Installing Eclipse (Oxygen)
2017 Fall

Eclipse is the an open source integrated development environment (IDE) built to be extensible and to support perspectives depending on the type of task you are currently working with. A large number of various configurations can be downloaded from the front page and there is a thriving ecosystem of plugins and extensions available from inside the IDE (or you can install the more exotic ones manually). Since Eclipse has the biggest market share among Java IDEs, we pick it for our further work. The skills you learn through using Eclipse are easily transferable to other IDEs (like IntelliJ, Netbeans for Java or Visual Studio for .Net).

A few words of the chosen installation
Eclipse is now also available as an installer for Windows. The installer uses shared resources and saves some space on your harddisk, while it risks introducing library conflicts and portability (including backup and restore) of the IDE itself. Because of this, I do not recommend using the installer, instead, you should in my opinion use the .zip file for your platform. It allows you to make a so-called portable installation. You will be able to zip the installation folder, move it to another computer, back it up and restore it, and you will still have a working IDE. This tutorial shows you how to make this installation.

0. Make sure that you have **Java working** on your computer. The JDK installed should be the same "bit" as your operating system (32 vs 64). You test it by successfully executing the following two lines of code from the command prompt:
> java -version
> javac -version

If java fails, you must install a JDK from Oracle.com (or install it from the repos if you are running Linux). If javac fails (and you do have the JDK), you must add the path to the bin folder in the JDK installation to your PATH environment variable. **For Oxygen, it must be Java 1.8, NOT 9!**

Download the .zip file:

1. **Navigate** to the Eclipse website: http://www.eclipse.org
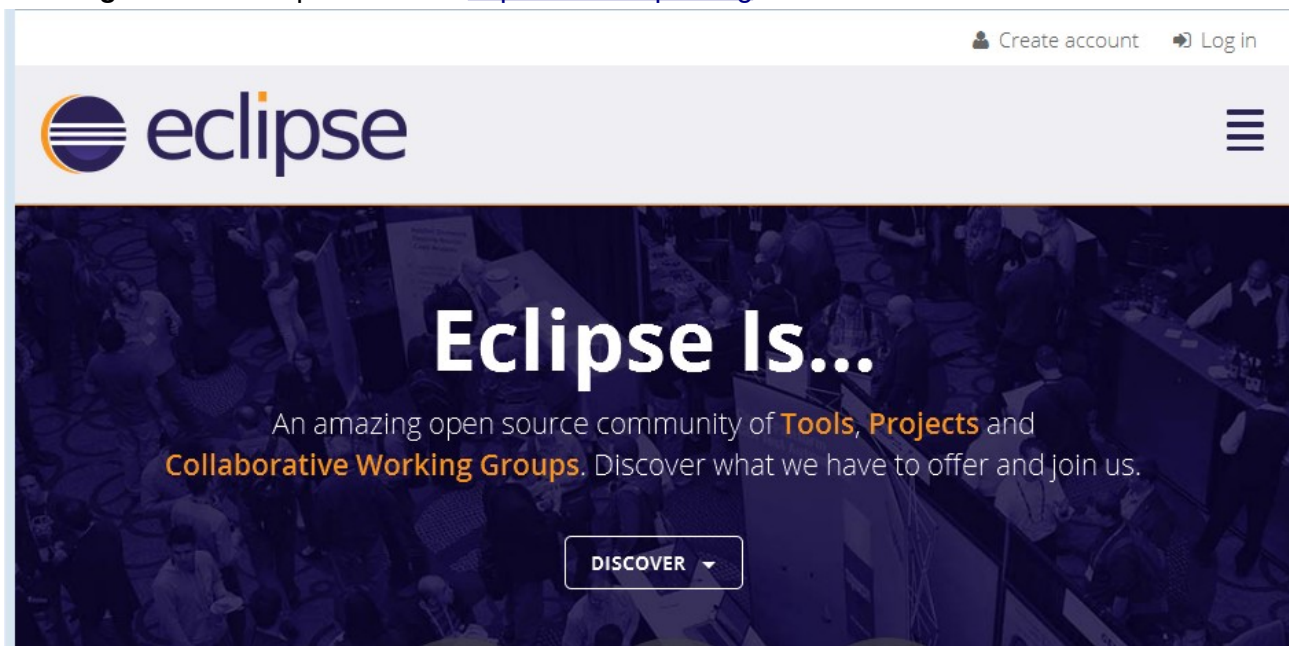
2. Click the big orange **Download button** (or find a download link if the site has changed).
3. *Do NOT click the eclipse-inst-win64.exe link* (or any link that offers an installer). Instead, **find more options**. At the time of writing, I clicked the "Downloads" link in the breadcrumb and selected "Download Packages". This should take you to a page with multiple optional downloads.

4. Pick **Eclipse IDE for Java Developers**. *Do NOT pick the Java EE Developers option.*
5. **Find** the **version** that **fits your JDK** and **OS**, and click the link that downloads the .zip file.

6. **Save** it to your harddisk in a location that is easy for you to find later.

Installation:

7. Find a good place to install the IDE. I usually **make** an "**install**" **folder** under my personal account on my operating system. On Windows it's under My Documents, on Linux it's under my home folder (/home/username/install). Something similar to what applies to Linux users applies to Mac users.

8. **Unzip** the Eclipse .zip file to your selected installation folder.

9. The folder created is called "**eclipse**". **Rename** this folder to something meaningful, so you can keep track of your various installations. I usually make the name reflect the version I installed. In this case the .zip file was called eclipse-java-oxygen-1a-win32-x86_64.zip, therefore, I renamed the eclipse folder to **eclipse-java-oxygen-1a-win32-x86_64**.

10. **Open your installation folder**, and find the eclipse executable. Under **Windows**, it's called **eclipse.exe**. Under Linux it's called eclipse.

11. After the splash screen, you are presented with a dialog that prompts you for a workspace location. I usually **make a folder under my home directory called workspace**, and then **inside the workspace folder, I make a dedicated folder for my current task**. It could be "semester1", "semester1_project", "in_class", or "try_eclipse" - it's your pick. The illustration shows a workspace created for teaching Java to dmab0916, 1st semester. Click OK.
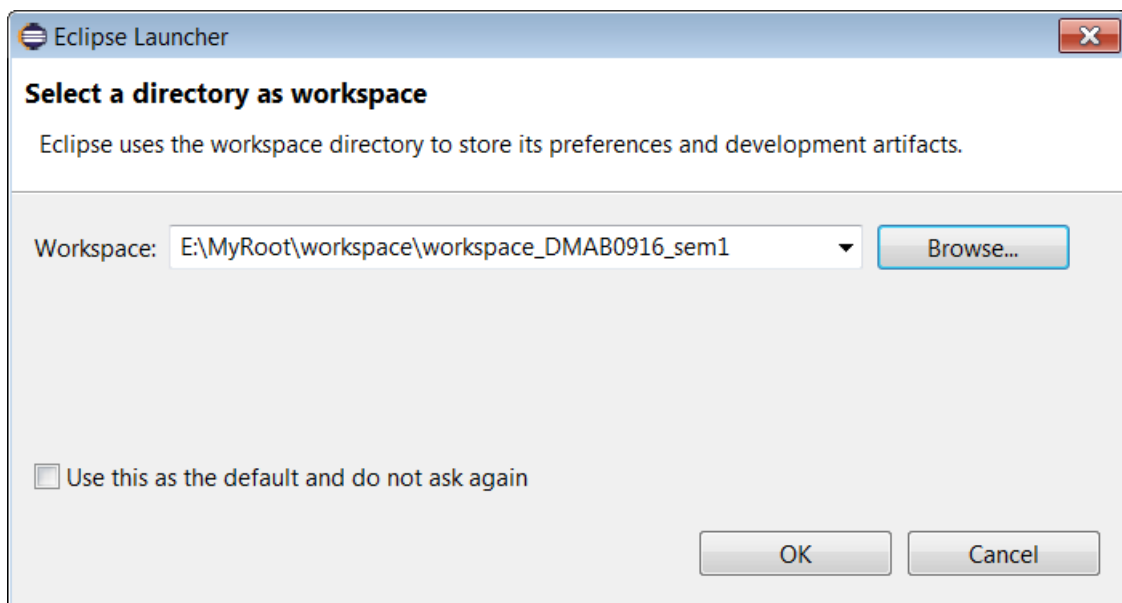
Check that WindowBuilder is installed:

12. **Create a new Java project** (File → New Java Project, Fill in a name in the dialog, click Finish).
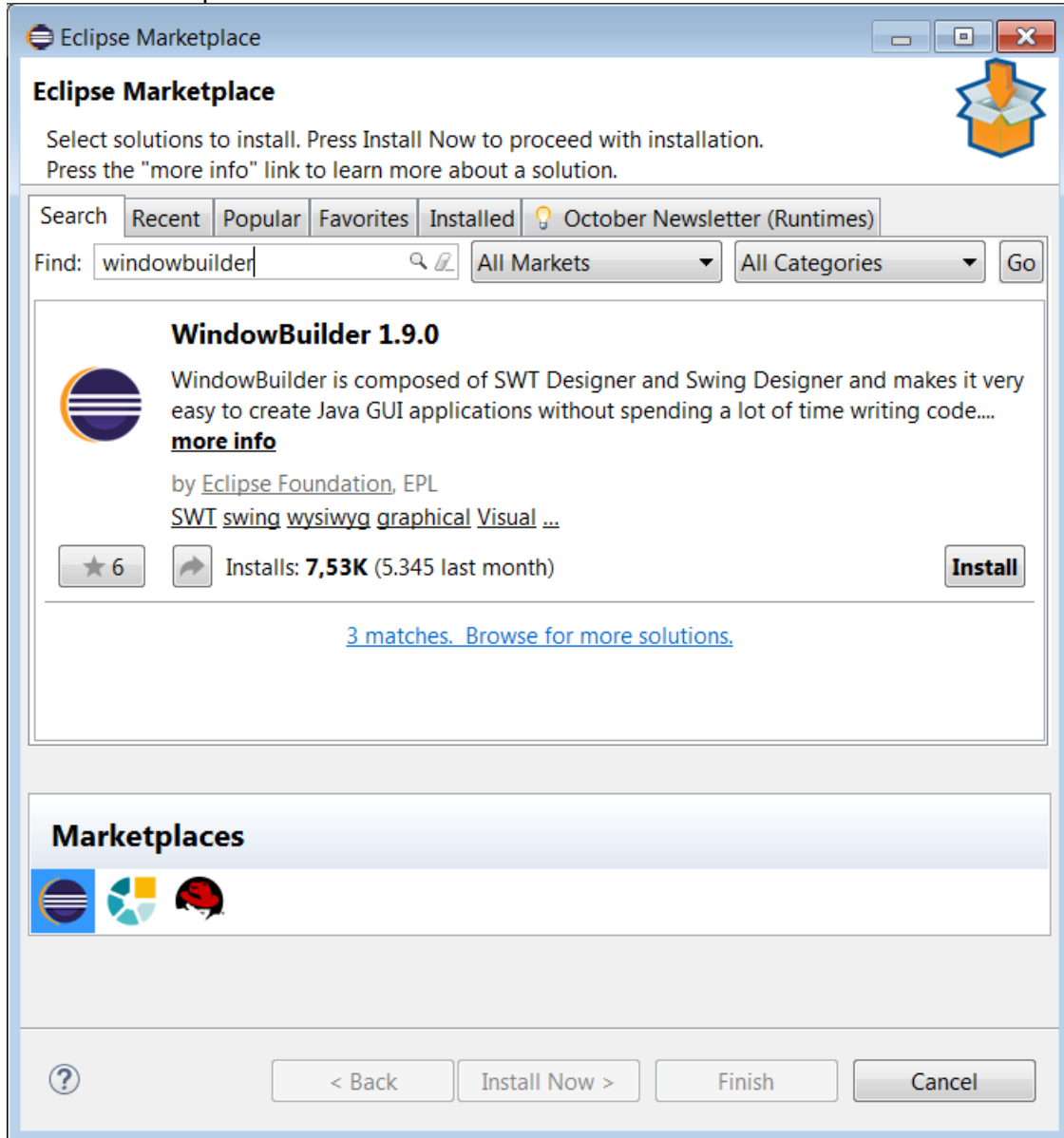Right-click the project → New → Other.
There should be a section called WindowBuilder. If it is not present:
 Cancel the dialog.
 Help → Eclipse Marketplace
 In the Find box type windowbuilder, search for it (hit Enter)
 You should be presented with a search result similar to as shown below:

 Click **Install**. Installation may take some time to complete.
 Click **confirm** and **accept all the licenses**.
 After the installation Eclipse tells you to **restart**. Accept this, and Eclipse will restart.
 (All the new components are stored inside your eclipse folder and will become part of
 the portable installation that you created using this tutorial)
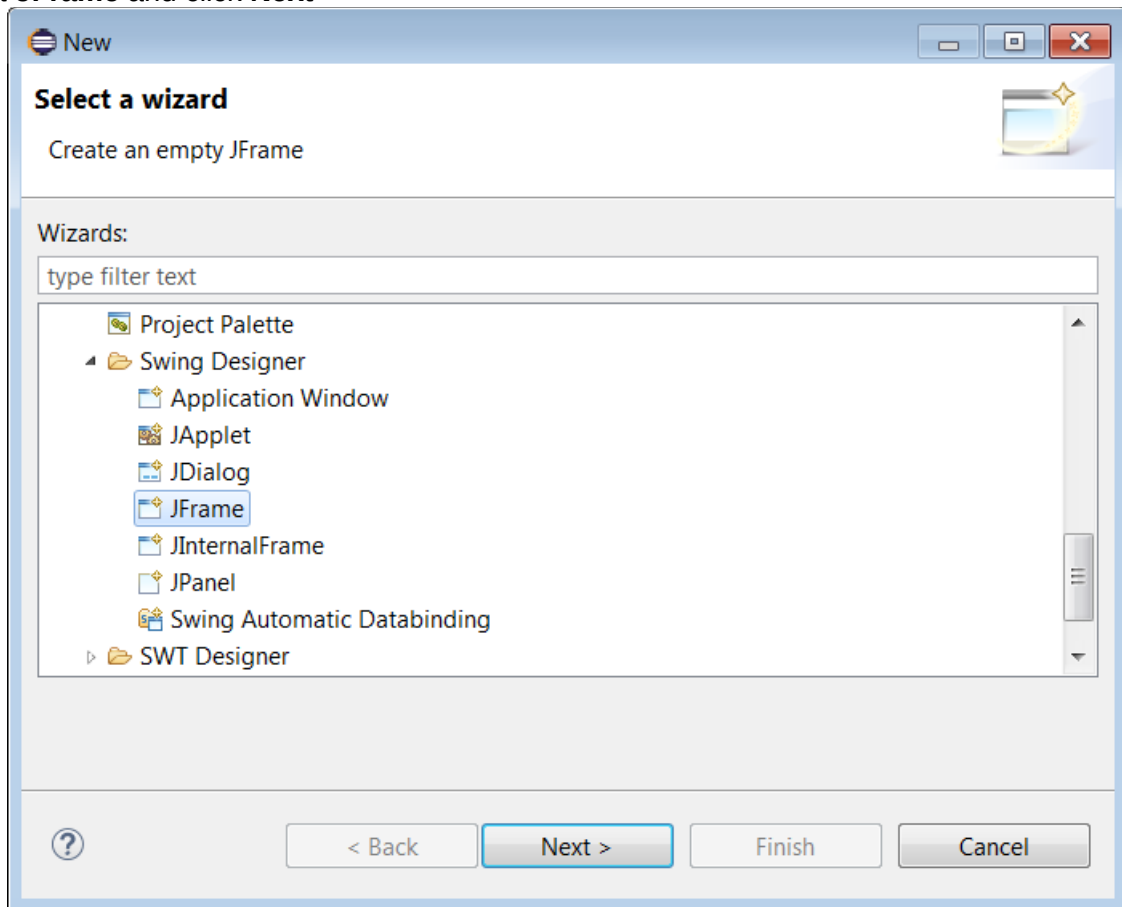 **Repeat the initial steps of testing Windowbuilder**, and continue with the test.
 (You may of course use the previously created project for testing.)
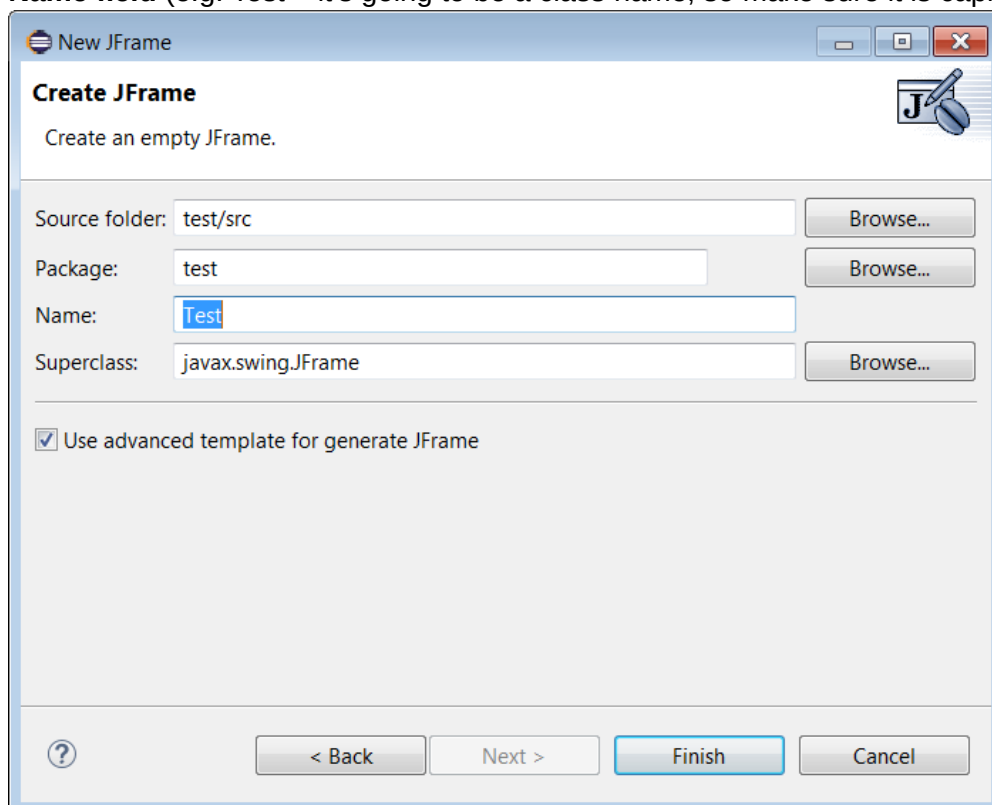
Testing WindowBuilder continuted:
Expand the **WindowBuilder** section
Expand the **Swing Designer** section under WindowBuilder.
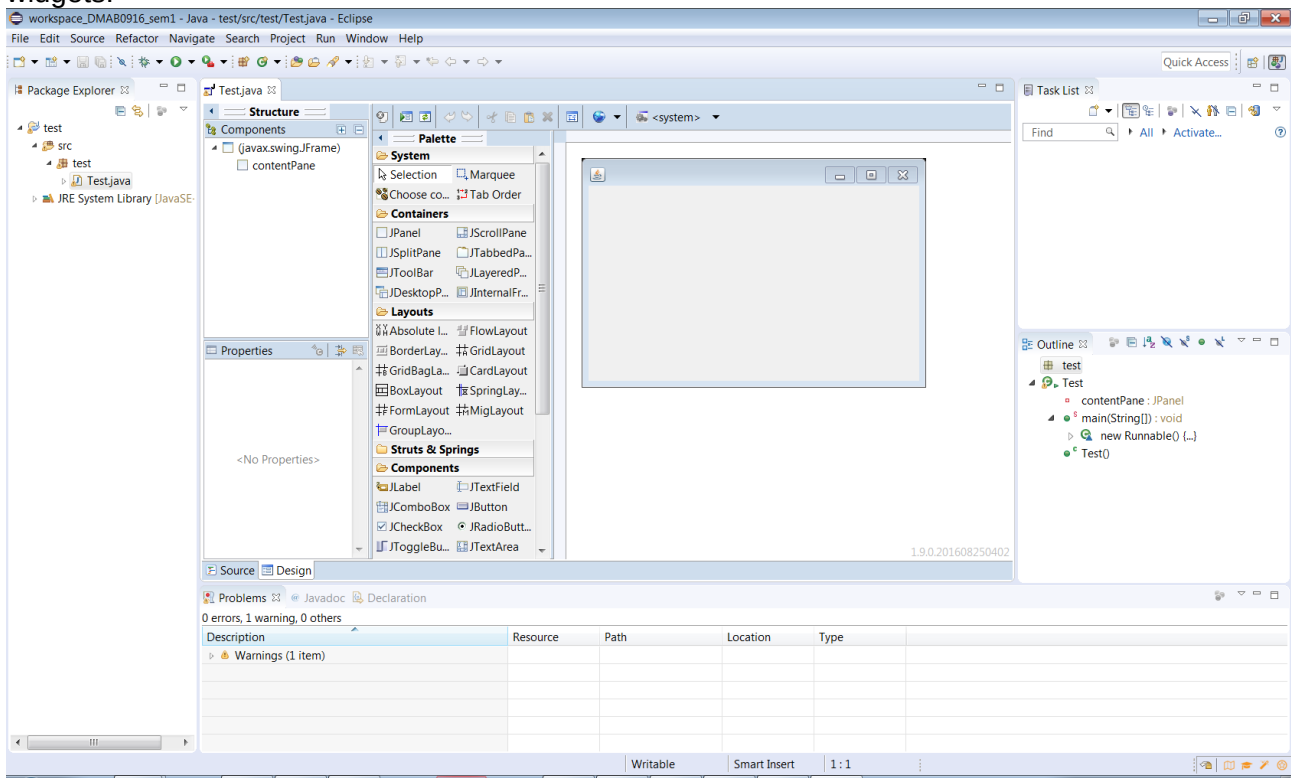Select **JFrame** and click **Next >**

Fill in the Name field (e.g. Test – it's going to be a class name, so make sure it is capitalized).

Click
Finish.

You should now be presented with a new class (source code shown). **Click** the design tab **"Design" below the source code**, and you should see an empty window ready to be filled with widgets.

You can **run this blank windowed program by clicking the green circle with a white triangle**.