Code Setup Guide

Following components are used for development of NumberSorting.ear:

- JDK 1.8_91 : Features used in this project are **Instance** for calculating processing time, **Streams** and **Method reference** for converting String input to integer array

- Eclipse LUNA as IDE

- Maven 3.0.5 for build

- AngularJs 1.4 as java script framework: Features used in this project are **two way data binding** and **data-ng-repeat with track by** to display repetitive number if any.

- Spring 4.1.3 as middleware framework: Features used in this project are **MVC for 3-tier architecture**, **auto wiring** and **dependency injection** for binding different layers, **jdbctemplate** for executing different queries on the database.

- Oracle 11g as database

- JBoss 6.3.0 EAP as application server: Features used in this project are **data source** for connecting to database, jar files and configuration files on the class path as **modules** .

- Log4j 1.2.16 as logging framework.

- Bootstrap: Features used in this project is bootstrap-tour for implementing Take a Tour.

Please follow following steps to setup development environment:

1. Create a database in oracle database server and execute database script (File name:

   NumberSortingDBScript.sql).

2. Setup maven and configure repository on development machine to create build.

3. Place **ojdbc14-10.2.0.2.jar** under group id **cn.guoyukun.jdb** in maven repo.

4. Setup eclipse as IDE and configure maven (Window -> Preferences -> Maven -> User Settings)

   repository in it.

5. Import the projects (NumberSorting and NumberSortingEAR) along with parent pom file in

   eclipse as **Existing Project into Workspace**.

6. Generate maven build using parent pom (command: mvn –X clean install). EAR will be generated under group id NumberSortingEAR in maven repo.

7. Setup JBoss 6.3.0 EAP as application server using standalone mode and create management user by executing **add-user.bat** file present in **jboss-eap-6.3\bin** directory.

8. Place **log4jConfig.xml** in **jboss-eap-6.3\bin** directory.

9. Place **numbersorting** folder in **jboss-eap-6.3\modules\system\layers\base\com** directory.

10. Collect all jars mentioned in resources tag of **module.xml** file placed at **jboss-eap-6.3\modules\system\layers\base\com\numbersorting\applicationJars\main** directory and place them in the same folder.

11. Place **oracle** folder in **jboss-eap-6.3\modules\system\layers\base\org** directory.

12. Edit **standalone.xml** file placed in **jboss-eap-6.3\standalone\configuration** to include the following entry under drivers tag

```
<driver name="oracle" module="org.oracle">

        <driver-class>oracle.jdbc.OracleDriver</driver-class>

</driver>
```

13. Restart the server and login into admin console using management user.

14. Create and test data source using **oracle** as driver and **java:jboss/NumberSorting** as JNDI name.

15. Deploy NumberSortingEAR.