## LINUX-1 – Install and configure Linux

**Conversation**

The aim of the excercize is to install and configure a Linux server.

Components to be installed:

Ubuntu 16.04.2

Java 8 SDK

Maven 3

Git

OpenSSH Server (if you want to login via SSH, like PuTTy)

Hints:

Use Oracle VM VirtualBox (<https://www.virtualbox.org/>) to run Linux as a virtual machine on your computer.

Use apt-get to install software components

**Confirmation**

**Example output**

|  |
| --- |
| root@ubuntu:/root# cat /etc/lsb-release  DISTRIB\_ID=Ubuntu  DISTRIB\_RELEASE=16.04  DISTRIB\_CODENAME=xenial  DISTRIB\_DESCRIPTION="Ubuntu 16.04.2 LTS"    root@ubuntu:/root# java -version  openjdk version "1.8.0\_111"  OpenJDK Runtime Environment (build 1.8.0\_111-8u111-b14-3~14.04.1-b14)  OpenJDK 64-Bit Server VM (build 25.111-b14, mixed mode)  root@vagrant-ubuntu-trusty-64:/root#    root@ubuntu:/root# mvn -version  Apache Maven 3.0.5  Maven home: /usr/share/maven  Java version: 1.8.0\_111, vendor: Oracle Corporation  Java home: /usr/lib/jvm/java-8-openjdk-amd64/jre  Default locale: en\_US, platform encoding: UTF-8  OS name: "linux", version: "3.13.0-107-generic", arch: "amd64", family: "unix"    root@ubuntu:/root# git --version  git version 1.9.1    root@ubuntu:/root# service ssh status  - ssh.service - OpenBSD Secure Shell server     Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)     Active: active (running) since ...   Main PID: 1040 (sshd)     CGroup: /system.slice/ssh.service             └─1040 /usr/sbin/sshd -D |

## LINUX-2 – Configure an application to start automatically

**Conversation**

In the exercise you have to use the installed Linux server and configure an application to be checked out to your local repository, compiled and started automatically on every server restart. The script also has to support "restarting" of the app.

**Prerequesities:**

FORK the following repository: <https://github.com/epammephungary/spring-boot-sample-web-ui.git> at Github. (Github can be used without authentication via HTTPS)

Tasks to be done:

Create a script called start-sample.sh on the Linux server to do these tasks:

Update your local Git repo (git clone / git pull) from the forked repository

use git clone if the repository not exists

use gil pull if the repository exists

Stop the application, if it is running (pkill …)

be careful, do not kill any other process!

Build the application (mvn clean install)

Start the application in background (mvn spring-boot:run &)

When the application is started, it could be reached here: <http://ip-address:8080/>

Configure the Linux server to run start-sample.sh on every server restart

In your repository modify the static content of the application (e.g. html templates) and to see changes run the script manually

In your repository modify the logging configuration (backlog.xml) to log to file as well and run the script to see changes, check the content of the log folder

Configure Linux to run your script when the server restarts

Add your script to /etc/rc.local, use the sudo command to run the script with your user

Optional task:

Create another user and configure Linux to start the application with this user instead of you

**Confirmation**

After a server restart the application is started and it can be reached from browser (<http://ip-address:8080/>)

Repository changes (static content, logging) can be seen after the start-sample.sh script executed manually