Core Spring - Student Installation process

System Requirements

* 2GHz CPU or better
* At least 2 GB of memory, 4G preferred
* At least 1.5 GB of free disk space
* Internet access is only required for the initial setup, and not during the training.
  But a recent web-browser must be available and able to view local HTML files
  and provide access to Tomcat running on localhost port 8080 and 9000, including
  the ability to select, cut and paste regions of text.
* A PDF reader such as Acrobat

Courseware Installation Instructions

1) A recent version of Microsoft Edge, Internet Explorer 11, Firefox, Chrome or Safari
is required.

You can download the latest version of Chrome or Firefox here:
* http://www.mozilla.org/en-US/firefox/new/
* https://www.google.com.au/intl/en/chrome/

2) Install the JDK

JDK 8 must be installed. Note that a full JDK is required; a JRE is not sufficient.

Please note also that Java 8 is REQUIRED for this course. Although Spring 4 supports
older versions of Java, this course uses Java 8 features like lambda expressions.

On MS Windows: the 32 bit JDK and 32-bit course installer can be installed and run
on 64-bit Windows. What matters is that the two match.

If needed, a Jave SE JDK for your platform can be downloaded from here:

* http://www.oracle.com/technetwork/java/javase/downloads/index.html

Make sure JAVA_HOME is set in your environment.

3) Install Courseware

In the files below X.X.X is the release version, such as 4.3.a.

The installers are just compressed zip or tar files that contain:

1. The STS IDE executable
2. The labs (code projects) to be used during the course
3. A Maven repository of all required dependency jars
4. A copy of Apache Tomcat

There are versions for different platforms:

Linux 32 bit:	core-spring-X.X.X.RELEASE.linux.tar.gz
Linux 64 bit:	core-spring-X.X.X.RELEASE.linux.tar.gz
MacOS 64 bit:	core-spring-X.X.X.RELEASE.mac.tar.gz
Windows 32 bit:	core-spring-X.X.X.RELEASE.win32.zip
Windows 64 bit:	core-spring-X.X.X.RELEASE.win64.zip

INSTRUCTIONS

Windows: Unzip the archive core-spring-X.X.X.RELEASE.winNN.zip into C:\ where NN is 32
or 64. Make sure to install the right one for your platform. If you see
the error "File path too long", use 7zip instead. We recommend doing an
explicit Extract - it is much quicker than drag and drop. Make sure to install
the right one for your platform.
MacOS: Copy core-spring-X.X.X.RELEASE.mac.tar.gz to your home directory and double
click to unpack it.
Linux: Copy core-spring-X.X.X.RELEASE.linuxNN.tar to your home directory where NN
is 32 or 64. Unpack the file. Make sure to install the right one for your
platform.

NOTE: MACOS ERROR

When you try to run the installer, MacOS may claim it is damaged - specifically:
"STS.app" is damaged and can't be opened. You should move it to the Trash."

It's not really damaged, just unsigned and the Mac doesn't trust it. Here's how to

get around it:
1. Go to System Preferences, Security and Privacy.
2. Click the padlock icon to "unlock" the settings so you can make changes - you
   will need to specify your password.
3. Alter to "Allow apps downloaded from Anywhere".
4. Your STS should now open.

IMPORTANT: don't forget to revert your security settings back to their original values.
You won't need to alter these settings after the initial launch.

4) Verify Installation

Run STS to load in the courseware. The STS executable is:

Windows: C:\core-spring-X.X.X.RELEASE\STS\STS.exe
MacOS: ~/core-spring-X.X.X.RELEASE/STS.app
Linux: ~/core-spring-X.X.X.RELEASE/STS/STS

You will be prompted for the location of the workspace. You may wish to change this.
DO NOT click the "always use this workspace" checkbox. If anything goes wrong you
can try a different workspace. If the installation goes OK, you can click this
checkbox next time.

Once STS Starts up it will import the labs into the left-hand side panel and build
them. This may take a while. Please leave it until it has finished (watch the messages
at the bottom left).

When the process of building the workspace is complete, look at the Package Explorer
view. It should contain a number of Working Sets (folders). If there are some red
error markers on some of the Eclipse projects, you should:

- Select them all in the left-side panel, right-click and select refresh.
- Click on "Project" on the menu bar
- Select "Clean"
- Select "Clean projects selected below"
- Select all the projects showing red markers and click on "OK"

Next, look at the Problems view. It too should be free of any red error messages

(there may be yellow warning messages, but this is expected).

If you still have errors, the quickest solution is usually to delete the entire
installation, then unpack the installer archive and try again.

5) Desktop Links

You will find it convenient to create two shortcuts/links on your Desktop - one for
STS, the other for the HTML lab-documentation.

- Locate the course materials - if you used the recommended default locations, it will
  be C:\core-spring-X.X.X.RELEASE on Windows or ~/core-spring-X.X.X.RELEASE otherwise.
- Create a link/shortcut to the STS executable - see (4) for its location. It is
  normally the file with the green leaf icon.

- Create a link/shortcut to core-spring-X.X.X.RELEASE-labdocs/index.html

(X.X.X is the course release version).

For example on Windows using version 4.3.a of these materials and the default setup,
these files are:

C:\core-spring-4.3.a.RELEASE\core-spring-4.3.a.RELEASE\docs\index.html
C:\core-spring-4.3.a.RELEASE\sts-XXX.RELEASE\STS.exe

6) Other materials

You should also be given two PDFs with these materials

1. core-spring-X.X.X.RELEASE-student-handout.pdf
   A copy of all the presentations slides
2. core-spring-X.X.X.RELEASE-labdocs.pdf
   The lab-instructions

You may also be given a zip file containing the HTML documentation. It is the same
content as C:\core-spring-4.3.a.RELEASE\core-spring-4.3.a.RELEASE\docs.

The HTML and PDF documentation are identical, your choice. One advantage of the

HTML documentation is that you can cut and paste from it. The PDF is protected.

7) Alternative Workspace Setup

If you really cannot get STS to load up the labs successfully, here are is another option.

This approach also works with IntelliJ if you prefer that IDE.

1. If you have a link to Files Anywhere, there should be a folder called Manual Installation. Find the file core-spring-X.X.X.RELEASE-labs.zip. If you don't have a link, contact your Education provider and ask them to send you this file.

1. Unpack the zip file somewhere convenient.

2. Download STS from https://spring.io/tools/sts, install and run.

3. Import all the projects from the zip you unpacked using Import as Maven Projects.

4. The workspace will take time to import and build because it will need to download all the dependencies from Maven.

Doing the setup this way does not provide nice numbered working sets that group the labs in the order they will be needed for the course. But if you are familiar with STS/Eclipse and Maven it is a useful alternative if step (3) fails.

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