**Folder: Admin**

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| --- | --- | --- |
| ***Class*** | ***Requires*** | ***Function*** |
| **Questiondetails.php** | Dbutils.php | Get details of questions from the database and display them. This includes displaying possible answers, both correct and incorrect |
| **Questionlist.php** | Dbultils.php | Displays list of questions. It calls questiondetails.php to display data |
| **Remove\_image.php** | Dbutils.php | Deletes an image from the questions\_images database |

**Folder: Classes**

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| --- | --- | --- |
| ***Class*** | ***Requires…*** | ***Function*** |
| **Dbutils.php** | None | Class for setting up databases   |  |  | | --- | --- | | *\_\_construct* | Takes in database username, password, and name arguments. Class constructor to create a new database connection object | | *closeConnection* | Close the mysql connection | | *escapeMySqlString* | Takes special characters arguments. Escapes the pecial characters used in the mySQL statement | | *getDatasetWithParams* | Takes sql select query, data types, and parameters arguments. Creates a dataset based on an SQL Select query and a set of parameters for the WHERE clause. This method only works with SELECT queries | | *getDataset* | Takes a SQL SELECT query argument. Creates a dataset on an SQL SLECT query where the WHERE clause is concatenated | | *executeQuery* | Takes SQL SELECT query, types, and parameters arguments. Executes an INSERT, UPDATE, DELETE query with a set of parameters for the WHERE clause | | *getRecordsetAsJson* | Takes SQL Select query, types, and parameters arguments. Creates a JSON object form data returned by an SQL Select query and a set of parameters for the WHERE clause. This only works with SELECT queries | |
| **HtmlUtilities** | None | Is any of this actually used? |
| **Image.php** | None | Class for image object   |  |  | | --- | --- | | *\_\_construct* | Constructs image object | |
| **Levelsecurity.php** | getaccess.php | Checks to make sure the user isn’t jumping levels |
| **Question.php** | Image.php | Class for question object   |  |  | | --- | --- | | *\_\_construct* | Contructor function for question object. Splits depending whether or not user is in practice mode. | | *logUsedQuestion* | Inserts a question that has been used into used\_question\_log database | | *loadDistractors* | Load distractor images for the questions | | *toJSON* | Converts image List to Json | |  |  | |
| **Quiz.php (actually for Quiz Question)** | None | Class for Quiz Question object   |  |  | | --- | --- | | *\_\_construct* | Takes database username, password, and name arguments. Constructor to create a new database connection object | | *closeConnection()* | Close SQL database connection | | *escapeMYSqlString* | Takes special character arguments. Creates an escape string for the sql database | | *getDatasetWithParams* | Takes SQL Select query, types, and parameters arguments. Creates a dataset based on a select query and a set of paramters for the WHERE clause. This method only works with SELECT queries | | *getDataset* | Take SQL SELECT query parameters. Creates a database on an SQL SELECT query where the WHERE clause is concatenated | | *executeQuery* | Takes SQL SELECT query, types, and parameters arugments. Executes an INSERT< UPDATE< DELETE query with a set of parameters for the WHERE clause | | *getRecordsetAsJson* | Takes SQL SELECT query, types, and parameters arguments. Creates a JSON object form data returned by an SQL SELECT query and a set of paramters for the WHERE clause. This method only works with SELECT queries | |
| **Quizquestion.php** | None | Pretty sure this was abandoned |
| **security.php** | None | Checks if user id in the session is blank or “invalid”. Redirects to authfailed.php |
| **stringutils.php** | None | Replaces certain characters in strings   |  |  | | --- | --- | | *cleanMySqlInsert* | Takes sql String argument, Replaces characters that present potential danger for SQL Injections or can break SQL syntax | |

**Folder: Rest**

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| --- | --- | --- |
| ***Class*** | ***Requires…*** | ***Function*** |
| **getaccess.php** | Dbutils.php | Checks if user ID is set in the session. Set accordingly. Files an SQL SELECT query for everything from page access database where the ID matches the session ID. |
| **getDistractors.php** | Dbutils.php | Gets distractor images for questions.  Selects question ID, diagnosis name, hint, image ID, image folder, and image name  from the distractor and questions databases  where IDs match. Randomizes them, encodes in json, and displays the data. |
| **getPracticeQuestions.php** | Dbutils.php | Retrieves practices questions.  Selects question ID, image ID, category name, diagnosis name, hint, number of images, image folder, and image name.  from categories and questions databases  where IDs match. Loops number of times as the “limit” in the session |
| **getscore.php** | Dbutils.php | Sets the IDs from the session data.  IF the user ID is “TOPFIVE”, retrieves the top five score, encodes them into JSON and displays them.  Otherwise, select the question ID, image ID, if there is a bonus, level ID, attempt ID, score received, date and time started, and date and time ended.  Gets data from score database where IDs match.  Then selects question ID, score date, score time, level ID, and attempt ID.  Gets data from questioncomplete database where IDs match.  Displays score and question data. |
| **getuserlist.php** | Dbutils.php | Gets ID from session.  Select name  from drupal\_users  where ID matches session ID.  Sets database name, username, and password. Creates a new DbUtilities object from previous data, turns it into an array and encodes to Json |
| **Leaderboard\_ws.php** | Dbutils.php | Retrieve the Leader board scores  Selects user ID, level ID, and max level score  From the dentalgame score log  Where level is complete  Group by user and level id  Order by max level score  Limit to 3 queries  Encode to JSON  Select user ID, level ID, and sum of Max Overall score  From dental game score log  Where the level is complete  Group by ID  Order by the max overall score  Limit to 5 results  Encode to Json |
| **levelsummary.php** | Dbutils.php | Displays the level summary, including score and answers  Get the game attempt, level, and user IDs from the session data  Select Max level attempt number  From the score log  Where the user and attempt ID matches  Select the level attempt number, if the level is complete, final level score, number of questions answered, number of questions correct, and number of questions incorrect  From Scorelog  Where attempt, user, and level IDs match  Save as score and encode in JSON  Select question ID, image ID, diagnosis name, image Folder, image Name, and whether it is correct  Fromanswer log, questions\_images, questions, and images databases  Where image, question, attempt, user, and level IDs match  Save as answers  Display scores and answers |
| **Logquizanswer.php** | Dbutils.php | Set user ID, question ID, choice ID, and if item is correct from session data  Insert data above into quizanswerlog database |
| **Question\_ws.php** | Dbutils.php | Gets question and distractor info from databases and display them  If the level ID is set from the session  Select question ID, diagnosis name, hint, image ID, image folder, and image name  From questions and questions\_levels databases  Where IDs match  Randomize  Encode to JSon and save as questions  Select question ID, diagnosis name, forQuestion ID, image ID, image folder, and image name  From distractors and questions databases  Where IDs match  Randomize  Encode to Json and save as distractors  Display questions and distractors   |  |  | | --- | --- | | *Utf8ize* | IF argument is an array, for each item, use recursion to call itself for each string  If string, encode it into utf8 | |
| **Question\_ws\_obj.php** | Dbutils.php  Question.php | Create new question object and encode in JSON. Question object depends on user’s current level  Get game attempt and level IDs from session  Retrieve practice categories if any  Display questions differently depending on level |
| **Quizquestion\_ws.php** | Dbutils.php | Creates a QuizQuestion and QuizQuestionChoice object  Selects question ID question stem, choice Id, choice text, and if item is correct  From quizquestions and quizquestionchoices databases where IDs match and items are active  Order by question ID  Save as collection list  Iterate through collection list and put questions in collection list into new array list called question list  Also construct new questions based on data from sql query |
| **Quizscorecard\_ws.php** | Dbutils.php | Displays user’s scorecard  Select date answered, if correct, and count  From quizanswerlog  Where IDs match  Group by Date answered and if correct  Save as collectionlist, encode in json and display |
| **Resultstojson.php** | Dbutils.php | Convert entire sql database to JSON? (Actually not sure if this works) |
| **Scorecard\_ws.php** | Dbutils.php | Display user’s scorecard (not sure how this differentiates from quizscorecard\_ws.php)  Select level ID, log time and date, level attempt, final level score, number of questions answered, number correct, and number incorrect  From the scorelog  Where user IDs match and the level is complete  Order by log date time descending and level ID ascending  Convert to json and display |
| **Session.php** | None | Set name and value session data and display  (not sure if this is used) |
| **Updateaccess.php** | None | Insert new access data in page access database  Depends if session data is already set |
| **Updateanswerlog.php** | None | Update the answer log database  Retrieve session data and display  Then insert into answer log database with SQL |
| **Updatescore.php** | Dbutils.php | Update the score database  Retrieve session data and display  Then insert into score database with SQL |
| **Updatescorelog.php** | Dbutils.php | Update the scorelog database  Retrieve session data  Insert data into score log database with SQL |

Old Documentation

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| --- | --- |
| Class | What does it do? |
| Security.php | Checks session user ID and fail authentication if needed. Present on most, if not all pages |
| Levelsecurity.php | Checks if user is not jumping levels |
| Getaccess.php | Sets $userID and $attemptID from the $\_SESSION, gets page access with sql, gets dataset |
| Dbutils.php (Not used???) | |  |  | | --- | --- | | \_construct | Constructs a database with password, username, etc.  Standard sql database creation | | Closeconnection() | Close database connection | | EscapeMySqlString | Escape string | | getDatasetWithParams | Gets specific SQL dataset with parameters | | getDataset | Get specific dataset (no parameters) | | executeQuery | Executes an SQL query | | getRecordsetAsJson | Creates JSON object from data returned by an SQL select query | |
| Question.php | |  |  | | --- | --- | | \_\_construct | Sets $attemptID to the passed in variable and creates a new DbUtilities variable | | If not category specified | Pulls questions based on levels and randomly orders them | | If category specified | Indicates practice round, gets questions from specific category | | logUsedQuestion | Indicates where specific questions have been used | | loadDistractors | Picks out wrong answers for the question and randomizes them | | Other functions | Simple sets global variables | |  |  | |  |  | |
| htmlUtilities.php (Not used???) | |  |  | | --- | --- | | selectMultiControlFromDb | Creates a new DbUtilities class, iterates through the items in the dataset and displays them on the HTML page | | selectMultiControlFromNumberList | Same as previous, but parameters are number of questions | | selectControlFromArray | Displays data from a single array | | displaySelectedValList | Lists items from a dateset | | displayMonthSelectList | Displays the month and current time in the HTML page | |
| Image.php | |  |  | | --- | --- | | \_\_contruct | Creates an image class item | | Other functions | Just constructor functions | |
| Quiz.php | |  |  | | --- | --- | | \_\_construct | Creates a new database connection object | | closeConnection | Close database connection | | escapeMySqlString | Creates an escape string | | getDatasetWithParams | Gets a specific sql data set with parameters | | getDataset | Creates a dataset based on an SQL SELECT query where the WHERE clause is concatenated (No Parameters) | | executeQuery | Executes an INSERT, UPDATE, DELETE, query with a set of parameters for the where clause | | getRecordsetAsJson | Creates a JSON object from data returned by an SQL SELECT query and a set of parameters for the WHERE clause | |
| quizQuestion | Just creates a quizquestion object with id and stem variables |
| stringUltilities | |  |  | | --- | --- | | cleanMySqlInsert | Fixes strings for sql inserts, such as double spaces for one space | |
| Questiondetails.php | Gets list of questions from dbUtilities and displays them. Checks which answers are correct and incorrect for each question |
| Questionlist | Displays list of question categories |
| Remove\_image.php | Removes an image from the database |
| Dental.js | |  |  | | --- | --- | | currentDateTime | Gets the current data and time | | updateAccess | Gets data to update user access | | updateAnswerLog | gathers the userId, selectedImageID, and if the question was answered correctly or not and sends all of this information to the updatescore.php file to be input into the database | | updateScoreLog | Updates the score log | | converDAte | Converts a passed in date and converts it to a javascript date object | | finDifference | Records time | | getScoreData | takes in the attempts, userID, and level ID  It proceeds to display the number of correct answers per level and the number of  attempts you have tried.  If the number of correct attempts on any individual level meets a certain amount  designated by that level the user has won that level | | showImagePreview | Allows a user to zoom in on a picture | | setSession | Sets a session for a user | | getFileName | Gets a url from the document | | hidePLay | Hides the play link if user is engaged within a level of the game | | getTopGive | Get top five score for leaderboard | | getQuestion | retrieves a single question from the JSON array returned by the web service  and renders associated information on the screen, including:  1. question text,  2. hint (if there is a hint associated with the question)  3. associated image  4. distractor images  This function also sets properties and functionalities of image select buttons and image  Magnifiers | | highlightCorrectIncorrect | Takes a question parameter and displays if an answer was correct or incorrect | | showHint | Shows hint in html page | | showAnswerConfirm | Displays a jQueryUI modal popup to confirm whether an answer is correct or incorrect | | ShowMessage | Displays a certain message in html | | updateScoreBoard | Updates values displays in the scoreboard | | Shuffle | Shuffles values in an array passed an argument | | updateTimeBonus | Adjusts time score | | getImageFromControlID | a hack to deal with scope and lifecycle of jQuery  objects and event handlers. All objects generated by this function have  the same pattern for IDs - the type of object followed by underscore (\_)  followed by the ID of the image that the object is connected to.  - Image: img\_xxxxxxxxxxxxxxxxxxxxxx  - Magnifying glass: mag\_xxxxxxxxxxxxxxxxxxxxxx  - Select button: sel\_xxxxxxxxxxxxxxxxxxxxxx  In order to get the associated image, we split the ID of linked object  into an array - the second element of that array will always be the image ID | | getSelectedImageData | This function is a hack to deal with scope and lifecycle of jQuery  objects and event handlers.  In order to get the associated image, we split the ID of select button  (HTML button used to select an image) into an array - the second element  of that array will always be the image ID.    This function retuns an image object with all of its associated properties  by matching the button ID to an ID of one of the images displayed on the screen | | getUrlParameter | Gets the url of the page | | countRedirect | loads next question | |
| Dental\_04\_21\_2015.js | I don’t think this is used anymore |
| Dental\_old.js | I don’t think this is used anymore |
| jsonUtils | |  |  | | --- | --- | | getJSON | Retrieves a JSON string returned by a web service located at a specified URL.  Utilizes jQuery to make an Ajax call to a web service or a script that  returns a JSON string | |
| tableBuilder.js | |  |  | | --- | --- | | runQuery | Retrieves a JSON string based on an SQL query.  Utilizes jQuery to rest/resultstojson.php - a PHP script that generates  a JSON string based on an SQL query | | buildResultsTable | Builds a generic HTML table based on a JSON string. | | runUserQuery | Empties target HTML div tag and calls runQuery function | | clearUserQuery | Clears/restarts a query attempt | | getProblemTables | Generates HTML tables based on SQL query results. These tables are 'question'  tables - they display data students need to build a query/report.  Right now the queries are hardcoded - we'll need pull this data from a  database in the long run | | getPuzzleTables | Not finished?  Does not seem to be relevant to pharmacy quiz | |
| Reportutils.py | |  |  | | --- | --- | | pivotFromQuery | Pivots data from query | | spreadsheetFromtQuery | Writes query results to a spreadsheet | |
| sqlUtils.py | |  |  | | --- | --- | | getConnection | Gets an SQL connection | | tableToDictionary | Converts an SQL database to a dictionary | | queryToDataset | Converts an sql query to a dataset | | Query to list | Converts an sql query to a list object | | CleansqlString | Fixes an sql query string | | execMysqlQuery | Executes an sql query | | Record exists | Checks if a record exists in an sql database | |
| stringUtils.py | |  |  | | --- | --- | | stringToDate | Converts a string to a date object | | computeMD5hash | Computs an md5 hash | | yearFromDateString | Gets a year from a date string | | getJsonMapping | Gets the json from a year string | | convertDatetoMySQL | Converts a date to a mysql string | | convertDAteTimetoMySQL | Converts a date time object to an sql date object | | stripNotNumeric | Removes non number characters | | prefixZeroes | Adds a 0 to a prefix | |
| Quiz\_import.py | Takes questions and inserts one correct answer and three incorrect answers into it |
| getDistractors.php | Gets distractor images for a question |
| getPracticeQuestions.php | Retrieves questions for practice mode |
| Getaccess.php | Setts user id and game attempt to the session |
| Getscore.php | Gets top 5 scores or retrieves a score from a userID |
| Getuserlist.php | Gets a list of users and encodes them into json |
| Leaderboard\_ws.php | Displays a leaderboard of the scores |
| Levelsummary.php | Displays a summary of the user’s results on a level |
| Logquizanswer.php | Logs the user’s answer to a question |
| Question\_ws.php | Gets a list of questions from a database |
| Question\_ws\_obj.php | Adjusts questions based on level |
| Quizquestion\_ws.php | Creates quizquestions and question choice obtions and adds them to a list |
| Quizscorecard\_ws.php | Keeps score for user |
| Resultstojson.php | Converts a data array to json |
| Scorecard\_ws.php | Creates a score card containing the number of questions answered, correctly and incorrectly |
| Setsession.php | Sets the name of a user for a session |
| Updateaccess.php | Updates a the acess permissions for a user |
| Updateanswerlog.php | Updates the answer log with a user’s attempt at a level |
| Updatescore.php | Updates a user’s score |
| Updatescorelog.php | Updates a score upon completion of a level |
| Auth.php | Sets up a new DbUtilities object, and sets a session for the user |
| Authfailed.php | Page to show authentication failed |
| Caughtcheating.php | Page to indicate that user was caught cheating |
| Completedlevelsummary.php | Displays the results of the user’s attempt at the level   |  |  | | --- | --- | | setupTimerBar() | Set up an html element to displat time | | updateTimerBar() | Updates the information on the timer bar | |  |  | |
| Game-level-example.php | Displays an example of a level   |  |  | | --- | --- | | updateScoreData | Sets score data object to user’s information | |
| Gameattempt.php | Sets the start of the quiz |
| Header.php | Sets the top of the page |
| Homepage.php | Displays homepage of quiz |
| Leaderboard.php | Displays the leaderboard |
| Level1.php | Sets the first level   |  |  | | --- | --- | | initQuestion | Initializes question | | selectDxImage | Activates when user selects an answer, indicates if it is right or wrong | |
| Level1a.php | Determines if selecte image is correct or not. If it is orrecti, it sends the info to pdate score as true and bring up new question, similar if false   |  |  | | --- | --- | | getScore | Retrieves score | | hintPointDeduction | Deduces points from base score if player used a hint | |
| Level1tutorial.php | Displays tutorial for level 1 |
| Level2.hp | Sets the second level   |  |  | | --- | --- | | initQuestion | Initializes question | | selectDximage | Activates when user selects an answer, indicates if it is right or wrong | | submitLevel2Answers | Checks answer to question and increments questions completed | | processAnswerChoices | Checks number of answers correct | | getNumberAvailableCorrect | Gets number of available questions correct | |
| Level2a.php | Determines if selected image is correct or not. If it is correct, it sends the info to update score as true and bring up new question, similar if false   |  |  | | --- | --- | | getScore | Retrieves score | |
| Level2tutorial.php | Displays tutorial for level2 |
| Level3.php | Sets the third level   |  |  | | --- | --- | | initQuestion() | Initialize questions | | loadLevel3Questions | Sets images and question items | | getImageDataFromSelection | Displays image object | | randomizeSelectableTerms | Randomizes the selectable item choices | | submitLEvel3Answers | Submits all of the answers for the user | |  |  | |
| Level3a.php | |  |  | | --- | --- | | saveSelectedPairs() | Saves the matches to be scored | | selectDiagnosisMAtch | Function to store the diagnosis selection | | SelectImageMatch | Function to store the image selection | | calculateScore | Calculates the user’s score | | getScore | Retrieves score | |
| Level3tutorial.php | Displays tutorial for level 3 |
| Logout.php | Logs out of session |
| Practice.php | Displays practice options |
| practiceQuestion.php | Displays a practice question |
| Practicemenu.php | Displays practice menu |
| Quiz.php | |  |  | | --- | --- | | loadQuestion | Loads a question for level | | submitQuestion | Submits question for answering | | getCorrectQuestionChoice | Displays correct answer | |
| Quizscorecard.php | Displays score card of user |
| Scorecard.php | Sets the score card of the user |
| Tutorial.php | Shows tutorial of the quiz |
| Win.php | Displays win page of quiz |