Java Development

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Contents

Chapter 1

Introduction

This book serves as an introduction to several frameworks commonly employed in production shops.

I will walk you through creating a server, some virtual machines and configuring some appliances to facilitate development.

The provide javautil code will be used to show

Technologies to be covered include:

- Linux distributions
- Virtual Machines and Containers
- Integrated Development Environment
- Eclipse
- Build Tools Maven
- Object Relational Mapping using Hibernate
- Unit Testing Junit Cobertura
- Source Control Git

Chapter 2

Linux Distributions

There are a large number of linux distributions each with its own benefits and disadvantages.

I will assume that the developer is working on a personal workstation and consequently wants a full graphical interface.

If are already using linux, there is probably no need to change for most of this.

2.1 Distro Types

Update management, location of files, tools

2.1.1 debian

2.1.2 RedHat

2.2 CentOs

The Centos distribution is based on Red Hat, the most popular commercial implementation. It is fraught with many problems for the neophyte including support for all sorts of

2.3 Window managers

2.3.1 Gnome

2.3.2 KDE

Chapter 3

Linux

3.1 Environment

configure your .bashrc file

```
# .bashrc
# User specific aliases and functions and environment variables
#export JAVA_HOME=/common/tools/linux/32/jdk1.6.0_13
export JAVA_HOME=/common/tools/linux/64/jdk1.6.0_13
#export JAVA_HOME=/common/tools/linux/32/jre1.6.0_13
PATH=$JAVA_HOME/bin:$PATH
export MAVEN=/common/tools/java/apache-maven-2.1.0/bin
PATH=$MAVEN:$PATH
PATH=$PATH:~/bin
. ~/bin/qcd.sh
```

http://www.joshstaiger.org/archives/2005/07/bash_profile_vs.html

3.2 Editing

Chapter 4

Operating System Containers

Containers are used to create a minimal environment to support a service. The advantages of containers include

- The ability to strip down to only those components necessary to support the service which reduces conflicts on dependencies, simplifies security by eliminating unnecessary security holes
- Ease of deployment

Openvz http://en.wikipedia.org/wiki/OpenVZ

4.1 Eclipse

The only IDE we will talk about here is Eclipse. We will be using the Kepler Version Standard Edition or Enterprise Edition is acceptable