
        (to execute a single source-file program)
  
```

### Step 2 – Install Eclipse IDE

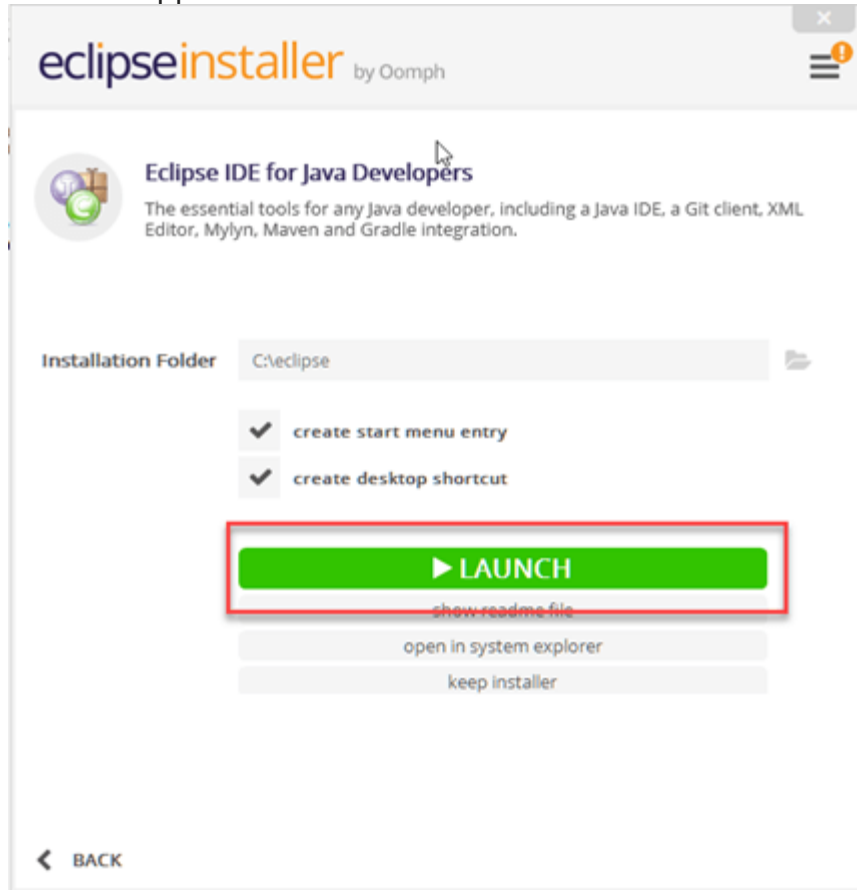
1. Download the latest version of **"Eclipse IDE for Java Developers"** from Software Central.
2. Navigate to Software Central -> Pre-approved Catalogue Launch Self Service Tool.
3. Click on Install.
4. Select Eclipse Installer and proceed with installation.



5. A new window will open. Click Eclipse IDE for Java Developers.

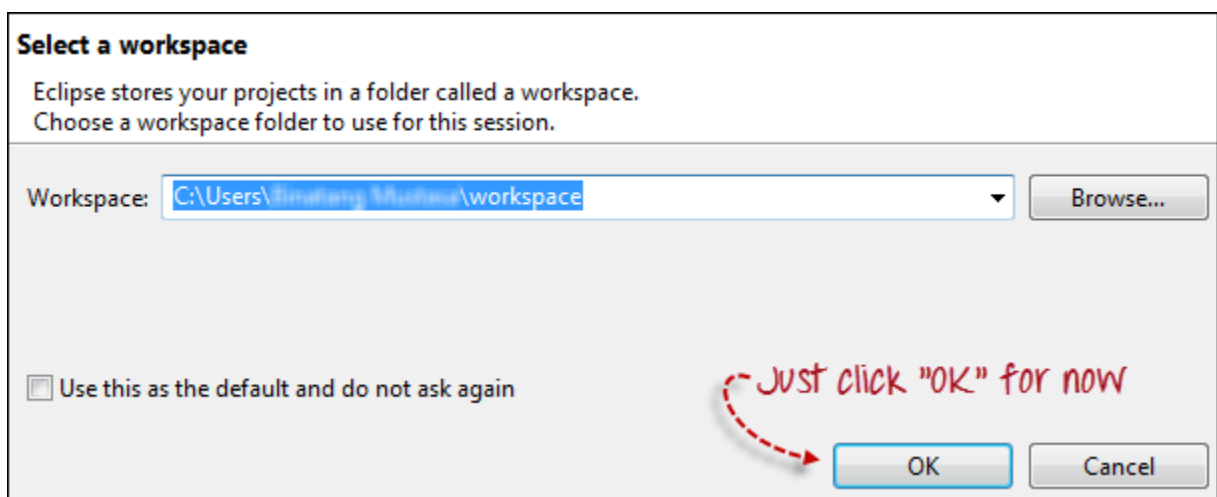


6. After successful completion of the installation procedure, a window will appear. On that window click on Launch.



This will start eclipse IDE for you.

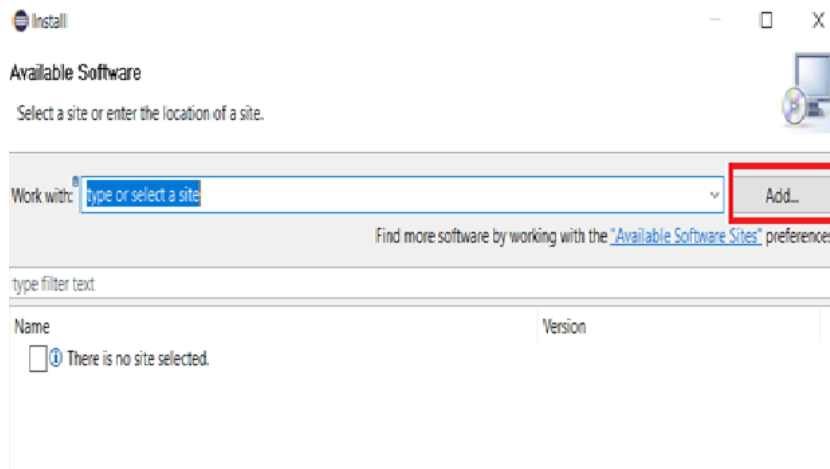
7. Launch the eclipse installed in above step.  
8. When asked to select for a workspace, select as required.



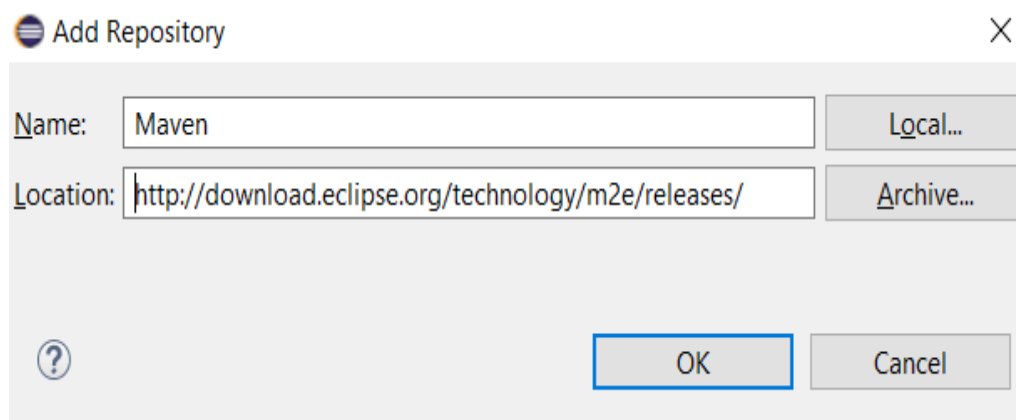
### Step 3 – Install Maven in Eclipse IDE

**Step 1:** Click on Help from the top menu in Eclipse and select 'Install New Software'

**Step 2:** On the newly opened window, click on the Add button.



**Step 3:** In the name text box type "Maven", and in the location text box type "http://download.eclipse.org/technology/m2e/releases/". This URL is the location from where Maven can be downloaded.



**Step 4:** A checkbox will appear in the pop window, Check the check-box and click on the Next button.

**Step 5:** Wait for a few minutes for the window to complete its process.

**Step 6:** Keep the default settings and click on the Next button.

**Step 7:** Accept the Terms & Conditions and click on Finish.

**Step 8:** Wait for the installation to finish and restart Eclipse.



## Step 4– Install TestNG

1. Navigate to <https://testng.org/doc/>
2. Click on the Eclipse appearing on the menu bar.
3. Click on the Installation appearing on the top of the Table of Contents, and then click on the **"install the plug-in"**
4. Scroll down to Eclipse plug-in section. Copy the URL as highlighted below from the Install from update site section

### Eclipse plug-in

**Java 1.7+ is required** for running the TestNG for Eclipse plugin.

**Eclipse 4.2 and above is required.** Eclipse 3.x is NOT supported any more, please update your Eclipse to 4.2 or above.

You can use either the [Eclipse Marketplace](#) or the update site:

#### Install via Eclipse Marketplace

Go to the [TestNG page on the Eclipse Market Place](#) and drag the icon called "Install" onto your workspace.

#### Install from update site

- Select *Help / Install New Software...*
- Enter the update site URL in "Work with:" field:
  - Update site for release: <https://testng.org/testng-eclipse-update-site>.
- Make sure the check box next to URL is checked and click *Next*.
- Eclipse will then guide you through the process.

You can also install older versions of the plug-ins [here](#). Note that the URL's on this page are update sites as well, **not** direct d

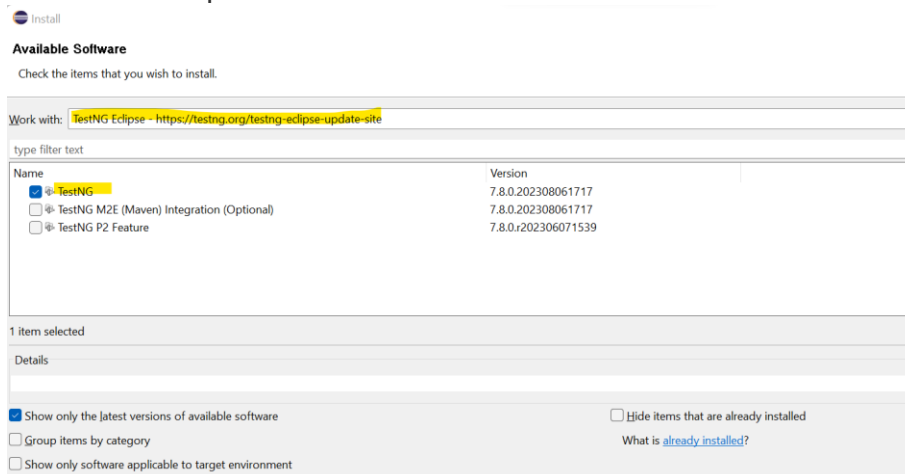
### Build TestNG from source code

TestNG is also [hosted on GitHub](#), where you can download the source and build the distribution yourself:

```
$ git clone git://github.com/cbeust/testng.git
$ cd testng
$ ./gradlew build
```

You will then find the jar file in the testng/build/libs directory

5. Open Eclipse. Click on Help appearing on the menu bar and then click on the Install New Software.
6. Paste the URL copied in Step 4 in the Work With text box, then press the Enter.
7. Select the required checkboxes and click Next.



8. Accept the license and then click on the Finish.

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