### **Setting up environment at server side**

The following software must be installed into the server machine:

#### **Hardware requirements**

Server computer for deploying with the minimum configuration:

* CPU Intel® Core 2 Duo
* 2GB RAM.
* 30GB of hard disk.
* Internet

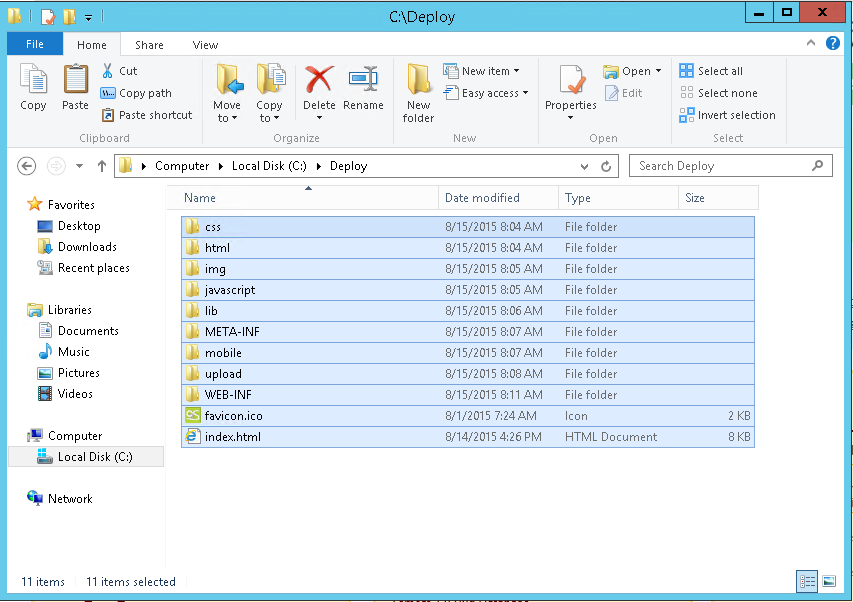
#### **Software requirements**

* Web Server: Apache tomcat, version 7.0 and above.
* JDK version: 1.7 and above
* Operating system: Windows Server 2008 and above, or Ubuntu Linux 10.04 and above
* SQL Server 2008 Express and above: used to create and manage database of web application.

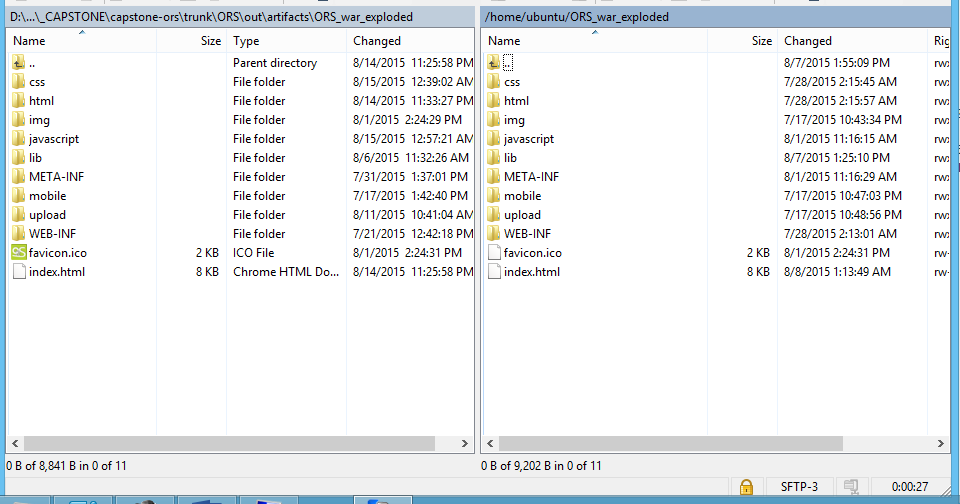
### **Deployment at server side**

#### **Prepare deployment package**

* Extract the deployment package to a folder on the server.
* For example: C:\Deploy (Windows) or /home/ubuntu/ORS\_war\_explode (Linux)



**Figure 1: Extract Deployment Package (Windows)**



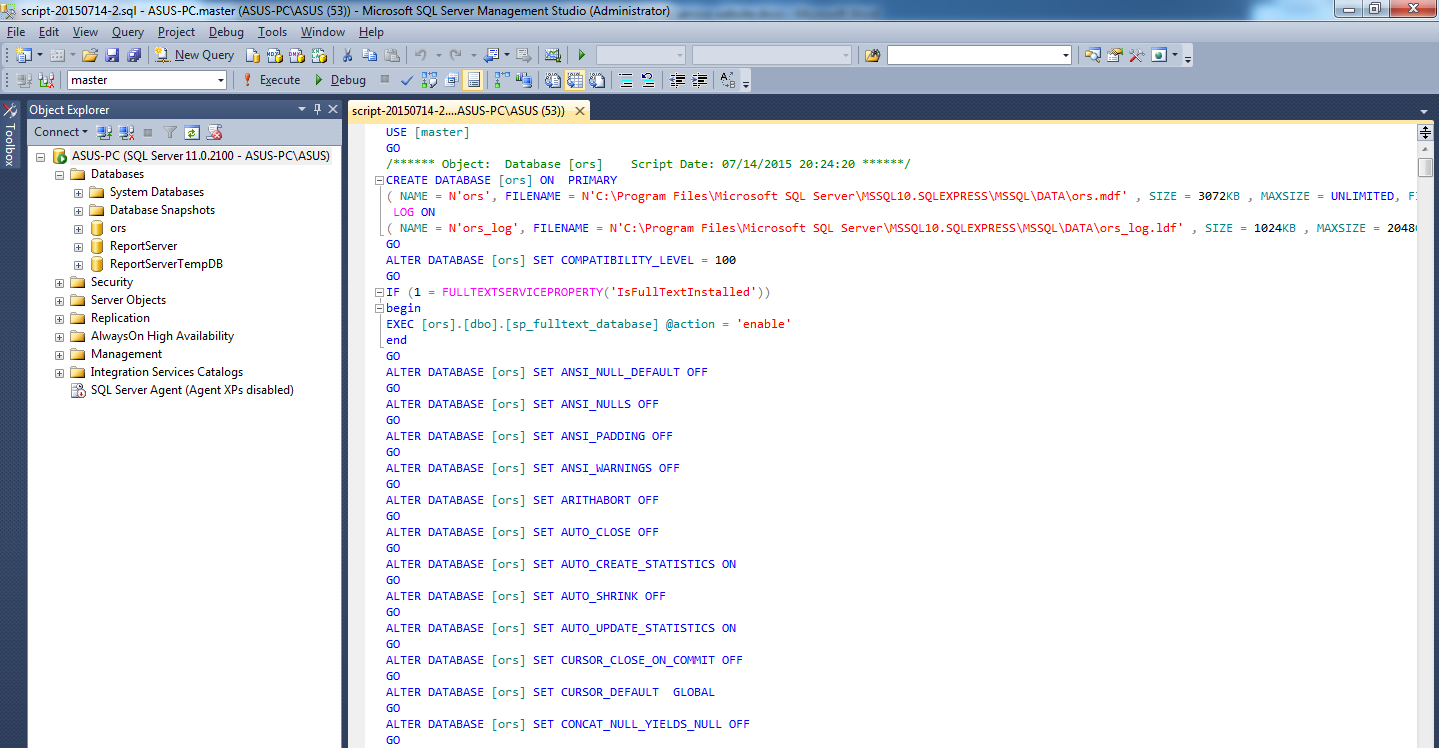
**Figure 2: Extract Deployment Package (Linux)**

#### **Database Deployment**

* Open Microsoft SQL Server Management Studio 2012 and login with administration account.



* Open “ORS\_script.sql” in Microsoft SQL Server Management
* Change FILENAME to the directory of SQL Server Instance in your server.

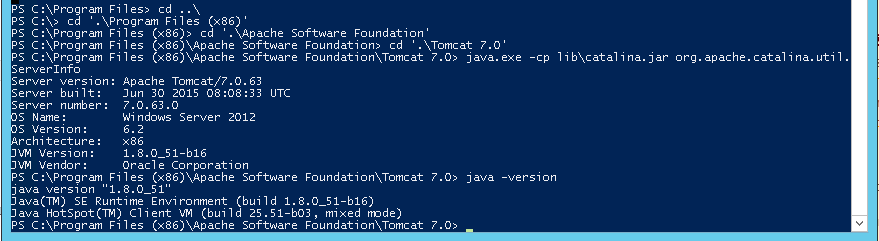
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**Figure 3: Open database script**

* Execute the script

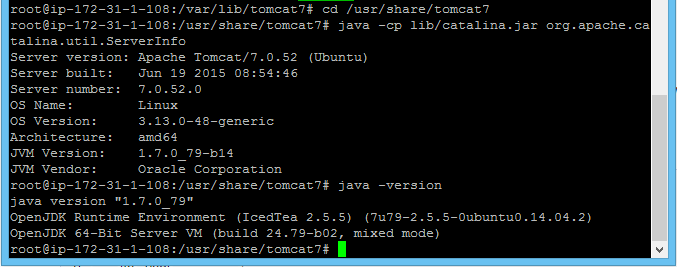
#### **Server configuration**

* Check the Java and Tomcat version if meeting the minimum requirement version
  + On Windows:
    - Go to Tomcat Home folder, type input ‘java.exe -cp lib\catalina.jar org.apache.catalina.util.ServerInfo' and enter for Tomcat version
    - Enter ‘java.exe –version' for java version



**Figure 4: Configure Server (Windows)**

* + On Windows:
    - Go to Tomcat User (/usr/share/tomcat7) Share folder, type input ‘java -cp lib/catalina.jar org.apache.catalina.util.ServerInfo' and enter for Tomcat version
    - Enter ‘java.exe –version' for java version

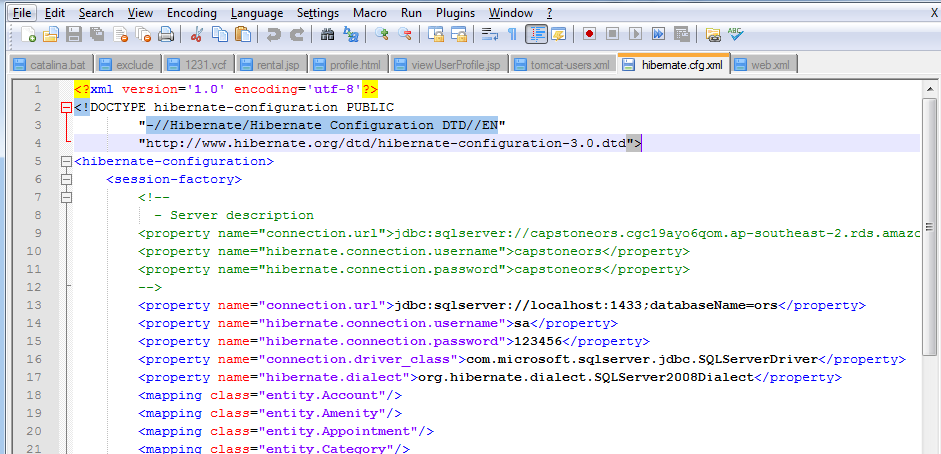


**Figure 4: Configure Server (Linux)**

* + On Windows: If the server configuration does not meet minimum requirement, reinstall the Java and Tomcat

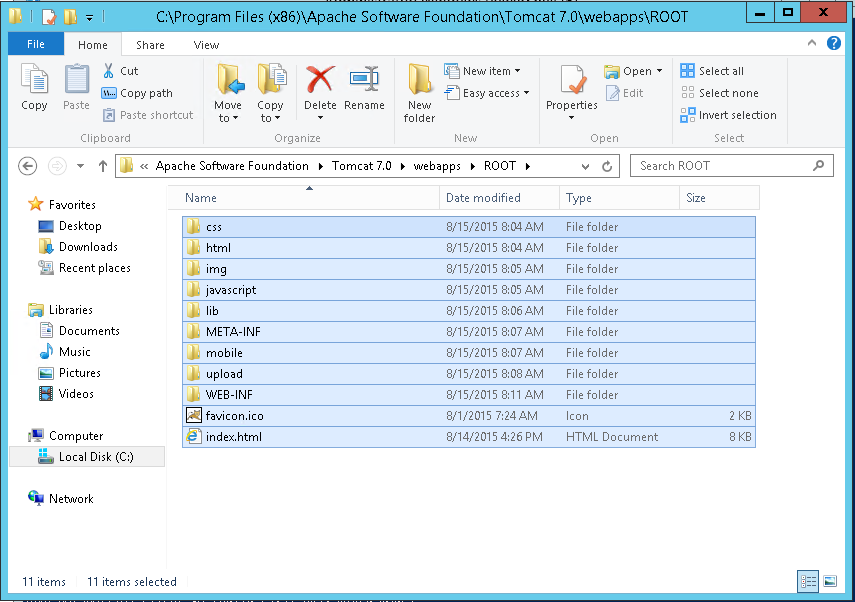
#### **Deploy**

* Change the user ID, password and data source parts of connection string in ‘WEB-INF\classes\hibernate.cfg.xml’ with installed sql server connection string



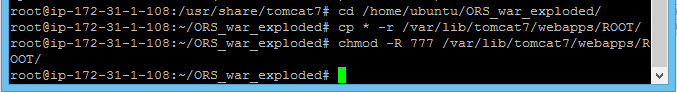
**Figure 5: Configure hibernate.cfg.xml**

* Copy unpacked folder to Tomcat Home -> webapps -> ROOT folder
  + On Windows:



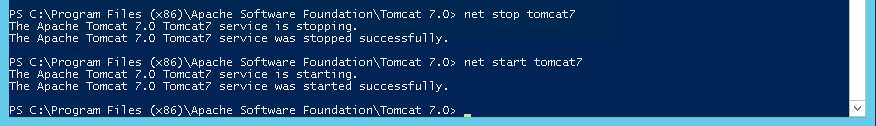
**Figure 6: Copy Unpacked Folder (Windows)**

* + On Linux: Note: change the permission of deployment package after deploy to enable uploading image to server



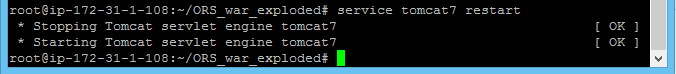
**Figure 6: Copy Unpacked Folder (Linux)**

* Restart server
  + Windows: run command
    - net stop tomcat7
    - net start tomcat7



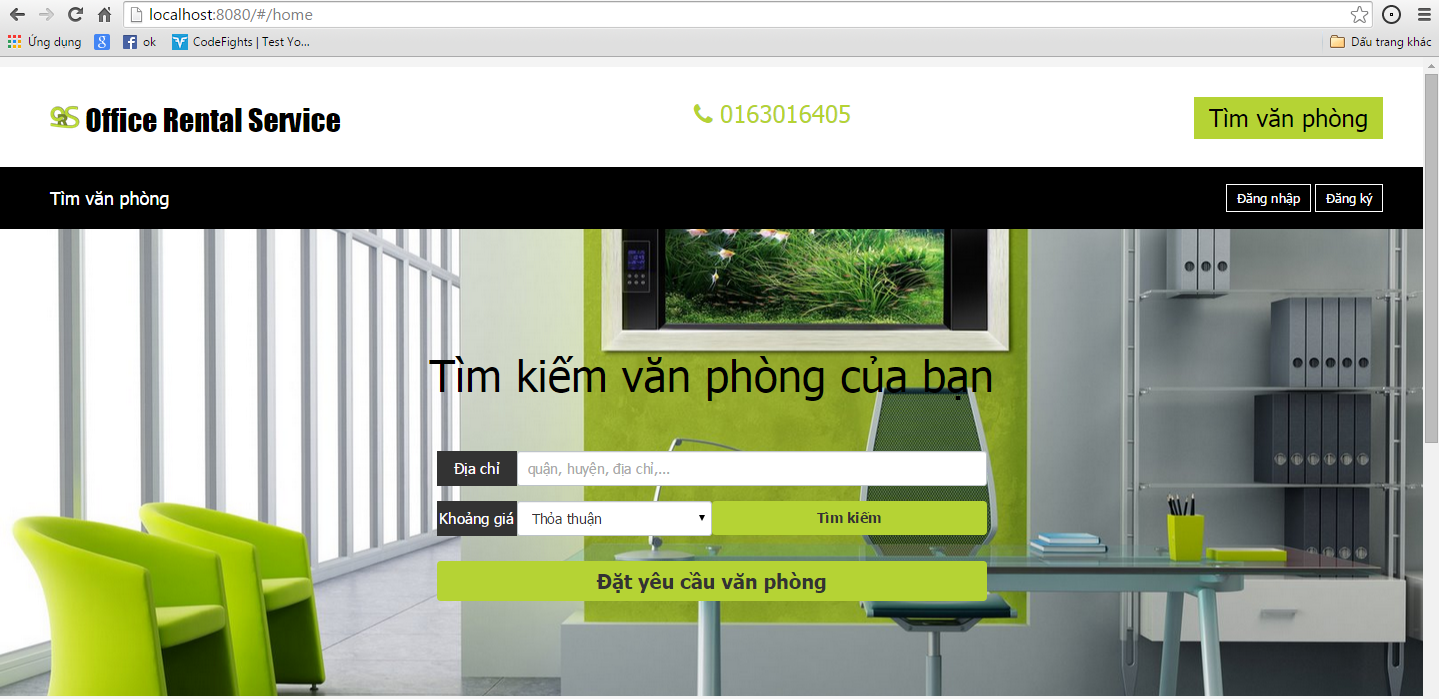
**Figure 7: Restart Server (Linux)**

* + Linux: run command
    - service tomcat7 restart



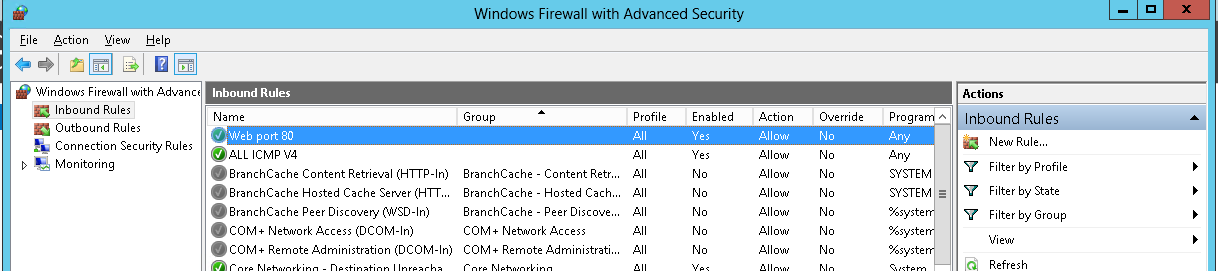
**Figure 7: Restart Server (Linux)**

* Open in <http://localhost:8080/>



**Figure 9: Deploy Web Application On Server**

* Configure firewall setting (Windows): Enable the installed port of tomcat (80 or 8080)
  + Open Windows Firewall with Advanced Security -> Inbound Rules -> New rule… -> Choose Port -> Press Next -> Choose TCP and type Specific local ports: (Example 80, 8080) -> Press Next -> Allow the connection -> Next -> Select all (default) -> Next -> Enter the name (example Web port 80) -> Finish



**Figure 9: Configure firewall setting**

### **Client side environment setting**

Client side should have one of these following browser that support HTML5 and CSS3:

* Safari 5 and above
* Google Chrome 25 and above
* Firefox 15 and above
* Opera 12 and above
* Internet Explorer 10 and above