Optimum Hardware and Software Requirements for the Book

Note: There is no single configuration. Each section of every chapter has its own software and hardware specifications.

Chapter 1

The following chapter is a theoretical chapter and does not require any software or hardware specification.

Chapter 2

2.1 Running Jenkins inside a servlet container

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Java JDK 1.8.0. Apache Tomcat 8.5.16.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

2.2 Installing a standalone Jenkins server on Windows

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Java JRE 1.8.0_121.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Any of the following: Windows 7/8/10, Windows Server 2012/2012 R2/2016

2.3 Installing a standalone Jenkins server on Ubuntu

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Java JDK 1.8.0.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

2.4 Installing a standalone Jenkins server on Red Hat

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Java JRE 1.8.0_121.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	RHEL 7.3

2.5 Running Jenkins behind a reverse proxy

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Nginx (latest). The steps mentioned in the section will install the latest available Nginx. Java JDK 1.8.0.
Hardware Specifications	Two virtual machine/real machines with a minimum 4GB of RAM and a Quad core processor (4 CPUs) each.
OS Required	Ubuntu 16.04.x LTS (Xenial)

2.6 Running Jenkins on Docker

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps.

	Following is the list of software's that are described in this section: Docker. The steps mentioned in the section will install the latest available Docker application. Jenkins (latest). Will be installed from a Docker image (*jenkins/jenkins:lts*). Curl (latest).
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

2.7 Creating development and staging Instances of Jenkins.

Same as above.

Chapter 3

Note: All sections in the following chapter have a single configuration.

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine. Java JRE 1.8.0_121. A Github account (public/private). Maven 2.5.0. Follow the installation steps mentioned in the section.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

Chapter 4

Note: All sections in the following chapter have a single configuration.

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Jenkins 2.73.3. But there is no hard and fast rule to use only this particular specific version. Any latest LTS release of Jenkins is fine.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

Chapter 5

5.1 Adding Jenkins slaves (standalone Linux machine/VMs)

Software Required	There is no pre-requisite list of software. Everything that is needed is described in the respective section.
Hardware Specifications	For the Jenkins Slave: A virtual machine/real machine with a minimum 2 GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

5.2 Adding Jenkins slaves (standalone Windows machine/VMs)

Software Required	There is no pre-requisite list of software. Everything that is needed is described in the respective section.
Hardware Specifications	For the Jenkins Slave: A virtual machine/real machine with a minimum 2 GB of RAM and a Quad core processor (4 CPUs).
OS Required	For the Jenkins Slave: Any of the following: Windows 7/8/10, Windows Server 2012/2012 R2/2016

5.3 Adding Jenkins Slaves (Docker containers)

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Docker Host. The steps mentioned in the section will install the latest available Docker application. Curl (latest).
Hardware Specifications	For the Docker Host: A virtual machine/real machine with a minimum 4 GB of RAM and a Quad core processor (4 CPUs).
OS Required	For the Docker Host: Ubuntu 16.04.x LTS (Xenial).

Chapter 6

6.1 Installing and configuring SonarQube

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: SonarQube 5.6.7 LTS. Java JRE 1.8.0.

Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

6.2 Installing and configuring Artifactory

Software Required	Note: There is no pre-requisite list of software. Everything that is needed is described in the respective section along with the installation steps. Following is the list of software's that are described in this section: Artifactory 5.2.2 LTS. Java JRE 1.8.0.
Hardware Specifications	A virtual machine/real machine with a minimum 4GB of RAM and a Quad core processor (4 CPUs).
OS Required	Ubuntu 16.04.x LTS (Xenial)

Chapter 7

7.1 Continuous Integration Pipeline.

Same as above.