User manual

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Prerequisites

The following must be downloaded and installed to run the project.

- Java 8 http://www.oracle.com/technetwork/java/javase/downloads/index-jsp-138363.html
- NodeJS (version 6.x) https://nodejs.org/en/ (ensure NPM is also installed).
- MongoDB - https://www.mongodb.com/download-center#community
- Maven - https://maven.apache.org/download.cgi

Unfortunately the data used for clustering appears to have been taken down from the University of Alberta website. The data used as part of the project in a zip file on DCU school of computing webspace, found here:
http://student.computing.dcu.ie/~saccarn2/pokerUofA/pokerdata.zip

Download and extract this zip file into an appropriate directory.

Project set up

Note: MongoDB must be running as a service on port 27017 (default MongoDB port) in the background.

Steps

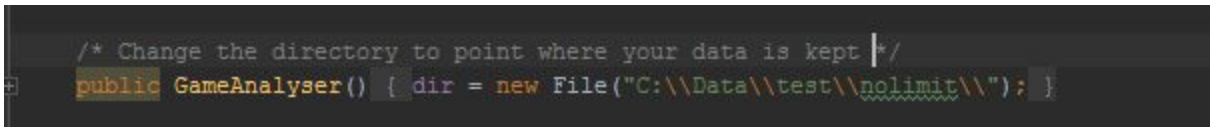
Downloading project

- Use git to clone repository **or** download zip file and extract to desired directory.

- Use this to clone repo using http: https://gitlab.computing.dcu.ie/saccarn2/2017-ca400-saccarn2.git
- Download zip file from here : https://gitlab.computing.dcu.ie/saccarn2/2017-ca400-saccarn2/tree/master

Setting Up Data_Processing

- Go to Data_Processing directory
- Using an editor, open com.saccarn.poker.dataprocessing.GameAnalyser.
- Go to constructor with one argument of the class- looks like this:



- Change the directory path to point where the poker data was extracted to.
- Using the command line, cd to Data_Processing directory
- Run mvn install
- Using the command line, cd to AI_Agent directory
- Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.dbprocessor.DataLoader"
- Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.dbprocessor.PlayerTypeClusterer"

Running System

- Using the command line, cd into AI_Agent directory.
- Run mvn install
- Using the command line (cmd1), cd into Poker_Server directory
- Run mvn install
- Open new command line (cmd2), cd into the ui/server directory.
- Run npm install
- Run npm install gulp -g . This installs gulp globally.
- With cmd1 run ‘mvn exec:java’ in the Poker_Server directory.
- With cmd2, in the ui/server directory run ‘gulp’.

Wait a few seconds, and open up localhost:3000 in the browser. You should presented with the login page of the web app.

Note:
The web app listens for connections on port 3000 - this can be changed by editing the PORT_NUM variable in the app.js file in ui/server.

The java server listens for connections on port 3500. This can be changed by changing the port variable in the Server class in the Poker_Server module. The JAVA_PORT variable in app.js of ui/server must also be changed to match this number.

Unit Tests

The junit tests of every java module can be run by going into the module directory using the command line and running:

- mvn test

The output to the console will include how many tests were run, how many were successful and how many failures there were.

Validation Module

To run the classes in the validation module

- Go the validation module directory using the command line
- To run opponent model tests
    - Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.opponentmodels.TEST_NAME" where TEST_NAME is the name of test class.
- To run bet pass parameter model tests
    - Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.testsbetparams.TEST_NAME" where TEST_NAME is the name of test class.
- To run 'common hand' tests
    - Run mvn exec:java -D exec.mainClass="com.saccarn.poker.testscommonhandvalues.T_N" where T_N is the name of test class.
- To run 'hand potential' tests
    - Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.testshandpotential.T_N" where T_N is the name of test class.
- To run pre flop tests
    - Run mvn exec:java -Dexec.mainClass="com.saccarn.poker.testspreflopvalues.T_N" where T_N is the name of test class.