Things to remember while performing JSP Beans, tag-lib and servlet programs.

(Basic is same for Windows , linux or unix based operating system)

**If program doesn't work, just restart the tomcat (surely it will, then).

JSP Beans ::

- 1. Put your jsp file in the webapps folder of your Tomcat.
- 2. Create a WEB-INF folder in the folder where you store your JSP files usually the webapps folder, if the folder already exists then follow further steps.
- 3. Create a 'classes' folder in the WEB-INF folder.
- 4. Inside the classes folder create a folder with your package name (package name that you give in your program like for eg. MyPack).
- 5. Store all your java files inside "MyPack" folder
- 6. You need to compile your java file before you run your jsp program in the browser.
- 7. Remember, you need to just compile and not run this java file (i.e no need to do (\$java JavaFile), running it doesn't make sense because it doesn't have a main function. (And you know how main is the main function in java).
- 8. Try these steps with programs register.jsp and setUserPass.java, programs are there in the repo itself.

Tag-lib::

- 1. Put your jsp file in the webapps folder of your Tomcat.
- 2. Create a 'WEB-INF' folder in the folder where you store your JSP files usually the webapps folder, if the folder already exists then follow further steps.
- **3.** Create a 'classes' folder in the WEB-INF folder.
- **4.** Inside the classes folder create a folder with your package name (package name can be anything you want to give but a descriptive would be nice like :: MyPack, MathPackage, LoginPagePackage et cetera).
- 5. You need to have your tld file in the WEB-INF folder (i.e adjacent to classes folder) and java file inside your package folder you created.
- 6. You need to compile this java file, in order to do that you need to additionally use the jsp-api.jar file while compilation to do that use the following command while compiling the java file javac -cp .; C:/xampp/tomcat/lib/jsp-api.jar hello.java
- 7.But if you want to make it a bit you can copy paste the jsp-api.jar file in the package folder itself and compile in the same way just don't mention the address instead just the jsp-api.jar file name :: javac -cp ".;jsp-api.jar" hello.java
- 8. While giving the jsp-api.jar file path check the path you're giving after; since I'm using Xampp I've that path, you'll find all the jar files in your tomcat's lib folder, you're required to give that path according to your system.
- **9.** Remember, once again you're not required to run the program after compiling, once this is done, go to your browser after starting the Tomcat of course and run the jsp file.
- **10.** Use taglibeg.jsp, hello.tld and hello.java files while performing above steps. (Again all these files are available in today's practical directory i.e 21st_April_Wed)

Servlet Programs ::

- 1. Create a folder in your webapps folder and name it anything you want, for example "servlet".
- 2. Now, inside this folder create a WEB-INF folder.
- 3. Inside WEB-INF folder create folder named 'classes' and
- **4.** You need to place your web.xml file in the WEB-INF folder.
- **5.** You need to place your java files(servlets) in the classes folder directly. (You can also a create a package folder if you want but not necessary and place the java files in them.)
- **6.** In Your lib folder there is another .jar file which is named as servlet-api.jar and you need to place it in your classes folder where you have kept your compiled java files.
- 7. You need to compile this java file using the following command:: javac-cp ".;servlet-api.jar" hello.java (again am assuming you are placing your servlet-api.jar file in your classes folder itself). (for unix based operating system used (: instead of; in the command).
- **8.** If you want , you can keep the servlet-api.jar file in the lib folder itself and provide the entire address while running the command but It's much more easier to place the file in the classes folder itself and run.
- **9.** If you're using the database in the servlet then you need to keep a mysql-connector.jar file in the lib folder, maybe some of you won't require this but still in case it shows error, do this step.
- **10.** And if you want to add two of more .jar files at once then you can run in the following way: javac -cp "./firstJarFile.jar: ./secondJarFile.jar" javaFile.java (if you get error while running database programs then you may need to add multiple .jar files at once for eg: servlet-api.jar and mysql-connector.jar at once , you can use the following way to do that)
- **11.** Now, one thing you may wonder that we don't have a jsp file here so what are we suppose to run in the browser, well good thinking. Remember, the web.xml file in the WEB-INF folder. It has the <url-pattern> tag, this tag is where you have a mentioned the name that you are required to run in the browser, suppose the name is 'genericsery'.
- **12.** Then you'll be running the program in browser has :: localhost:8080/servlet/genericserv (remember in the first step itself we made a folder name "servlet")
- 13. Perform these steps with the genericserv.java and web.xml file (Again these files /Programs are available in the 21st_April_Wed Directory on GitHub repo).

Some additional things to remember ::

- 1. This may not be the most accurate description but here is an observation.
- **2.** Apache / tomcat has a certain thing like cache so when you make a change run the program, it is possible that it may show you the same output has previous, this happens because it is not running the entire computation it displays the result from cache.
- 3. So, whenever you make a change in your program, you're suppose to restart your tomcat server.
- 4. Well, it is kind of tedious and frustrating but it is what it is.
- **5.** And if that doesn't work (Restart your Whole System) surely. Some programs you don't even intend to run will also run afterwards.
- **6.** Happy Coding!
- 7. Ding Ding Ding Ding ...

You can find all the programs on the GitHub Repository.

https://github.com/iYashBorse/TYBSc-CS/tree/master/Current_9thTrimester

All Unix and Java Program till date are available according to the date they where performed.

If you face any issue'\s, please mail us the screenshot with the problem you facing. (glad to help).

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