Project creation steps and remarks:

1) Create Data model.

EA Architect.

Remarks:

1. Name convention: set all names (tables and columns) in UPPERCASE.
2. After automatic DDL generation set LONGBLOB instead of BLOB and UTF-8 where necessary.

2) Create script to clean data in tables (clear\_tables.txt).

3) Create DB (manually) and tables (using DDL script) in MySQL. Set all names in UPPERCASE.

1. Fix issue with ‘Too many connections’.
2. Do backup of necessary tables.

4) Create application logic.

Java. Eclipse

1. Install Git, Maven, Openshift plugins.
2. Set object as ‘Serializable’.
3. To deal with binary data use byte[]. To convert byte[] to String use org.apache.commons.codec.binary.Base64.
4. To get Unicode data from database put ‘useUnicode=yes&characterEncoding=UTF-8’ at the end of the connection string.
5. To work with Excel use POI library. Handle NUMERIC and STRING cell types.
6. To handle attached files from JSP-form use working code.
7. Adjust logging, make comments.
8. Convert project to Maven, fill pom.xml, delete libraries from lib-folder.

5) Create presentation level.

JSP. Eclipse

1. Use [www.jqueryui.com](http://www.jqueryui.com) (.css and .js) to put specific interface features.
2. Use templates to create layouts.

6) Move project on webhost.

Cloud. Openshift.

1. Create account.
2. Install ruby, git, gem.
3. Create SSH keys (SSH does client and server authentication). Put public key on server, private key – in the folder .ssh and in Eclipse.
4. Create JBoss AS application with MySQL and PHPAdmin.
5. Deploy DB using DDL script. Do restore of necessary tables.
6. Import in Eclipse created application and deploy your project on OpenShift server (drag your project from Project Explorer and drop it on OpenShift server in Server view).
7. Use Git Shell to access file system with SSH. Set proper paths in .properties-files (log goes to ‘./jbossas/standalone/configuration/logging.properties

./jbossas/versions/7/standalone/configuration/logging.properties’). Set level to DEBUG if you need it.