## Appendix C - Abstract for List of Techniques

## **List of Techniques Used**

- MySQL Databases
- MySQLi Connect
- Bootstrap Stylesheet Library
- Hyperlinks
- Sessions Variables Technology
- Injections Check Functions (MySQL Real Escape String)
- PHP Mail Function
- PHP Conditions (if then)
- PHP Require Statements

- CURL Methods
- PHP Loops
- Form POST method
- Ajax POST method
- PHP MySQL CRUD Application
- HTML 5 DIV & SPAN elements
- PHP MySQL SELECT Query
- PHP Echo and Print Statements

# Summary of the use of techniques used

## **General technology:**

PHP 5 Object-Oriented Programming, usually processed on a web server (Apache) by a PHP interpreter

Apache server and php environment was provided by the web host provider

#### **MySQL Databases**

All game data (users, questions, scores ...) are stored in MySQL database *MySQLi connect:* 

opens a new connection to the MySQL server used in the cnx.php file for all database statements.

### ¡Query library:

The JavaScript framework, to simplify usage of animations and events (Example on form click, on slide change login to register form ...)

## **Bootstrap Stylesheet Library**

Free CSS frontend library used for typography, forms, buttons, navigation

## Sessions Variables Technology

"Used to make data accessible across the various pages of an entire website is to use a PHP Session. A session creates a file in a temporary directory on the server where registered session variables and their values are stored. This data will be available to all pages on the site during that visit (example: login, password, email, scores ...)" (source: 1)

### Awesome fonts library

Free vector library for icon and fonts

#### **CURL Methods**

Calling Text to speech API (sending text value and receiving mp3 file)

### PHP Conditional Statements (if then)

Conditional statements are used to perform different actions based on different rent conditions.

Example: If the password is correct then go to the game If the answer is correct then add +1 to score

### PHP Conditional Loop

Loops through a block of code as long as the specified condition is true <u>Example</u>: write each question and 4 possible answers while the record is found on the database

Based on request: select answers from writing where id question =1

#### Form POST method

Sending data from client side to server side by POST Method For example, this method was used in login form (POST email & password)

#### **AJAX POST method**

Ajax is used for sending post data without reloading or refreshing the page Used for example, in answer submit, the answer is sent to database and score is calculated in the same page no refresh or reload

#### PHP MAIL function:

This function allows you to send emails directly from a script.

Used in the contact form

Data is sent directly from form to email address.

<sup>&</sup>lt;sup>1</sup> "PHP - Sessions." Tutorialspoint. Accessed August 25, 2019. https://www.tutorialspoint.com/php/php\_sessions.htm.

### **CRUD requests:**

Create read update delete MySQL request are used for all database statement

Create: Add a new user

Read: Get user data or get questions

Update: In backend change questions text Delete: In backend delete the specific answer

#### HTML 5 patterns:

Used for forms validation: mandatory field, email format field.

#### PHP includes:

Using for the templating system for calling partials files into pages (calling header and footer in home page)

### HTML code comments:

Adding comment in HTML file, visible but not rendered on the server-side

### CSS files:

Bootstrap.css bootstrap library

Flag-icon.css flags

Font-awesome.min.css awesome fonts library

Linearicons.css form slide CSS

Login.css login form style

Sunset.css sunset UI theme

Sunset folder → UI theme elements (videos, audio- player style ...)