Deployment Walk through

## Introduction

* We built a war file to be deployed onto the Development server [rho.coe.neu.edu]
* The procedure for connecting to the deployment server can be found in the HOWTO: Deployment Server document.
* The server runs a tomcat7 server for hosting applications which internally uses jre 1.7
* The mysql database can be connected in 2 modes viz. the admin and the user.

## Connecting to the portal & hosting the application

* We log onto <http://rho.coe.neu.edu:8080/manager/html> for a manager webapp that lists all the running applications
* As you scroll down the page, there is a subtitle that allows you to upload war files
* Clicking on a button under the subtitle to browse through your local disk and select the jar that needs to be deployed
* Once you hit deploy, the jar uploads (whose progress can be seen in the lower left corner) shows your application on the list of applications that are currently running
* If all goes well, your application starts and can be accessed through <http://rho.coeneu.edu:8080/ClubUML/>

## Database Connection

* We ran the mysql-workbench via xming so that we could see the interface on our desktop.
* This made it simple to run SQL scripts and see the tables in a GUI form
* We first tried creating the database in user mode, but failed. So we created it under the admin.
* We put all our tables in place. The whole script refused it run in one shot, so we had to make individual tables.
* Finally the database was in place.
* Unfortunately the database port is not open for public access. Its claimed that its open for localhost (we could not connect our app with it for some connection forbidden reasons)

## Issues we faced

* At first we did not have write access to the server folders where the war was supposed to be deployed.
* After resolving the write access, we needed to restart the tomcat server because the war is deployed when the tomcat server comes up. But that’s a privileged action and we are normal users on that machine
* Then we were added to a group that gave us write access to a particular folder, but we could not change/access any other user files who belonged to the same group. E.g if one uploads a file, and another colleague wants to change some configuration, he could not change it because it was uploaded by someone else though they belong to the same group and were working on the same project.
* This is still not resolved then we asked for a way to restart the tomcat application when we were given this manager portal. We can upload war files from here and it automatically gets deployed.
* We tried that too, but did not work, because the default configuration of the server is to accept wars no bigger than 50 MB. Our application was 62MB. This error wasn’t even displayed. We had to sit with the sysadmin who ran through the logs to find this out. The allowed file size is 150MB now.
* Now that we could upload the jar and the first page being displayed, we ran into connection issues with the database connection, our app was refused to connect to mysql as we tried to register a user through the application.
* We did not have admin access so we were unable to read the logs for both our application (as it is hosted under tomcat7 user privilege which we can’t access) and mysql logs for refusing the connection.
* So we ended up putting some small applications which returned debug statements as strings back to the browser – The technique struts use to render a view, we propagated the error string as the return string. If you don’t define a mapping the return string pops up on the browser saying no view found, but we could evidently see that the connection was refused by the database.
* To find the details we tried to put some detailed debug statements but unfortunately, the tomcat server ran into a perm gen space error which needs a restart and is a privilege action.