

DHS Clinical Systems



Development Environment:

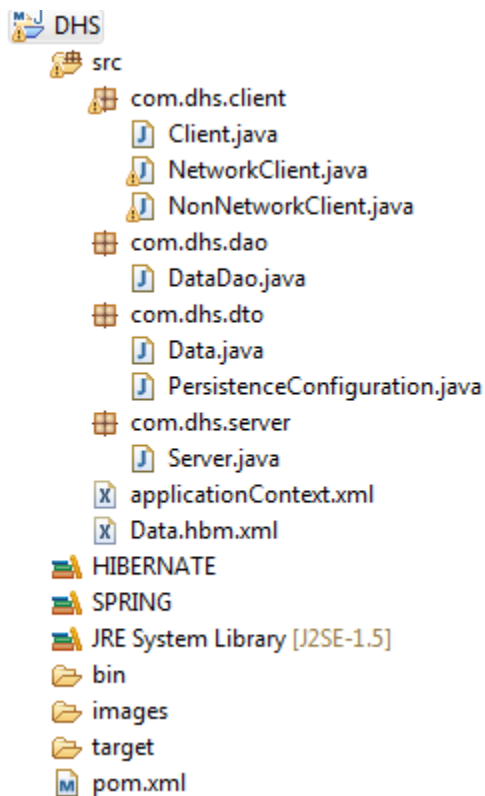
Spring	3.1.0.RELEASE
Hibernate	4.2.2.FINAL
Maven	3.1

- **Overall Architecture**

The main architecture of the application designed to be a traditional client-server system. There are three key parts: the server-side, the client-side, and the network connection between the two. Hence accordingly communication is done to fetch the contents of the file specified by the end-User.

- a) Client sends a request with a path to any file on the server
- b) Server reads the file and responds back with the content
- c) Client outputs the content to the console

- **The Directory Structure of the system goes like this:**



- **The System incorporates primarily two components:**

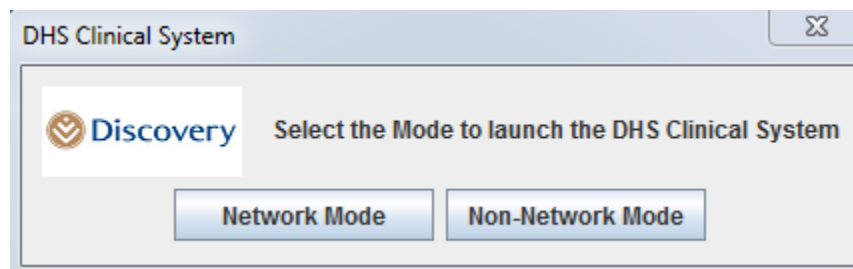
1. **DHS Server**

This is residing within **com.dhs.server** package and primary file is **Server.java** and has **main()** method in it, giving it capability to run itself independently of other components.

2. **DHS Client**

This is residing within **com.dhs.client** package and primary file is **Client.java** and has **main()** method in it, giving it capability to run itself independently of other components. As described in requirement specification, it has client operating in either:

- a) Network Mode (Remote Mode)
- b) Non-Network mode.



- **Content Display Strategy:**

Provision has been made to let the user either to display the contents of file to console or persist the data to the Database that completely depends on single point configuration in **applicationContext.xml** File.

Below code snippet is responsible for letting the above decision making done.

```
<bean id="PersistenceConfiguration" name="PersistenceConfiguration"
      class="com.dhs.dto.PersistenceConfiguration">
  <!-- <property name="persistenceStrategy" value="console"></property> -->
  <property name="persistenceStrategy" value="DB"></property>
</bean>
```

Bean **PersistenceConfiguration** decides which strategy to opt and functions accordingly.

If property **persistenceStrategy** is **console** then contents display on console or if it is **DB** then contents are persisted in the database whose parameters are also defined in **applicationContext.xml**.

```
<bean id="dataSource" class="org.apache.commons.dbcp.BasicDataSource">
  <property name="driverClassName" value="com.mysql.jdbc.Driver"></property>
  <property name="url" value="jdbc:mysql://localhost:3306/DHS"></property>
  <property name="username" value="root"></property>
  <property name="password" value=""></property>
</bean>
```

- **DB Schema:**



Table Name: Schema: **dhs**

Collation: Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
id	INT(10)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
timestamp	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
fileName	VARCHAR(100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
content	VARCHAR(1000)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

Note:- All Configuration related to DB Connection is present in ApplicationContext.xml

- **Deliverables:**

Package and Submission

DHS Clinical System consists of these components:

1. DHS-Client.jar - An executable JAR file, which will run both the stand-alone client and the network connected client. Furthermore, depends on User's selection to connect either one of the modes thus popped up.

2. DHS-Server.jar - An executable server-specific JAR file, which will run the networked server.

3. DHS-1.0.jar - A common JAR file, which will contain code common (Complete Code) to both client and server applications:

- src directory containing the source files for the project
- Any original data file(s) the candidate used to test the program
- A very simple and basic document file summarizing the design choices called **design.docx**



DHS-Client.jar



DHS-Server.jar



DHS-1.0.jar