CSCI 729: Topics in Data Management (Web Services)

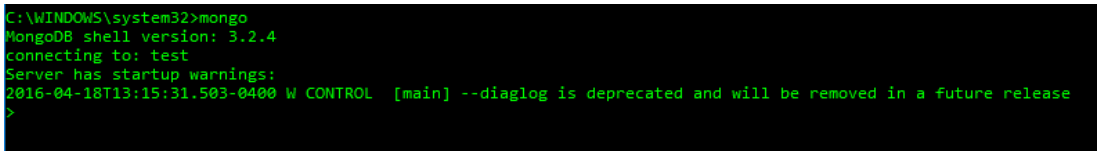
Programming Assignment 4

Read me – Install and test the Web service data analysis system

Name: Harshit Shah (hrs8207@rit.edu) **Application:** Service classification using Weka J48

Install and test MongoDB on windows computer:

- Download the latest 64-bit MSI version of windows. https://www.mongodb.org/downloads. Run the installer (.msi file)
- Add it to your path of environment variables. Should be from: C:\Program Files\MongoDB\Server\3.0\bin
- Create a mongo.config file with log and data directory details. (Reference: http://www.mkyong.com/mongodb/how-to-install-mongodb-on-windows/)
- Run MongoDB
    - Open cmd as an administrator and run the command to setup and start the service:
      mongod --config "C:\Program Files\MongoDB\mongo.config" --install
    - Start the MongoDB service from services (from Task Manager).
    - Now run 'mongo' command. If you get the following screen, you are successfully connected to MongoDb.



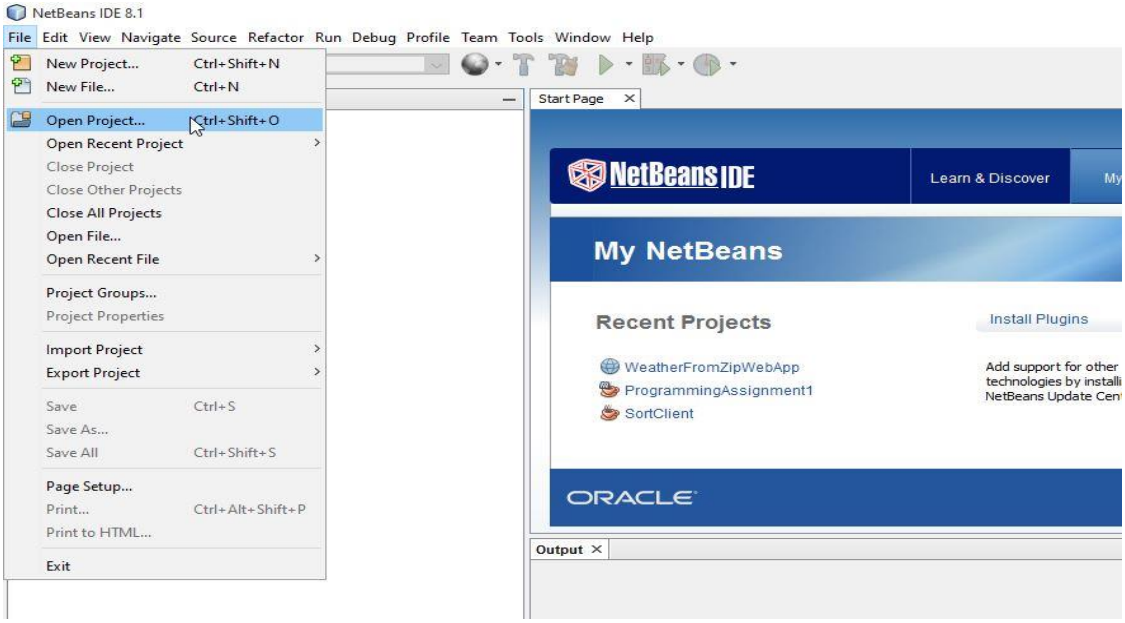
    - Now type command show databases to check the existing databases and test MongoDb.

After installing MongoDb, out next step is to install the Maven based Spring MVC Web Application with following instructions.

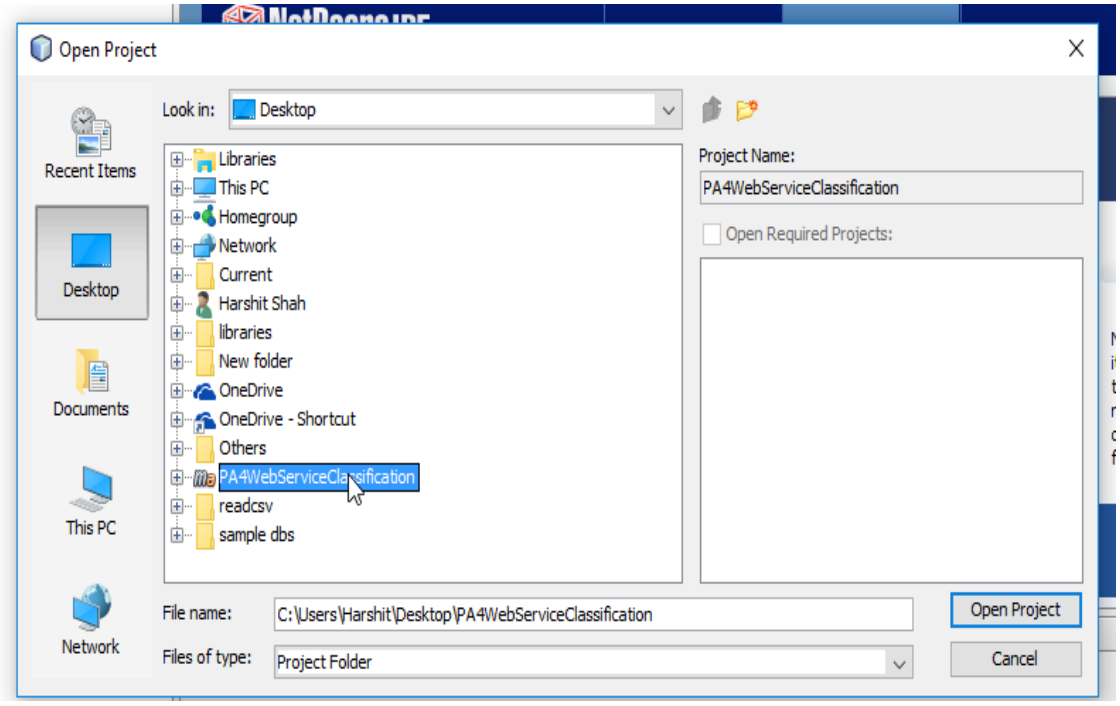
Install and Test 'ProgrammableWeb MongoDB' Web Application:

- Unzip file 'Shah_Harshit_PA4.zip' and extract the project folder 'PA4WebServiceClassification'.
- Install latest version of NetBeans IDE 8.1 with latest glassfish server (version: 4.1.1 used in this app.)

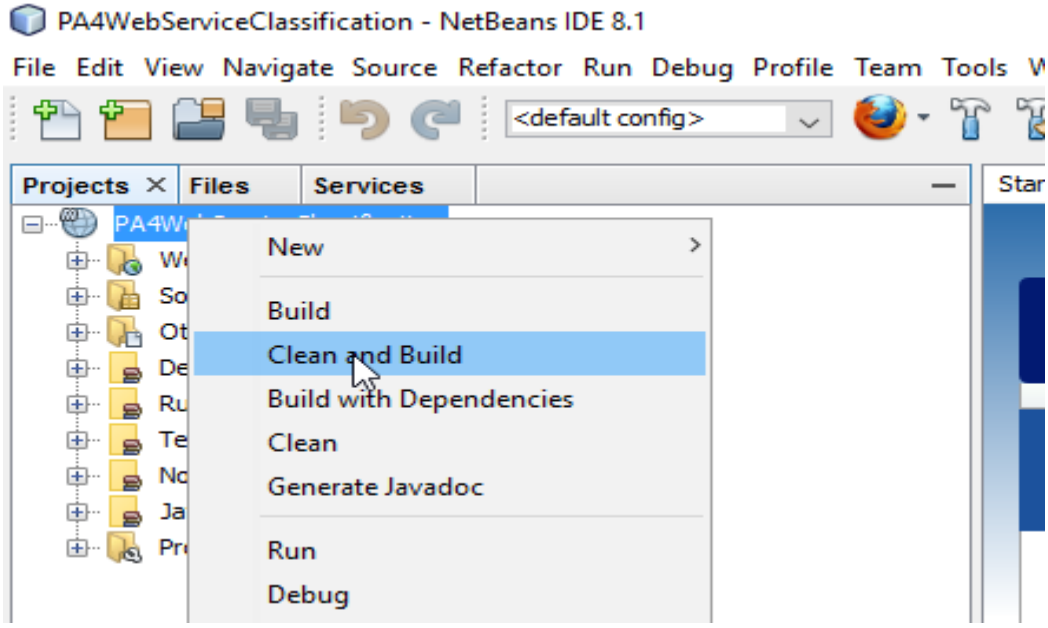
- Open NetBeans IDE and select option ‘FILE -> Open Project’.



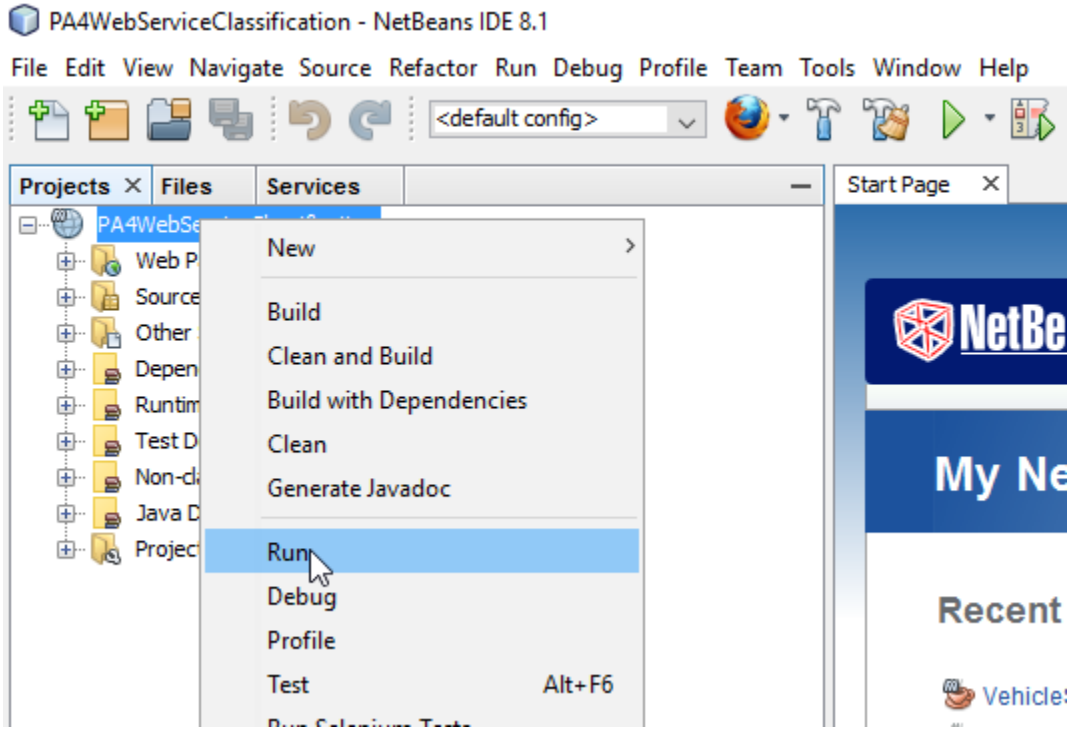
- Now select extracted directory ‘PA4WebServiceClassification’ from ‘Open Project’ dialog.



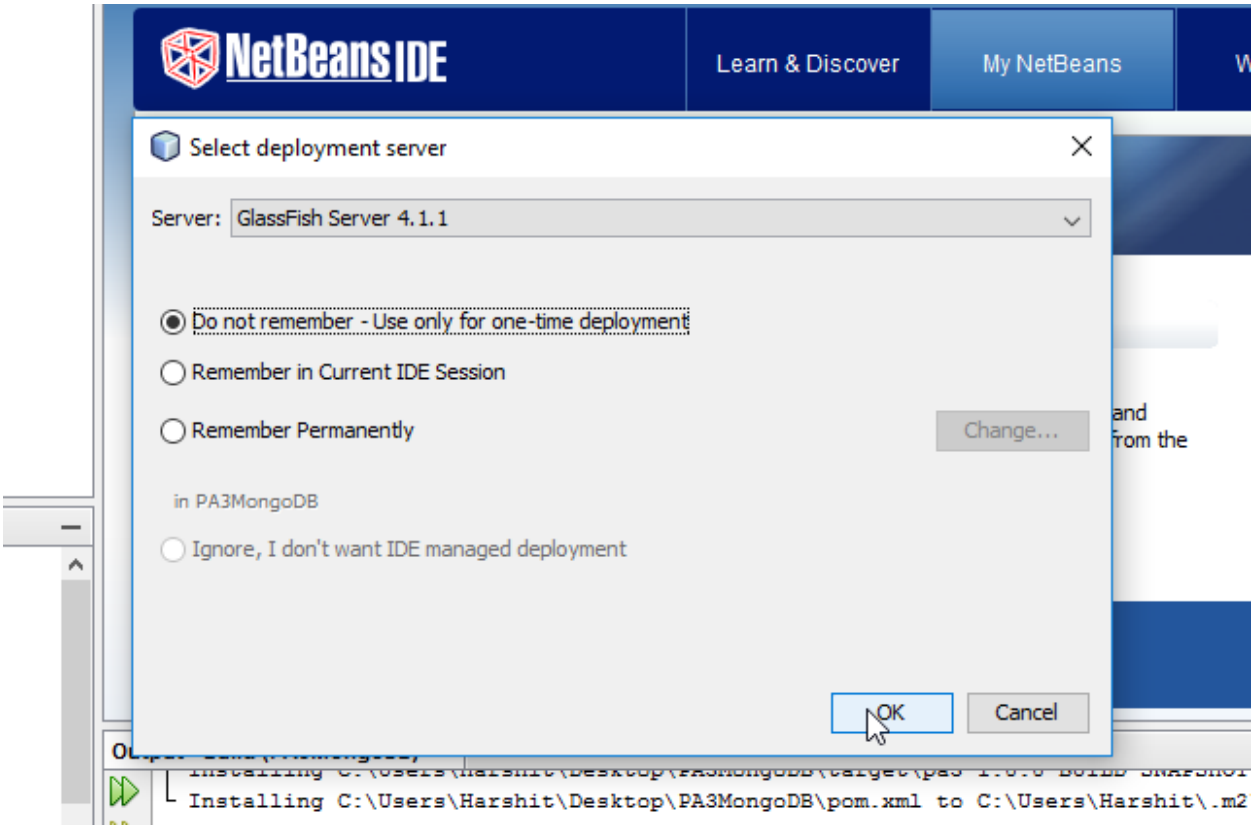
- Now right click on the project and select ‘Clean and Build’ option to build the Web Service project.



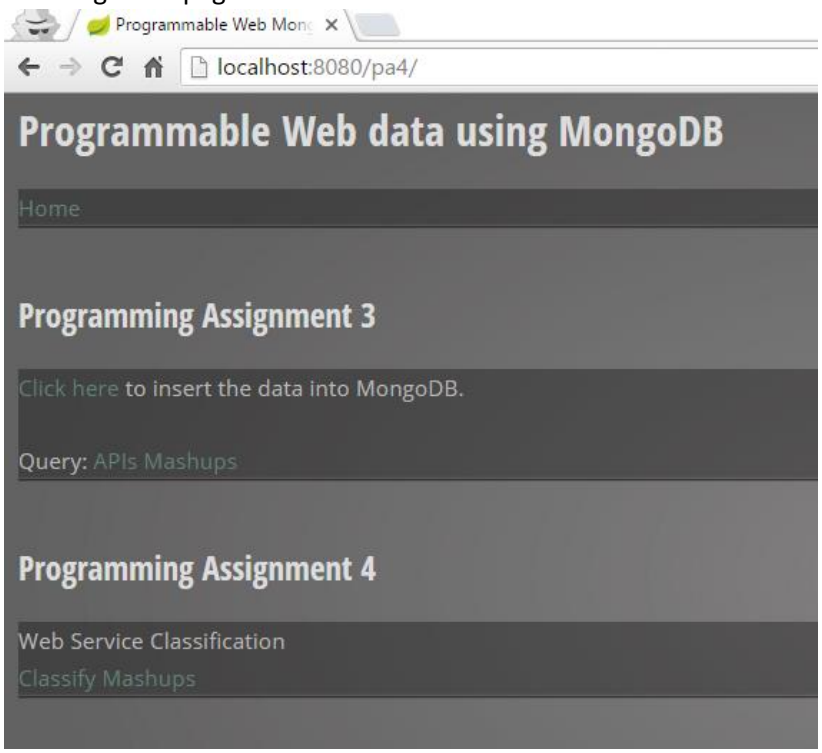
- Run and deploy the project on the glassfish server by selecting ‘Run’ option.



- Select deployment server as glassfish server.



- It will take a while for downloading dependencies and deploying the project onto Glassfish and it will open the following homepage.



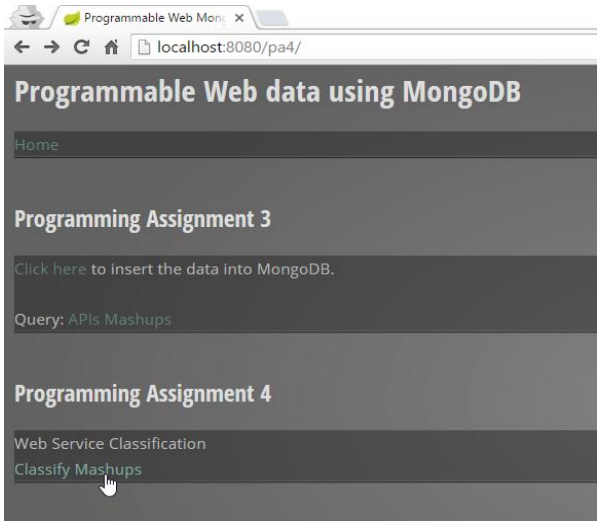
- First perform the “Programming Assignment 3” part. Click on “Click here” to insert the data into MongoDB. After successfully inserting data run the following command from command prompt to generate “.csv” file of Mashup data.

  mongoexport -d ProgrammableWeb -c mashup -f id,title,summary,rating,name,label,author,description,type,downloads,useCount,SampleUrl,dateModified,numComments,commentsUrl,tags,APIs,updated --csv -o C:/mashup.csv

- After successfully generation “mashup.csv” file, run the **python script** ‘*ReadCSV.py*’ and generate the “mashup_new.csv” file and clean it following the steps mentioned in the design document.

- Finally, perform data analysis ‘Web service classification’ on using the “mashup_cleaned.csv” file as input in “Weka” and apply J48 classification algorithm to classify ratings from One to Five.

- Save, the ‘.model’ file from Weka which is classification model based on historical web services data. Now, run our application by clicking on “Classify Mashup” under the Programming Assignment 4 to predict the rating for the new Web service as following.



- Test the Web service data analysis system (Web service classification: Mashup classification) as explained in the design document.