



KFS Hands-On Developer Introduction

Leo Przybylski

Contents

Preface	4
Copyright	7
Copyright Holder	7
Disclaimer	7
About the Trainer	7
Using these Exercises	7
VirtualBox Appliance	7
Virtual Machine Manifest	8
Training Overview	9
Exercise 1: Import Project	10
Exercise 1: Import Project	13
Description	13
Goals	13
Instructions	13
Exercise 2: Database Setup	15
Exercise 2: Database Setup	17
Description	17
Goals	17
Instructions	17
Exercise 3: Create Business Object Table	20
Exercise 3: Create Business Object Table	23
Description	23
Goals	23

Instructions	23
Exercise 5: Create Maintenance Document	25
Exercise 5: Create Maintenance Document	27
Description	27
Goals	27
Instructions	27
Exercise 6: Basic Routing	29
Exercise 6: Basic Routing	31
Description	31
Goals	31
Instructions	31
Exercise 7: Split Node	33
Exercise 7: Split Node	35
Description	35
Goals	35
Instructions	35

Preface

Copyright

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About the Trainer

Leo started working with the Kuali Foundation in 2005 as a developer on the Kuali Financial System. Since then, he has worked as a *Development Manager* on the Kuali Financial System, *Lead Developer* on the Kuali Coeus project, *Software Architect* on the University of Arizona KFS implementation, and now is a *Release Engineer* for the Kuali Foundation for the Rice Project.

Leo has given six presentations on KFS, KC, and Rice on to separate Kuali Days occasions.

One significant contribution he has made to the Kuali Community is his Rice LDAP Integration module.

Using these Exercises

VirtualBox Appliance

Exercise instructions are included in this document. All software and examples are available on the VirtualBox appliance distributed during class. To install the VirtualBox appliance:

1. Execute the VirtualBox installer to install the software.
2. Copy the **KFSDev.box** from the distributed USB drive to your hard disk.

3. Execute from a shell

```
vagrant box add KFSDev KFSDev.box
```

4. Import the Virtual Machine

```
vagrant up
```

5. Stop the Virtual Machine

```
vagrant halt
```

6. Start VirtualBox

Virtual Machine Manifest

The VirtualBox appliance is an Ubuntu Linux distribution. Within it is the software we will use for this class:

Eclipse Indigo the IDE used for class. Includes Subclipse, the m2eclipse plugin, and pre-installed projects with examples.

OpenJDK 1.7.0_06 IcedTea the JVM used for executing/testing examples.

Maven 3 used to build Rice applications, run tests, and start the Tomcat6 application

Credentials

User Account is **kuali** with the password **kuali**. This is used to unlock the VM after it has suspended, gone to sleep, or locked. The password is also required for executing commands as **root** which may on occasion be required. The user account home directory is located at **/home/kuali** and will frequently be referred to during the training.

Database Account uses the jdbc connection string **jdbc:mysql://localhost:3306/kuldemo** and the username/password **kuldemo/kuldemo**. These are the default credentials and database connection information as defined in kul-cfg-dbs.

Structure

The Eclipse workspace is located at `/home/kuali/workspace`.

Training Overview

Exercise 1:

Import Project

Exercise 1

Import Project

Description

Goals

Instructions

Exercise 2:

Database Setup

Exercise 2: Database Setup

Description

Goals

Instructions

1 Update impex-build.properties

Open `/home/kuali/impex-build.properties`. Locate the section of code that looks like

```
import.torque.database = mysql
import.torque.database.driver = com.mysql.jdbc.Driver
import.torque.database.url = jdbc:mysql://localhost:3306/kuldemo
import.torque.database.user=kuldemo
import.torque.database.schema=KULDEMO
import.torque.database.password=kuldemo
```

and change it to

```
import.torque.database = mysql
import.torque.database.driver = com.mysql.jdbc.Driver
import.torque.database.url = jdbc:mysql://localhost:3306/kuldev
import.torque.database.user=kuldev
import.torque.database.schema=KULdev
import.torque.database.password=kuldev
```

1 Update kfs-build.properties

Open `/home/kuali/kfs-build.properties` Locate the section of code that looks like

```
datasource.username=kuldemo  
datasource.password=kuldemo  
mysql.datasource.url=jdbc:mysql://localhost:3306/kuldemo
```

and change it to

```
datasource.username=kuldev  
datasource.password=kuldev  
mysql.datasource.url=jdbc:mysql://localhost:3306/kuldev
```

2 Run Impex

Using a terminal window do the following:

```
cd /home/kuali/workspace/kul-cfg-dbs/impex  
ant create-schema import
```

Notes

Exercise 3:

Create Business Object Table

Exercise 3: Create Business Object Table

Description

Goals

Instructions

Exercise 5:

Create Maintenance Document

Exercise 5: Create Maintenance Document

Description

Goals

Instructions

Exercise 6:

Basic Routing

Exercise 6: Basic Routing

Description

Goals

Instructions

Exercise 7: Split Node

Exercise 7: Split Node

Description

Goals

Instructions

