

MATH MATTERS

ADMIN GUIDE

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OVERVIEW

Admin utility is used for creating player accounts from existing student information from school database. Player database is specific to 3D Games project and does not in any way alter the school database. Administrator of the school is responsible for importing student information from school database into player database using this admin utility.

The first step in importing student data into player database is to export the student information into comma separated format in a text file with the following column order (Please note that there are *no spaces*):

`studentid,lastname,firstname,grade,gender,schoolId,teacherId`

This file needs to be *text file* not word document. Using admin utility we can use this file to import student information as detailed in next sections. Once the student information is created, player account is created automatically by admin utility for each student with the username is same as studentid and password is first four characters of lastname followed by studentid.

A guest account is also created with guest as password to allow students/any one with no account setup yet. Since player performance is logged to database as soon as the player answered questions etc., multiple logins with same user name could potentially overwrite the performance information in database.

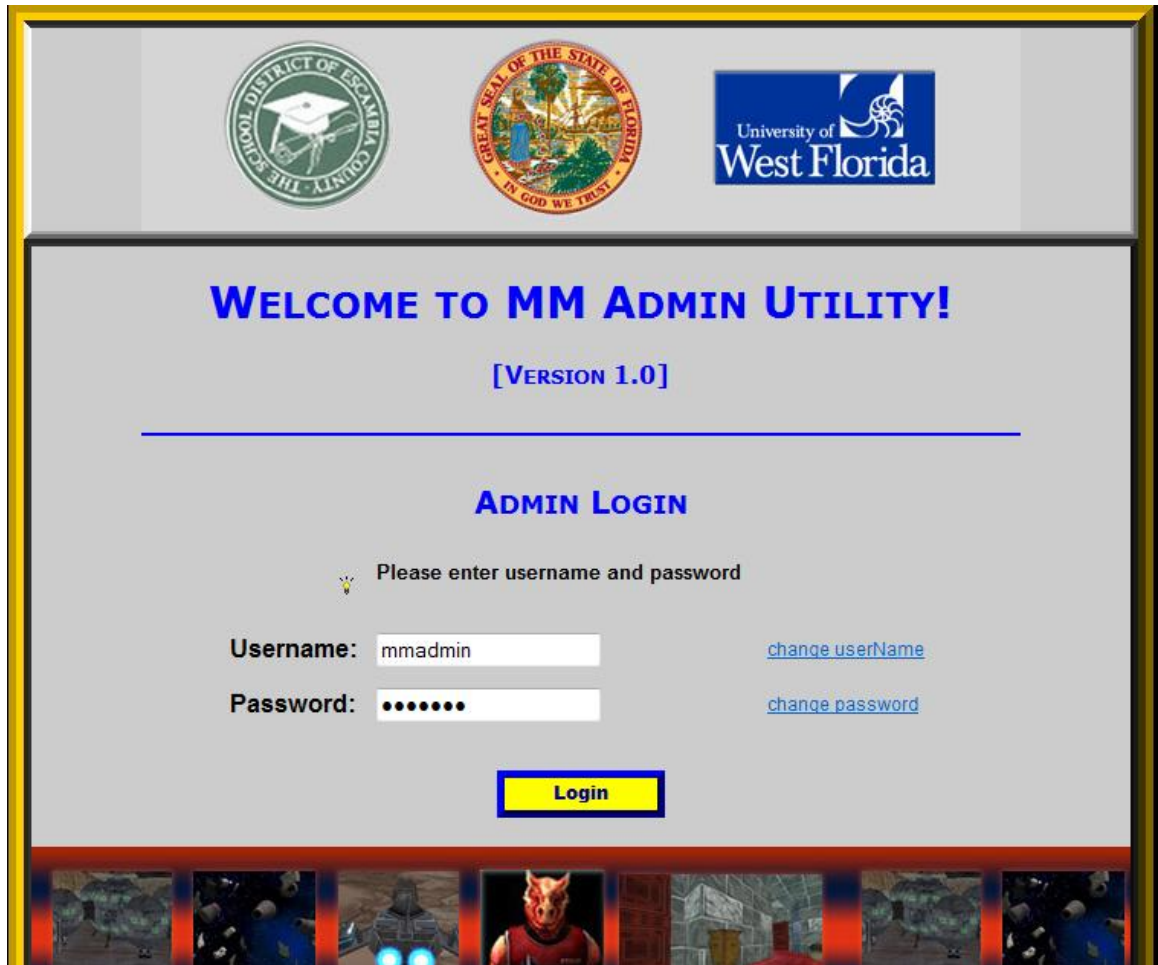
The admin utility also has features for viewing student statistics and to get report of student performance. As explained below with the help of diagrams.

ACCESSING ADMIN UTILITY

Open a browser in IE or FireFox and type in the following command (this must be accessed on the server, so please write this down and send it to your Server Administrator):

<http://localhost:9090/mmadmin/jsp/index.jsp>

This brings up the Admin Login screen as shown below:



WELCOME TO MM ADMIN UTILITY!
[VERSION 1.0]

ADMIN LOGIN

Please enter username and password

Username: [change userName](#)

Password: [change password](#)

Login

By default both username and password are set to 'mmadmin' which can be changed by using the links above. Login to admin utility by entering the username and password and clicking on Login button.

If the login is successful it will display the homepage as below with several options to select as required.



PLAYER ADMINISTRATION

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-  [Show Current Users](#)
-  [Add New Games](#)
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PLAYER ADMINISTRATION FUNCTIONS

All player administration functions are explained in detail in following sections

Import Student Data into Player Database

This operation imports student information from a text file with records exported comma separated columns in the following order (Please note that there are *no spaces*).

`studentid,schoolid,lastname,firstname,grade,gender,schoolId,teacherId`

The order of the columns is very important since the player records are created using this information which is copied into respective columns.

To start import operation click on 'Import Student Data' which displays the following screen for the import function.

Click **Browse** to browse to the text file that contains previously exported student information from school database.

OR

PLAYER ADMINISTRATION FUNCTIONS

Type in the full path of the file including file name which contains the student information.

Then click on **Import** button.

Upon successful import of the data, it goes back to home page again for selecting different option(s).

Note:

Multiple imports of the same text file will not created duplicate records as Admin Utility filters students who already have player accounts.

Show Current Users

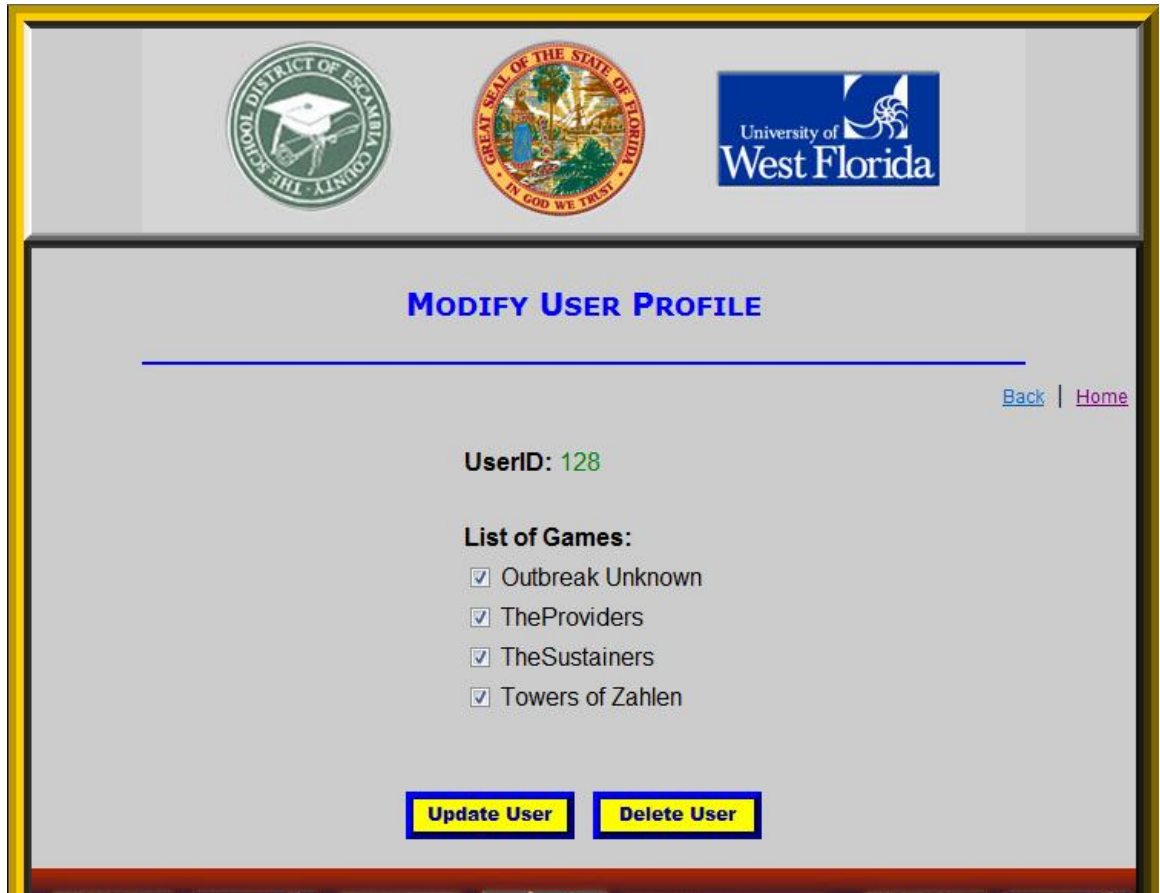
This option displays all the users currently imported and assigned player accounts in the player database. This can be used to quickly glance at the students list. Click on the link **Show Current Users** on the home page to display current users.

The link 'Home' on right side of the screen can be used to navigate back to homepage.



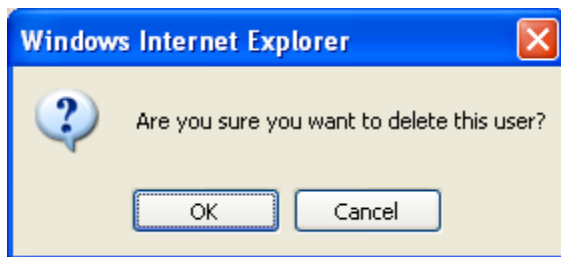
Clicking on any **PlayerID** in above screen shows details of the users and also an option to delete the user just in case the student is no longer active.

PLAYER ADMINISTRATION FUNCTIONS



Check or uncheck to assign games to the player's profile followed by a click on **Update User** button to make changes to the profile.

Click the **Delete User** to delete the user from the database which brings up a pop message to make sure that the user not deleted accidentally.

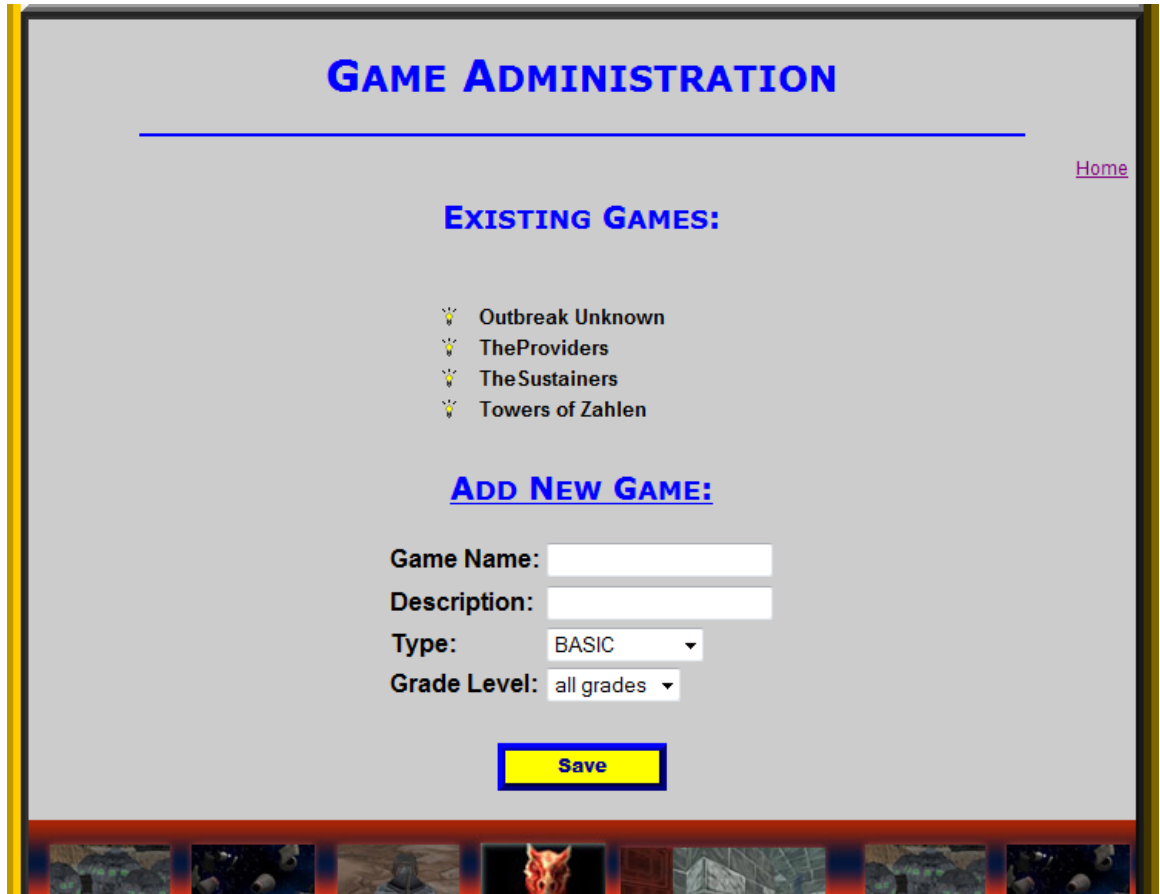


Click **Ok** or **Cancel** to confirm delete action

Add New Games

Add New Games is not a frequently used operation and is meant for future enhancement and addition of games manually.

Click on the link **Add New Games** on the home page which displays the **Game Administration** screen with a listing of games currently existing in the database.



The screenshot shows a web interface titled "GAME ADMINISTRATION" in blue text. A horizontal blue line is below the title. In the top right corner, there is a purple link labeled "Home". Below the title, the text "EXISTING GAMES:" is displayed in blue. Underneath, there is a list of four games, each preceded by a small yellow star icon: "Outbreak Unknown", "TheProviders", "TheSustainers", and "Towers of Zahlen". Below this list, the text "ADD NEW GAME:" is displayed in blue. Underneath, there are four input fields: "Game Name:" (a white text box), "Description:" (a white text box), "Type:" (a dropdown menu with "BASIC" selected), and "Grade Level:" (a dropdown menu with "all grades" selected). Below these fields is a yellow button with the word "Save" in black text. At the bottom of the interface, there is a horizontal strip of eight small, square game thumbnails.

Key in the name of the new game, its description, type, and grade level

Click **Save** to add the game to the list of games

Exporting Performance Data

The function exports relevant data to a file or database. The following information exported to specified (Please note that there are *no spaces*):

[studentid,schoolid,gamename,status,gamescore,averageattempts,avgtime](#)

Click on the link **Export Performance Data** on the home page which displays the **Export Performance Data** screen as below.

The screenshot shows a web interface for exporting player performance data. At the top, there are three logos: the Escambia County School District logo, the Great Seal of the State of Florida, and the University of West Florida logo. The main heading is "EXPORTING PLAYER PERFORMANCE DATA". Below the heading, there is a "Home" link. The section "COLUMNS BEING EXPORTED:" lists the following columns: playerid (studentid), schoolid, gamename, status, gamescore, questionpct, averageattempts, avgtime. There is a checked checkbox for "Export data to file". Below this, there is a "File:" label, an empty text input field, and a "Browse..." button. A yellow "Export" button is highlighted at the bottom of the form area.

Data can be exported to file (in comma separated form or to another database given the details of database).

To export data to a file, check the checkbox and then click **Browse** to browse to the text file you want to export the performance data (alternatively type in the full path to the file including the file name). Click the **Export** button.

To export to another database just key in the database information and click **Export** button.

Display Statistics

Player statistics include question answer performance along with time takes for answering questions. Click on the link **Display Statistics** on the home page to go to **Player Statistics** screen. There is option to sort the results based on score and average time taken.

The screenshot shows the 'PLAYER STATISTICS' web application interface. At the top, there are three logos: the Escambia County School District logo, the Great Seal of the State of Florida, and the University of West Florida logo. Below the logos, the title 'PLAYER STATISTICS' is centered. A search bar labeled 'PlayerID:' is present with a yellow 'Go' button. A 'Home' link is located in the top right corner. The main content is a table with the following data:

PlayerID	SchoolID	GameName	Status	Score	Average Attempts	Avg Time
120	101	Outbreak Unknown	inprogress	0	0	0
120	101	TheProviders	inprogress	0	0	0
120	101	TheSustainers	inprogress	0	0	0
120	101	Towers of Zahlen	inprogress	0	0	0
121	101	Outbreak Unknown	inprogress	0	0	0
121	101	TheProviders	inprogress	0	0	0

Click on a **PlayerID** to view detailed statistics for the player as below. There is option to sort the results based on score and average time taken. Sort can be done both ascending and descending order.

PLAYER ADMINISTRATION FUNCTIONS



DETAILED STATISTICS FOR

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GameName	Question	Result	Score <small>▲ ▼</small>	Number of Attempts	Total Time <small>▲ ▼</small>
Towers of Zahren	TZ1	correct	0	2	20
Towers of Zahren	TZ2	correct	0	3	40
Towers of Zahren	TZ3	incorrect	0	3	20
Towers of Zahren	TZ4	incorrect	0	3	20
Towers of Zahren	TZ5	incorrect	0	3	20
Towers of Zahren	TZ6	correct	0	1	30



Display report

This option is used to show a performance report of the student. Click on the link **Display report link** on the home page to get the **Player report** screen.



The screenshot displays a web interface for player statistics. At the top, there are three logos: the School District of Escambia County, the Great Seal of the State of Florida, and the University of West Florida. Below the logos, the title "PLAYER STATISTICS" is centered. A horizontal blue line separates the title from the input fields. On the right side, there is a "Home" link. The form contains two input fields: "Player ID:" and "School ID:". Below these fields is a yellow "Get Report" button. At the bottom of the page, there is a decorative banner with several small images showing different game environments and characters.

Enter PlayerID and School ID to get the player report. The screen below shows report in requested format.

PLAYER ADMINISTRATION FUNCTIONS

Math Matters in Careers an FLDOE Partnership Grant (ECSD and UWF)

Date: **Wed Sep 26 18:31:55 GMT 2007**

School ID: **sch12**

Student ID: **1201**

GameName	Math Question Type	Number of Questions	Number of Attempts	Total Time (secs)	Score
TheProviders		6	15	616	70

Logout

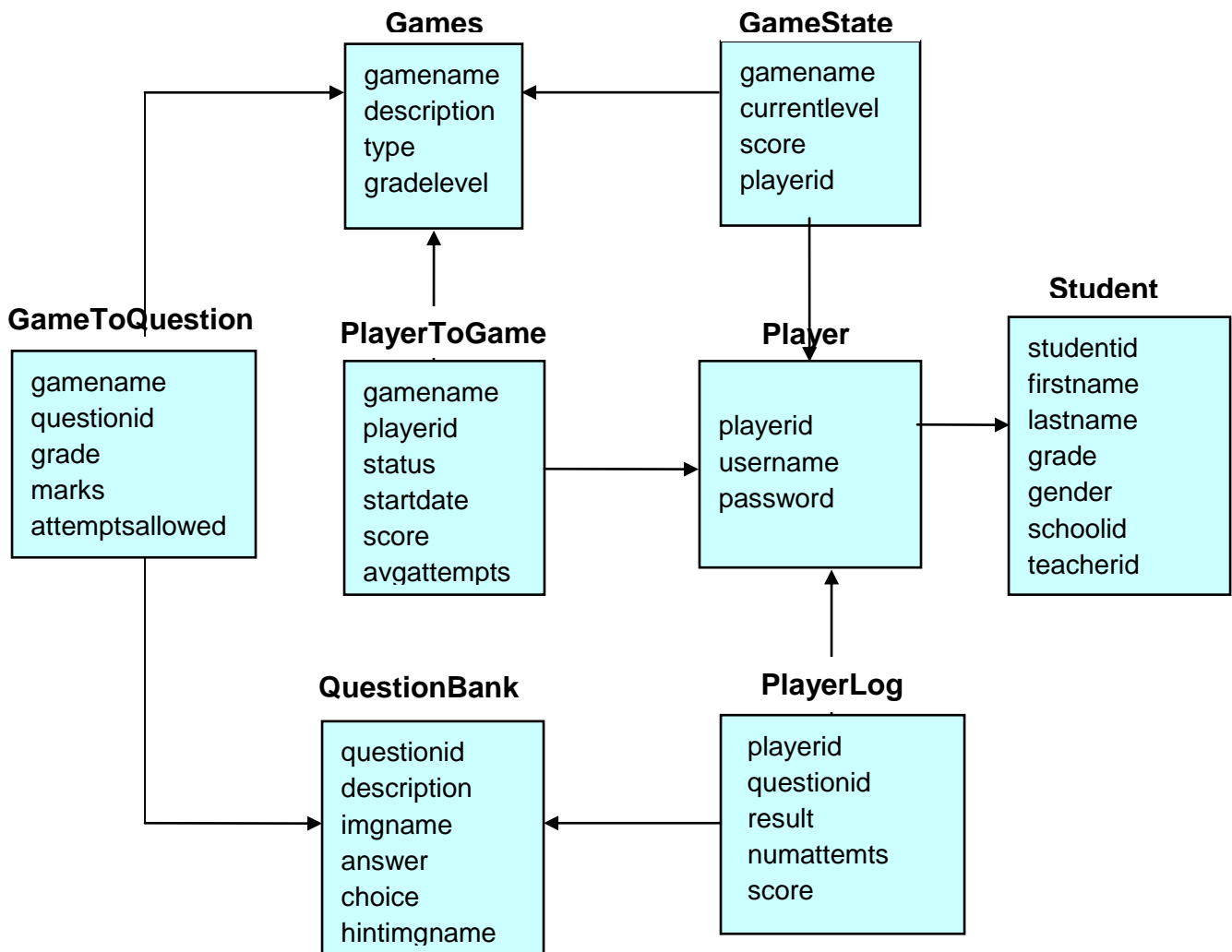
Click on the **Home** link to go back to the home page from any screen you are in which displays the **Player Administration** screen

Click on **Logout** to exit the admin utility application



Database Schema

The database schema for the Math Matters database consists of tables with vital information to authenticate a player before starting the game. This function is critical to generate a performance report for each player, and to retrieve any state information (if the player stopped at a specific level in previous session). The database schema design is outlined in the diagram below:



PLAYER ADMINISTRATION FUNCTIONS

Details of each table are provided below:

Student

This table contains information about the student. The information (only limited columns) is imported from the university database using Admin utility in **Read Only** mode. The process helps to validate the player as a student in the university, and to generate an accurate performance report.

Games

This table contains a list of the games, their description, and the grade level the game is designed for. When a user creates an account, games are assigned to the player based on the player's grade level.

Player

This table contains player information. A player is a student, and the information in the table is used to authenticate his username and password, and to assign games to his profile. Other tables in the schema refer to this table for player information. Admin utility creates a player, and assigns the player a username and a password.

PlayerToGame

This table lists games assigned to each player based on his grade level.

QuestionBank

This table contains questions available for all grade levels. During runtime the games retrieve questions from this table. Currently this table contains questions as well as their answers, but this may change if we program to generate the questions dynamically.

GameToQuestion

This table stores the mapping between games and their questions, and is retrieved based on the player and grade level.

PlayerLog

All the activity during the game is logged in this table. This information helps to analyze the player's performance at the end of the games. It includes number of attempts made to answer the questions, and if the answer to the question is correct.

GameState

This table stores the state of the game information from where the player exits the game. This makes it easy for the student to return to the game and start playing from where he last quit it.