Installation Guide

For

ECBank Management System

Prepared by

Shibli Zaman Annan **171 – 35 –** 2054

Saddam Sek **171 – 35 –** 2055

Department of Software Engineering

<16.12.2018>

Table of Content

The Banking Application

The Bank Account Management System is an application for maintaining a person's accountin a bank. In this project I tried to show the working of a banking account system and coverthe basic functionality of a Bank Account Management System. To develop a project for solving financial applications of a customer in banking environment in order to nurture the needs of an end banking user by providing various ways to perform banking tasks. Also to enable the user's work space to have additional functionalities which are not provided under a conventional banking project. The Bank Account Management System undertaken as a project is based on relevant technologies. The main aim of this project is to develop software for Bank Account Management System

The EC Banking Application consists of the following components:

- A database containing the data required by the product.
- A deployable Enterprise Application Archive (EAR) file, which contains:
- The standard server-side functionality of the Banking Application, which is deployed on a Central Server.
- Java Swing-based client and administration applications for Branch Teller.
- Web applications for Internet Banking and MCA Services administration functionality.

Web Logic Installation Process

This chapter describes how to install the Banking Application on the WebLogic platform. It contains the following topics:

- Requirements for Installing the Banking Application on Windows
- Requirements for Installing the Banking Application on UNIX
- Extracting the SRF Banking Application Files
- Setting Up the Oracle Database
- Deploying the Banking Application on WebLogic

NOTE: Refer to the Siebel Retail Finance System Requirements and Supported Platforms document on the Siebel SupportWeb Web site (http://supportweb.siebel.com) for information regarding the supported environments, including the supported database and application server versions, and supported versions of third- party software. Your Siebel TAM will have provided you with a SupportWeb logon.

Requirements for Installing the Banking Application on Windows

The installation prerequisites for installing on Windows are as follows:

- The target machine must be clean, that is, not running any other WebLogic applications, including any previous version of the Banking Application.
- BEA WebLogic 8.1.0 must be installed and configured. This guide assumes that the WebLogic root directory is: D:\bea\weblogic81.
- Oracle must be installed and configured. This guide assumes that Oracle is installed at: D:\oracle.
- The Java utilities java, javac, and jar must be available at the command line.
- This guide assumes the CD-ROM drive is attached to drive: E:\.
- Siebel Financial Services 7.x must be installed, if it is required to interface with that product.

Requirements for Installing the Banking Application on UNIX

The installation prerequisites for installing on UNIX are as follows:

- The target machine must be clean, that is, not running any other WebLogic applications, including any previous version of the Banking Application.

- BEA WebLogic 8.1.0 must be installed and configured. This guide assumes that the WebLogic root directory is: /bea/weblogic81.
- Oracle must be installed and configured. $ORACLE_HOME must be configured to the Oracle installation location.
- The Java utilities java, javac, and jar must be available at the command line.
- This guide assumes the CD-ROM drive is mounted at: /mnt/cdrom.
- Siebel Financial Services 7.x must be installed, if it is required to interface with that product.

Oracle Database

Setting Up the Oracle Database

Create a database on Oracle database server machine, using all the default settings, and create a user with DBA rights on this database. For the purpose of these instructions it is assumed the database is called banker and the user is also called banker. See your Oracle documentation for information on how to create databases and users.

Oracle Database Prerequisites

- The Oracle command line utilities must be available at the command line.
- You must create an Oracle database and make a note of the name you give it.
- You must create an Oracle user for the database. Make a note of the user ID and password.
- You must create an entry for the database in the tnsnames.ora file for the server on which the application is to be deployed.

Importing the Oracle Dump File

The data for the Banking Application database is provided as an Oracle dump file, as some of the tables contain RAW data that you cannot import using standard SQL insert scripts. When you import the dump file, the existing database is first dropped and then the database is loaded with the contents of the `\Siebel\database\staging.dmp` file. The first time you run the ant drop or ant load commands, you are prompted for a database user name, a database password, and a database instance or db name. The process creates a `database. Properties` file at `D:\temp\build_tmp\`. This `database. Properties file` determines what database is used by the ant drop and ant load processes. If you need to use a different database, configure the database. Properties file accordingly. In this section the following are used:

- The database name is bankfrm.
- The database user ID is bankfrm.
- The database password is bankfrm.

Adjust these values based on the database name, user ID, and password you chose in the previous section. ***To import the Oracle dump file***

1 Type the command `cd /d d:\siebel\deploy\database.`

2 To drop the database if it already exists type the command `ant drop.`

3 To load the database type the command `ant load.`

To reset the Oracle database

- Type the command `ant reset-branches.`

Configuring the Database Drivers

Configuring the Database Drivers Must update the startsiebel script with the path that Web Logic uses to locate the database drivers. By default, the startsiebel script is configured for a USASCII database. You must update the script to use the UTF8 character set. ***To configure the database drivers on Windows***

1 Open in a text editor the *adminserverhome* /startsiebel.cmd file used to start the Administration Server, where *adminserverhome* is the home folder of the Administration Server.

2 For an Oracle character set, add the following line at the start of the startsiebel.cmd file:

```
chcp 1252 set NLS_LANG=AMERICAN_AMERICA.AL32UTF8
```

3 For Oracle 9.2.0, add the following line before the Java command at the end of the file:

```
set PATH=%WL_HOME%\server\bin\oci920_8;%PATH%
```

4 Save the file.

5 Repeat steps 1 through 4 for the *BEA_HOME*/weblogic81/server/bin startNodeManager.cmd script that you use to start the Node Manager.

To configure the database drivers on Solaris

1 Open in a text editor the *adminserverhome* /startsiebel.sh file used to start the Administration Server, where *adminserverhome* is the home folder of the Administration Server.

2 For an Oracle character set, add the following line at the start of the startsiebel.sh file:

```
NLS_LANG=AMERICAN_AMERICA.AL32UTF8 export NLS_LANG
```

3 After the line beginning with WL_HOME= add the following to set your Java Home:

```
JAVA_HOME=$WL_HOME/../jdk141_02; export JAVA_HOME PATH=$JAVA_HOME/bin:$PATH; export PATH
```

4 For Oracle 9.2.0, add the following line before the Java command at the end of the file:

```
set LD_LIBRARY_PATH=$WL_HOME/server/lib/solaris/oci920_8:$LD_LIBRARY_PATH; export LD_LIBRARY_PATH
```

5 Save the file.

6 Repeat steps 1 through 5 for the *BEA_HOME*/weblogic81/server/bin/startNodeManager.sh script that you use to start the Node Manager.

Configuring the Database Connection To configure the database connection, you must configure a database pool and data source. Before you configure the database connection, make sure that the Administration Server and the Node Manager are running. Refer to the WebLogic documentation for information about how to start the Node Manager and Administration Server. ***To configure the database connection***

1 Start the WebLogic administration console.

2 Navigate to Services > JDBC > Connection Pools in the navigation tree.

3 Select Configure a new JDBC Connection.

4 In the Database Type field, select Oracle and in the Database Driver field, select WebLogic's Oracle Driver (Type 2 XA)…, then click Continue.

5 In the Name field, type bankframePool, enter the connection details for the database that you want to connect to, and click Continue.

6 Click Test Driver Configuration to confirm that the database connection is correctly configured.

7 Select All servers in the cluster and click Create and deploy.

8 Navigate to Services > JDBC > Data Sources in the navigation tree.

9 Select Configure a new JDBC Data Source.

10 In the Name and JNDI Name fields, type bankfrm, and click Continue.

11 In the Pool Name field, select bankframePool and click Continue.

WebSphere Installation Process

This chapter describes how to install the Banking Application on the WebSphere platform. It contains the following topics:

- Requirements for Installing the Banking Application on Windows
- Requirements for Installing the Banking Application on UNIX
- Deploying the Banking Application in a WebSphere Clustered Environment
- Extracting the SRF Banking Application Files
- Configuring WebSphere Database Settings
- Configuring WebSphere JMS Settings
- Configuring Pass by Reference
- Configuring the BankframeResource.Properties File
- Deploying the Banking Application on WebSphere 5.1.1

Requirements for Installing the Banking Application on Windows

This section outlines the installation prerequisites when installing the Banking Application on Windows. This guide assumes the installation locations in the following list; adjust the values in the examples to your machine configuration.

- The target server must be clean, that is, not running any other WebSphere applications, including any previous version of the Banking Application.
- IBM WebSphere 5.1.1 must be installed and configured. This guide assumes that the WebSphere root directory is: `D:\Program Files\WebSphere.`
- A database server must be installed and configured; this release supports both DB2 and Oracle. This guide assumes that:
- DB2 is installed at: `D:\SQLLIB.`
- Oracle is installed at: `D:\Oracle.`
- The Java utilities `java`, `javac`, and `jar` must be available at the command line.
- This guide assumes that the CD-ROM drive is attached to drive `E:\`; adjust the values in the examples to your machine configuration.
- If interfacing with Siebel Financial Services 7.x is required an installation of Siebel Financial Services 7.x is a prerequisite.

Requirements for Installing the Banking Application on UNIX

This section outlines the installation prerequisites when installing the Banking Application on UNIX. This guide assumes the installation locations listed below; adjust the values in the examples to your machine configuration.

- The target server must be clean, that is, not running any other WebSphere applications, including any previous version of the Banking Application.
- IBM WebSphere 5.1.1 must be installed and configured. This guide assumes that the WebSphere root directory is: `/usr/WebSphere`
- A database server must be installed and configured; this release supports DB2 and Oracle. This guide assumes that:
- DB2 is installed at: `/app/IBMdb2/sqllib.`
- Oracle is installed at: `/opt/oracle/OraHome1.`
- The Java utilities `java`, `javac`, and `jar` must be available at the command line.
- This guide assumes that the CD-ROM drive is mounted at `/mnt/cdrom`; adjust the values in the examples to your machine configuration.
- If interfacing with Siebel Financial Services 7.x is required an installation of Siebel Financial Services 7.x is a prerequisite.

Installing Third Party Software

This chapter describes how to install the third party software that is required to enable peripheral devices and PDF form generation for the Banking Application. It includes the following topics:

- Installing the Java Communications API
- Enabling the Banking Application to be Rebuilt with Peripheral Support
- Enabling PDF Form Generation

Installing the Java Communications API

Support for peripheral devices connected to RS232 serial ports and IEEE 1284 parallel ports is provided through the Java Communications API. You must download and install this third party software, if peripheral devices are to be used in your Banking Application installation. ***To install the Java Communications API***

1 Open the URL http://java.sun.com/products/javacomm/downloads/index.html to download the Java Communications API.

2 Select Version 2.0 for Microsoft Windows and Solaris/x86 package.

3 Accept the license agreement prompt, and select the javacomm20-win32.zip URL.

4 Save the zip file to a temporary folder, for example, c:\temp.

5 Extract the contents of javacomm20-win32.zip to the temporary folder.

Installing the Java Communications API Extension in the JDK/JRE

Because the Java Communications API relies on a native library, you must install it into your JDK or JRE so that the JDK can load the native library at run time. If you are installing the extension on a JDK, note that you must install all files in the jre subfolder of the JDK. ***To install the Java Communications API extension***

1 Place the win32com.dll in the *jre*\bin directory.

where jre is the root directory of your JRE installation.

2 Place the comm.jar file in the *jre*\lib\ext directory.

3 Place the javax.comm.properties in the *jre*\lib directory.