

Software Pre-requisites

For the course, the lecturers created a Virtual Machine in advance that has the following software installed.

- 1) Ubuntu 13.10 Desktop edition 32-bit

```
Default userid / password = ox-soa/ox-soa  
sudo apt-get update  
sudo apt-get upgrade
```

- 2) Install gksudo (for Eclipse)
Sudo apt-get install gksu

- 3) Java Development Kit JDK 1.7, Oracle Edition
sudo apt-get install default-jdk

- 4) Apache Maven 3.0.4 or later*
Apache Ant 1.8.4 or later*
Curl*

```
sudo apt-get install ant maven curl
```

- 5) Google Chrome
<https://www.google.com/intl/en/chrome/browser/>

- 6) Google Chrome Advanced REST Client extension
<https://chrome.google.com/webstore/detail/advanced-rest-client/hgmloofddfnphfgcellkdfbfbjello>
(to be installed from Chrome)

- 7) SOAPUI 4.6.1 or later
<http://sourceforge.net/projects/soapui/files/soapui/>

- 8) Some extra text editors
sudo apt-get install cream leafpad



9) Eclipse Juno SR1 IDE for JEE developers (32-bit)*

<http://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/junosr1>

Instead WSO2 Dev Studio 3.3.0 Alpha 3

<http://builder1.us1.wso2.org/~developerstudio/developer-studio/3.3.0/Alpha3/installed-distributions/>

10) This was un-tarred into the ~/eclipse directory

Then we did

```
sudo mv eclipse /opt/  
ln -s /opt/eclipse/eclipse /usr/bin/eclipse
```

Then created a desktop entry:

```
sudo gedit /usr/share/applications/eclipse.desktop
```

```
[Desktop Entry]  
Name=Eclipse  
Type=Application  
Exec=gksudo /usr/bin/eclipse  
Terminal=false  
Icon=/opt/eclipse/icon.xpm  
Comment=Integrated Development Environment  
NoDisplay=false  
Categories=Development;IDE  
Name[en]=eclipse.desktop
```

11) Before you import any maven project, you do need to let Eclipse know where your Maven is installed.

You can do this manually in Eclipse by adding the M2_REPO variable, but there is also a command line tool for this:

```
mvn -Declipse.workspace={path to eclipse workspace}  
eclipse:add-maven-repo
```

12) Also we need already downloaded the following links into a common downloads folder:

Apache Tomcat 8.0.0-RC5*: <http://tomcat.apache.org/download-80.cgi#8.0.0-RC5>

13) Apache CXF 2.7.0 or higher*: <http://cxf.apache.org/download.html>

14) The following servers were downloaded and unzipped into the ~/servers/ directory:

WSO2 ESB 4.8.0*: <http://wso2.com/products/enterprise-service-bus/>
(Download "Binary")



(Actually this is an early build from
<https://svn.wso2.org/repos/wso2/people/shafreen/20131125/wso2esb-4.8.0.zip>)

WSO2 Governance Registry 4.6.0 *:

<http://wso2.com/products/governance-registry/> (Download binary)

WSO2 API Manager 1.5.0*: <http://wso2.com/products/api-manager/>
(Download Binary)

WSO2 Business Activity Monitor 2.4.0*:

<http://wso2.com/products/business-activity-monitor/> (Download Binary)

WSO2 Business Process Server 3.0.0 *:

<http://wso2.com/products/business-process-server/> (Download Binary)

15) Unzipped Apache tcpmon into servers and did `chmod +x tcpmon.sh`

16) Changed the port offsets in the servers as follows:

Server	Offset	Directory	Admin Port / web
Tomcat	NA	~/servers/tomcat	http://localhost:8080
App Server	0	~/servers/wso2as-5.2.0	https://localhost:9443
Enterprise Service Bus	1	~/servers/wso2esb-4.8.0	https://localhost:9444
Governance Registry	2	~/servers/wso2greg-4.6.0	https://localhost:9445
Business Process Server	3	~/servers/wso2bps-3.0.0	https://localhost:9446
API Manager	4	~/servers/wso2am-1.5.0	https://localhost:9447
Business Activity Monitor	5	~/servers/wso2bam-2.4.0	https://localhost:9448

* All the items marked * are Open Source. This entire course can be done using 100% open source.

