A User Manual for the Student View Applet

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Abstract

This user manual explains how to use the student view applet. The student view applet lets students log in with their user names and passwords, and they can view their own data statically and dynamically. All these data are collected from their interactions with our agent.

1.1 The student view applet

The student view applet shows an individual data based on the user name and the password a student types in at the log-in panel. The student view applet can be found at `http://cse.unl.edu/agents/ILMDA/interfaces/studentView.html`. Please be patient because it sometimes takes up to 30 seconds to load the applet. If you get any error messages such as "Applet teacherView notinited" or "Loading Java Applet Failed...", you can try refreshing the page or clearing the cache of your browser. If this does not help you, please let me know via e-mail at `aendo@cse.unl.edu`.

1.1.1 Data and statistics available to the student

There are three data sets shown to every student who successfully logged in: average data for each learning material (tutorials, examples, problems), and the means and the standard deviations of the data from all the students for all the problems. The average data for each learning material includes "numSessions", "aveTtrlTime", "aveTtrlClicks", "aveExmp-Time", "aveExmpClicks", "aveProbTime", "aveProbClicks", "numProb", "successes", and "aveGrade". The means and standard deviations of the data from all the students for all the problems include "numSessions", "aveProbTime (ms)", "aveProbTime (hr:min:sec)", "numProb", "successes", and "aveGrade". The meanings of the data here are as shown in Table 1.1

Table 1.1: The meanings of each data for the general data in the student view applet

numSessions	The number of sessions the student took or the number of log-ins
aveTtrlTime	The average time the student spent on each tutorial
aveTtrlClicks	The average number of clicks the student made in each tutorial
aveExmpTime	The average time the student spent on each example
aveExmpClicks	The average number of clicks the student made in each example
aveProbTime	The average time the student spent on each problem
aveProbClicks	The average number of clicks the student made in each problem
numProb	The number of problems a student worked on
successes	The number of successes a student made in the problems
aveGrade	The average grade of a student in the problems

For the data based on an individual student, there are again three sets of data: each for tutorial statistics, example statistics, and the problem statistics. The data for the tutorial statistics consist of "topic", "ttrlID", "timeSpent (ms)", and "timeSpent (hr:min:sec)". The data for the example statistics are "topic", "exmpID", "timesViewed", "timeSpent (ms)", and "timeSpent (hr:min:sec)". Then the data for problem statistics are "topic", "probID", "timesViewed", "nrOfSuccesses", "timeSpent (ms)", and "timeSpent (hr:min:sec)". The meanings of these data are in Table 1.2

Table 1.2: The meanings of each data for the individual data in the student view applet

topic	The topic name
ttrlID	The tutorial ID assigned to a tutorial
timeSpent (ms)	The time the student spent in milliseconds
timeSpent (hr:min:sec)	The time the student spent in the format of hours:minutes:seconds
exmpID	The example ID assigned to the example
timesViewed	The number of times the learning material is viewed
probID	The problem ID assigned to the problem
nrOfSuccesses	The number of successes the student made in this problems

1.1.2   How to use the student view applet

A student has to provide his or her user name and password and if they match the information in our database, the student can log in to check his or her data. Otherwise, it shows the red message saying "Username or password incorrect." After typing in the user name and the password, you can simply hit [Enter] or click the "Login" button to log in. You can also click the "Quit (works only with IE)" button to quit, but this button works only with Internet Explorer as it says. Or you can just close your browser window to quit. The screenshot of the log-in panel is shown in Figure 1.1.

Once you successfully log in, you can see the three data tables on the top: average data for each learning material (tutorials, examples, problems), and the means and the standard deviations of the data from all the students for all the problems. To check his or her own data, you can just choose any one topic from the drop-down list and whatever learning material types you want to check from the checkbox both shown at the top. Once you select a topic name and learning material types, you need to click the "Submit" button to see the data tables showing up in a moment along with one "Clear!" button next to it. You can sort the data values, erase any table you don't need, and change any columns if you want by the same way as stated before. To log out from your account, please just close the internet browser you are using or the tab if applicable. The screenshot of the individual data panel in the student view applet is shown in Figure 1.2. (Note: Numbers are deliberately blurred to protect the privacy of the student.)

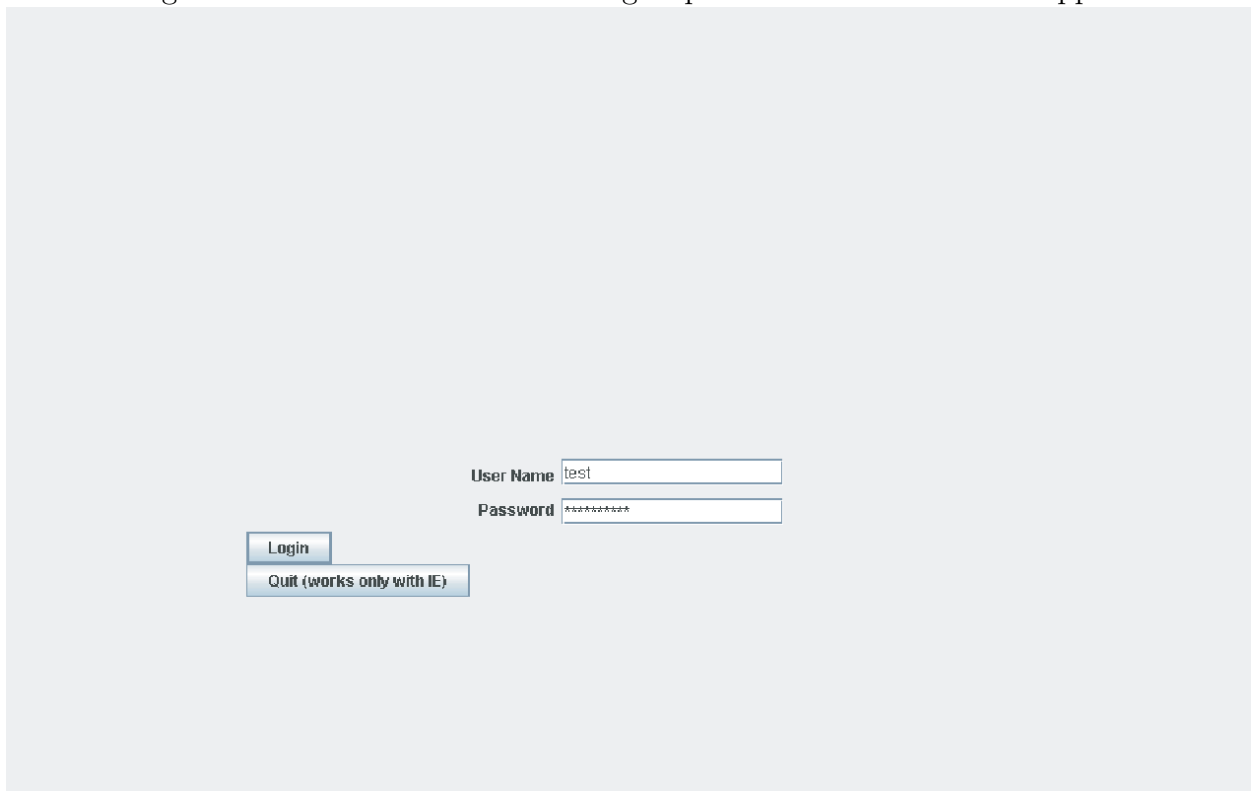Figure 1.1: The screenshot of the log-in panel in the student view applet

Figure 1.2: The screenshot of the individual data in the student view applet

Data of ▮▮▮▮▮▮

| Submit | File IO ▼ | ☑ Tutorial | ☐ Example | ☑ Problem |

Average Data for Each Learning Material (Tutorials, Examples, Problems)

numSessions	aveTtrlTime	aveTtrlClicks	aveExmpTime	aveExmpClicks	aveProbTime	aveProbClicks	numProb	successes	aveGrade

The Means of the Data from All the Students for All the Problems

numSessions	aveProbTime (ms)	aveProbTime (hr:min:sec)	numProb	successes	aveGrade
100	2643094	0:44:3	5	36	0.4328

The Standard Deviations of the Data from All the Students for All the Problems

numSessions	aveProbTime (ms)	aveProbTime (hr:min:sec)	numProb	successes	aveGrade
560.5705091234507	3.52432794081637E7	9:47:23	16.935202250602654	97.01343992912385	0.28098322252975273

Tutorial Statistics

topic	ttrlID	timeSpent (ms)	timeSpent (hr:min:sec)	Clear!
File IO	118			

Problem Statistics (You viewed 23 problems of this topic.)

topic	probID	timesViewed	nrOfSuccesses	timeSpent (ms)	timeSpent (hr:min:sec)	Clear!
File IO	1117					
File IO	1118					
File IO	1119					
File IO	1120					
File IO	1121					
File IO	1122					
File IO	1123					
File IO	1124					
File IO	1125					
File IO	1126					
File IO	1127					
File IO	1128					
File IO	1129					
File IO	1130					
File IO	1131					
File IO	1132					