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GitHub Link: https://github.com/unfairavacado/LAMP-online-quiz

LOVELY PROFESSIONAL UNIVERSITY

Project Code:

```php
<head>
<body background="bgimg.jpg">
    <title>Quiz</title>
</head>
<body>
    <form action="react1.php" method="post">
    <h1><span id="time">00:30</span>
<form id="form1" runat="server"></h1>
    <tr>
        <td>

            <?php
                $servername = "localhost";
                $username = "root";
                $password = "0000";
                $dbname = "questions";

                $conn = mysqli_connect($servername, $username, $password, $dbname);
                if(!$conn)
                {
                    die("connection failed:".mysqli_connect_error());
                }

                $query = "SELECT question, optiona, optionb, optionc, optiond, keyoption from question where id=1";
                $result = mysqli_query($conn, $query);

                if (mysqli_num_rows($result) > 0)
                {
                    while($row = mysqli_fetch_assoc($result))
                    {
                        $question=$row["question"];
                        $optiona=$row["optiona"];
                        $optionb=$row["optionb"];
                        $optionc=$row["optionc"];
                        $optiond=$row["optiond"];
                        $keyoption=strtolower($row["keyoption"]);
                    }
                }
                $conn->close();
            ?>

            <h2><?php echo $question ?></h2>
            <input type="option" name = "a" id = "a" value="<?php echo $optiona ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>        <input type="option" name
="b" id = "b" value="<?php echo $optionb ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly >
            <input type="option" name="c" id = "c" value="<?php echo $optionc ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>        <input type="option" name=
"d" id = "d" value="<?php echo $optiond ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>
            <p class="padding"><input type="next" value="Next question" onclick="window.location.href='ques2.php'" readonly></p>
<script>
    var count = 1;
    function dynamic(keyoption)
    {
        count = 1;
      setWrong('a');
      setWrong('b');
      setWrong('c');
      setWrong('d');
      setRight(keyoption);
    }
    function setRight(btn) {
        var property = document.getElementById(btn);
        if (count == 0) {
            property.style.backgroundColor = "#4CAF50";
            count = 1;
        }
        else {
            property.style.backgroundColor = "#054208";
            count = 1;
        }
    }
    function setWrong(btn) {
        var property = document.getElementById(btn);
        if (count == 0) {
            property.style.backgroundColor = "#4CAF50";
            count = 1;
        }
        else {
            property.style.backgroundColor = "#8A0707";
            count = 1;
        }
    }
    function startTimer(duration, display) {
        var timer = duration, minutes, seconds;
        setInterval(function () {
            minutes = parseInt(timer / 60, 10);
            seconds = parseInt(timer % 60, 10);

            minutes = minutes < 10 ? "0" + minutes : minutes;
            seconds = seconds < 10 ? "0" + seconds : seconds;

            display.textContent = minutes + ":" + seconds;

            if (timer-- < 1) {
                window.location = "ques2.php";
                clearInterval(timer);
            }
        }, 1000);
    }

    window.onload = function () {
        var fiveMinutes = 29,
        display = document.querySelector('#time');
        startTimer(fiveMinutes, display);
    };
</script>

        </td>
    </tr>
    </form>
</body>
</div>
    </html>
```

Evaluation 1:

1. **Describe the significance of project**.

Retrieval aids later retention. There is clear evidence from psychological experiments that practicing retrieval of something after learning it, for instance by taking a quiz or test, makes you more likely to retain it for the long term. Testing identifies gaps in knowledge. Testing causes students to learn more from the next study episode. Essentially it reduces forgetting which makes the next related study area more productive. Testing produces better organization of knowledge by helping the brain organize material in clusters to allow better retrieval. Testing improves transfer of knowledge to new contexts. There are several experiments referenced in the paper where tests and quizzes help transfer and application of knowledge. Testing can facilitate retrieval of material that was not tested. Surprisingly there are circumstances where quizzes or tests, particularly if delayed, can help people retrieve/retain information that was related to that asked but not actually asked in the questions. Testing improves metacognitive monitoring – by giving students' scores or self-assessments, they can better predict their knowledge and be more confident about what they know and what they need to know. Testing prevents interference from prior material when learning new material. If you have a test after learning one set of material before learning another set of material, it can make it less likely that the second session will Testing provides feedback to instructors and lets them know what is learned or what is not. Frequent testing encourages students to study. Having frequent quizzes and tests motivates study and reduces procrastination.

2. **Compare the approach used in project with the existing approaches.**

LAMP concepts are used in developing the project. Linux, Apache2, MySQL, PHP. Webpages are developed in HTML and JavaScript. Approach used in the projects is simpler than approaches used in any other projects out there. A clock runs along with the questions alerting users about the time left for them to answer the questions. Every user gets a 5 sec timer to get ready before starting the quiz. User gets one chance to answer every question. Without any complications the user gets to know which the right option is and which isn't as soon as he chooses an option. User has a 30 sec window to answer each question, if user fails to answer the question in the given time it will marked as a wrong answer and quiz moves forward to another question. At the end of the quiz result is declared. User can not only login into the quiz but also can register if he's a first timer. After logging in user has a choice between answering the quiz and adding question into the quiz. Database connectivity is done by mysqli object oriented procedure.

Data used during registration is saved into the database and checked when logging in. Questions entered in add-questions.html are saved into a different database to users. Add questions follows a particular format. A question can be in length from 1-1000, each option ranging from 1-300. The key option should be an alphabet A/B/C/D.

JavaScript is used to let the users know about right and wrong answers. Key option is fetched from the database and passed into a JavaScript function that colors the option box when clicked

upon. JavaScript is used to countdown across the project and when the countdown ends specified page is directed.

User table in users Database

```
Database changed
mysql> select * from user;
+----+--------+----------+
| id | uname  | pass     |
+----+--------+----------+
|  1 | user   | user123  |
|  2 | root   | root     |
| 12 | test   | test     |
| 13 | ash    | ash123   |
| 22 | qwerty | 12345    |
| 23 | alt    | alt      |
| 24 | rahul  | rahul    |
| 26 | lpu    | lpu123   |
| 27 | karan  | karan123 |
+----+--------+----------+
9 rows in set (0.12 sec)

mysql>
```

Question table in Questions Database

```
Database changed
mysql> select * from question;
+----+----------------------------------------------------------------------------+-----------------+--------------------------+------------+
--------------+------------------------+----------+
| id | question                                                                   | optiona         | optionb                  | option
c           | optiond                | keyoption |
+----+----------------------------------------------------------------------------+-----------------+--------------------------+------------+
--------------+------------------------+----------+
|  1 | What is the capital of United States of America?                            | New York        | Washington D.C.          | San Fr
ancisco     | Seattle                | B        |
|  2 | What treaty marked the end of World War I?                                  | Sykes-Picot     | Versailles               | Brest-
Litovsk     | Ghent                  | B        |
|  3 | Where was Archduke Ferdinand assassinated?                                  | Berlin          | London                   | Venice
            | Sarajevo               | D        |
|  4 | Which Player is crowned FIFA Player of the Century by FIFA officals in the year 2000? | Diego Maradona  | Pele Franz               | Becken
bauer       | Alfredo Di Stefano     | B        |
|  5 | The title "King of Basketball" is often associated to which player?         | Micheal Jordan  | Kobe Bryant              | LeBron
James       | Kevin Durant           | C        |
|  6 | Which Player scored maximum number of runs in ICC ODI World Cups?           | Sachin Tendulkar | Ricky Ponting           | Yuvraj
 Singh      | Brian Lara             | A        |
|  7 | What is considered the bloodiest battle of World War I?                     | Tannenberg      | Somme                    | Verdun
            | Gallipoli              | B        |
|  8 | When did America enter World War I?                                         | 1914            | 1916                     | 1917
            | 1915                   | C        |
|  9 | Which Team won the Super Bowl LI?                                           | Atlanta Falcons | New England Patriots     | Miami
Dolphins    | Pittsburgh Steelers    | B        |
| 10 | Which team won the most number of MLB titles?                               | Chicago Cubs    | Boston Red Sox           | Los An
geles Dodgers | New York Yankees      | D        |
+----+----------------------------------------------------------------------------+-----------------+--------------------------+------------+
--------------+------------------------+----------+
10 rows in set (0.70 sec)

mysql>
```

3. Is there any innovative method you have used toward the project?

Validation part of the project is innovative and function which displays the answer in the quiz. Validation is a complicated process. In this project validation process is simpler and easier. Anybody can register to play quiz. Validation is done when username and password matches from the databases and in every other case it prompts that **username or password is wrong.** Answer verification in the quiz is also done using an innovative approach so no one can answer by inspecting the code of the page. JavaScript is used in coding. The code initially says the validity of each option is wrong and finally only lets the correct option know that its right from the key option fetched from the database. POST method is used in inserting questions into question table or users into user table, this makes intercepting the traffic harder.

Evaluation 2:
Brief Answers in relevance to the project codes

1. **Will different sections of your site require different designs, layouts or coloring?**
   Description: Section requires different designs, layouts, and coloring. Internal CSS code adds color and design to the page. There are 5 important layout in the project.

   Internal CSS

```css
<style>
body {
    font-family: Verdana, Arial, sans-serif;
    font-size: smaller;
    padding: 50px;
    color: #be7429;
}
input[type=text], select {
    width: 100%;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}

input[type=submit] {
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}
input[type=button] {
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}
input[type=button]:hover {
    background-color: #45a049;
}
input[type=submit]:hover {
    background-color: #45a049;
}

div {
    border-radius: 5px;
    background-color: #f2f2f2;
    padding: 40px;
}
</style>
```

Login.php – Login.php has the option for the user to login into the quiz section or to register to become a user.

Register.php – Register.php is the webpage which lets the user register to access the quiz using a valid username and password.

Main.html – main.html has the option for either answer the quiz or donate questions to the quiz. Each option redirects you to a particular page. Quiz option gives you a 5 sec timer and starts the quiz.
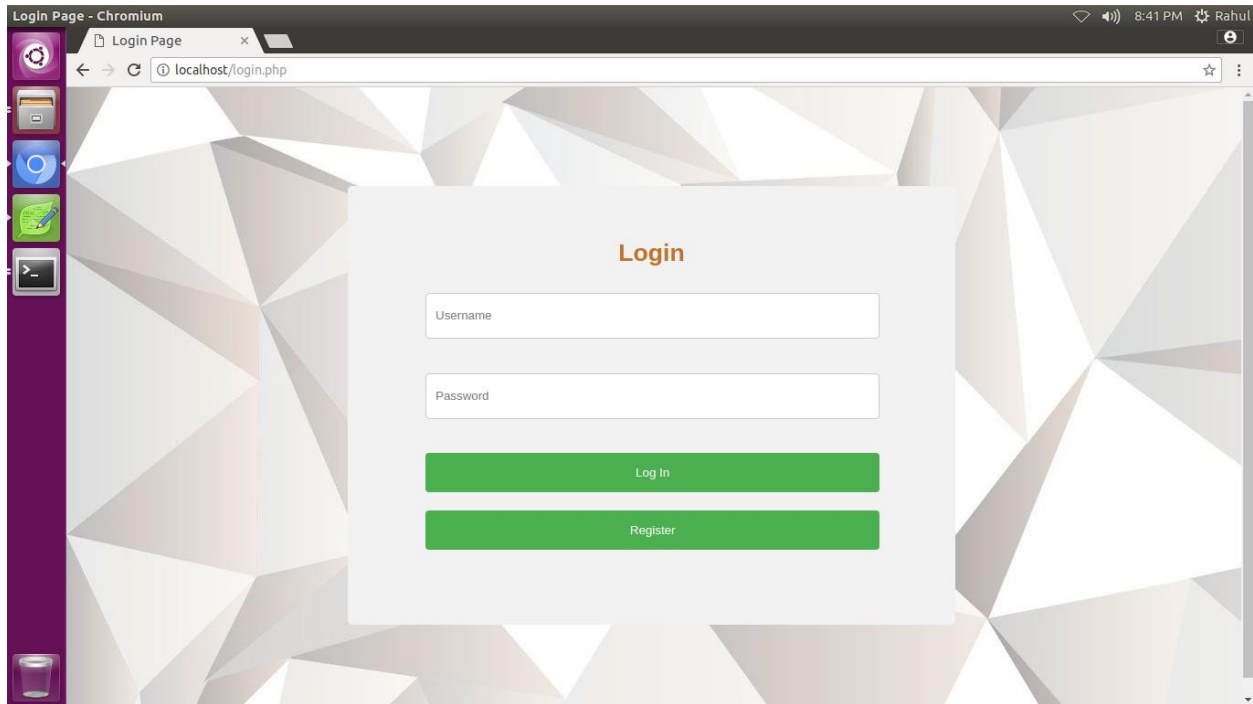
Add-questions.html – This page helps users to add questions to the database and these questions will be used in the further quizzes.

Ques.php – Ques.php fetches questions, options and result key from the database and displays them on the page one by one and displays right answer when any option is selected.
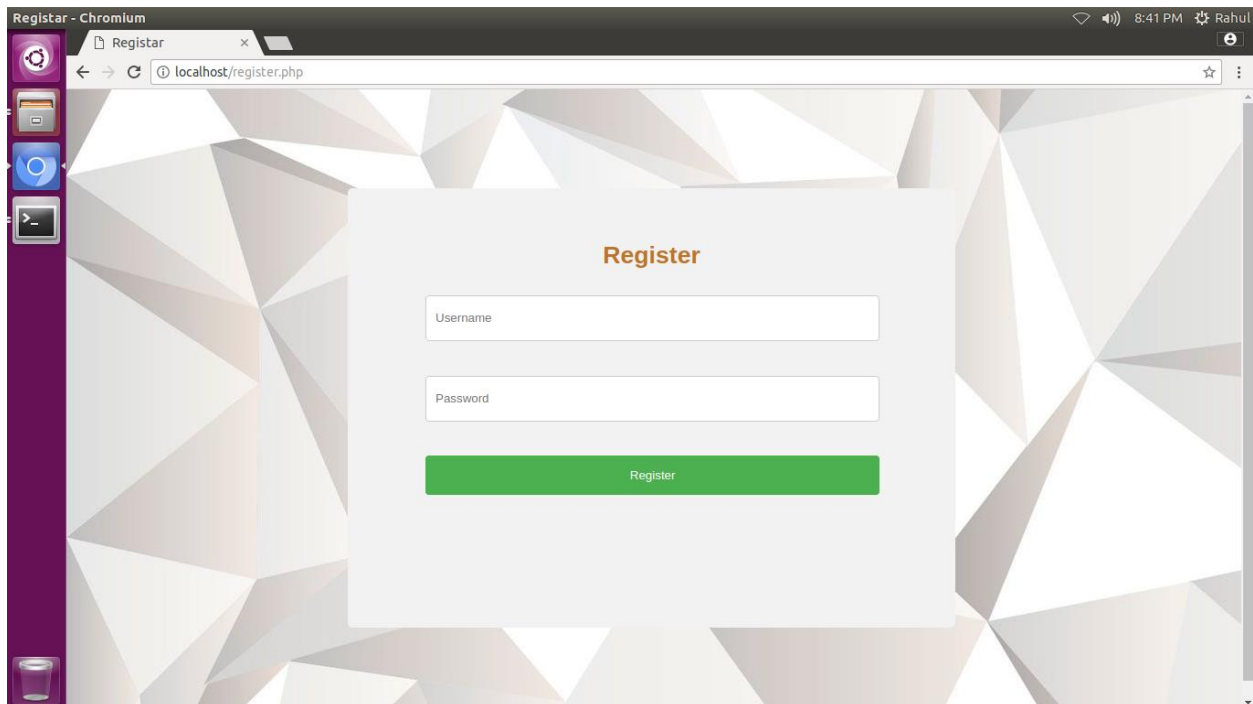
2. **What kind of layout you employed in project?**
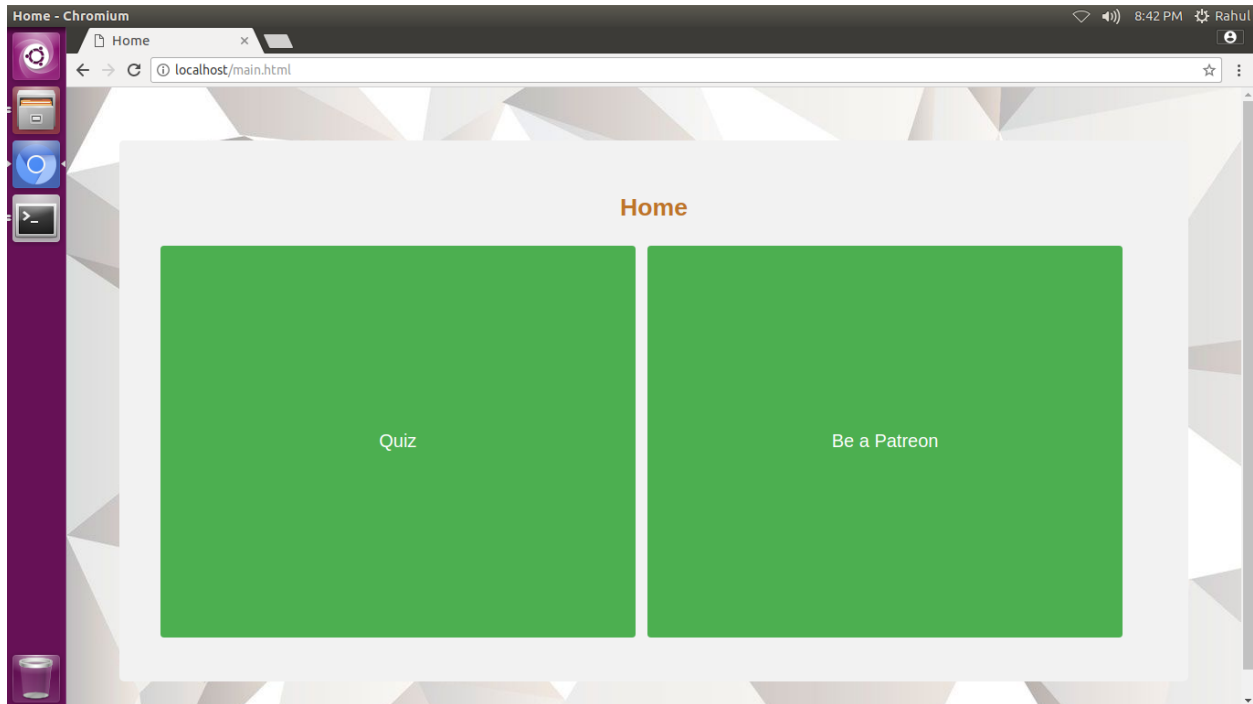   **Description of the layout:**

Login.html - Login.php has the option for the user to login into the quiz section or to register to become a user.
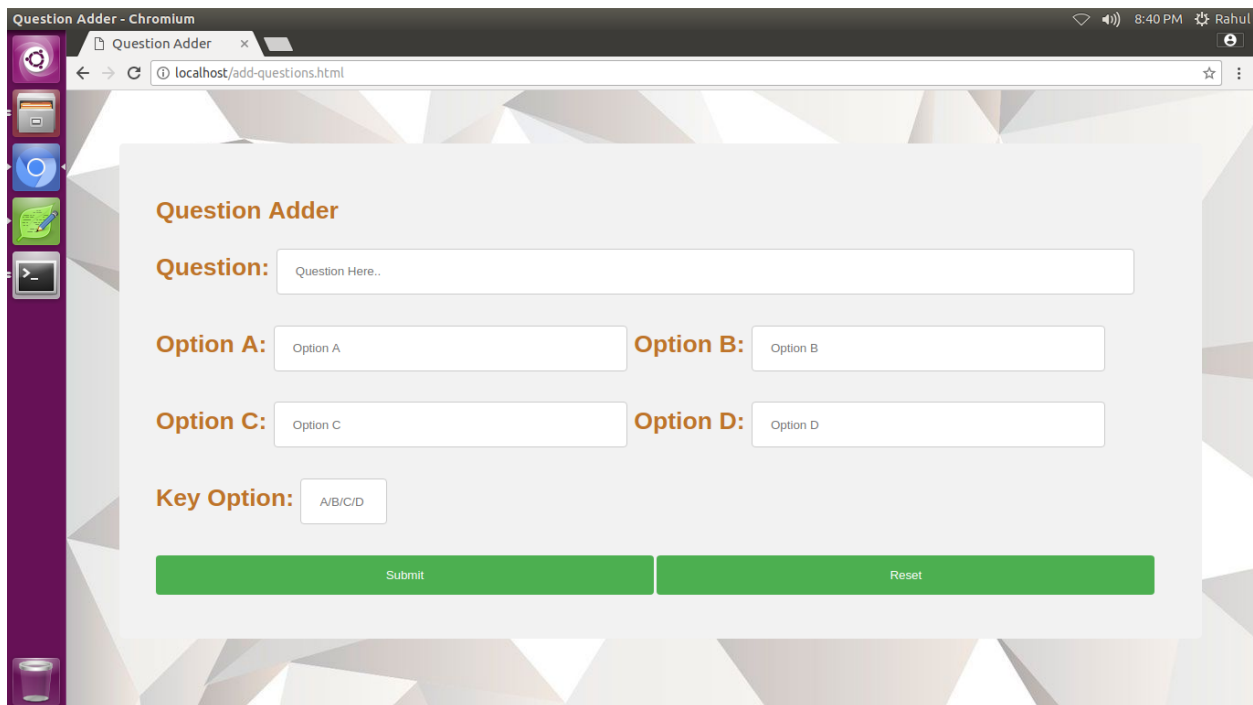

Register.php – Register.php is the webpage which lets the user register to access the quiz using a valid username and password.
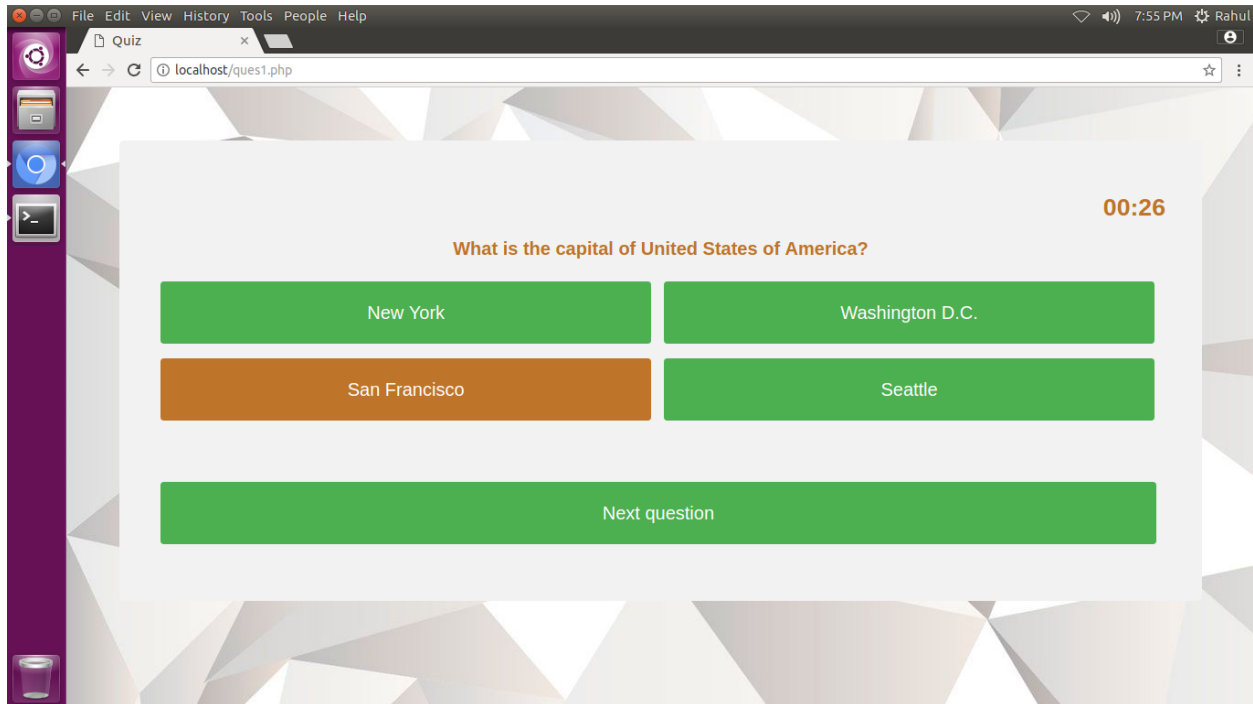
Main.html – main.html has the option for either answer the quiz or donate questions to the quiz. Each option redirects you to a particular page. Quiz option gives you a 5 sec timer and starts the quiz.

Add-questions.html – This page helps users to add questions to the database and these questions will be used in the further quizzes.

Ques.php – Ques.php fetches questions, options and result key from the database and displays them on the page one by one and displays right answer when any option is selected.

Code snippet for the layout:

Login.php –

```php
                  <?php
$uname=$_POST['uname'];
$pass=$_POST['pass'];
        if(!empty($uname)&&!empty($pass)){
                $servername = "localhost";
                $username = "root";
                $password = "0000";
                $dbname = "users";

                $conn = mysqli_connect($servername, $username, $password, $dbname);
                if(!$conn)
                {
                    die("connection failed:".mysqli_connect_error());
                }

                $query = "SELECT uname, pass from user";
                $result = mysqli_query($conn, $query);

                if (mysqli_num_rows($result) > 0)
                {
                    while($row = mysqli_fetch_assoc($result))
                        {
                            $usern=$row["uname"];
                            $passw=$row["pass"];
                            if($uname===$usern && $pass===$passw)
                            {
        $conn->close();
                                header("Location: main.html");
                            }
                        }
                }

                $msg="Wrong Username or Password";

                $conn->close();
        }
            ?>


        <h1><input type="text" name="uname" placeholder="Username" value="" style="height: 50px; width:85%;"></h1>
        <h1><input type="password" name="pass" placeholder="Password" value="" style="height: 50px; width:85%;"></h1>
        <center><?php echo("$msg") ?></center>
    <input type="submit" value="Log In" style="width: 85%" readonly>
            <input type="button" value="Register" style="width: 85%" onclick="window.location.href='register.php'" readonly>
```

Register.php-

```html
41    <head>
42    <body background="bgimg.jpg">
43        <title>Registar</title>
44    </head>
45    <body>
46        <form action="registeraction.php" method="post">
47        <h1><center>Registar<center></h1>
48        <tr>
49            <td>
50
51                        <h1><input type="text" name="uname" placeholder="Username" value="" style="height: 50px; width:85%;"></h1>
52                        <h1><input type="text" name="pass" placeholder="Password" value="" style="height: 50px; width:85%;"></h1>
53                        <input type="submit" value="Register" style="width: 85%" >
54
55
56
57            </td>
58        </tr>
59    </form>
60    </body>
```

Add-questions.html –

```html
54    <head>
55    <body background="bgimg.jpg">
56        <title>Question Adder</title>
57    </head>
58    <body>
59        <form action="action.php" method="post">
60        <h1>Question Adder</h1>
61        <tr>
62            <td>
63
64                        <h1>Question: <input type="text" name="question" placeholder="Question Here.." value="" style="height: 50px; width:85%;"></h1>
65                        <h1>Option A: <input type="text" name="optiona" placeholder="Option A" value="" style="height: 50px; width:387px;"></h1>
66                        Option B: <input type="text" name="optionb" placeholder="Option B" value="" style="height: 50px; width:387px;"></h1>
67                        <h1>Option C: <input type="text" name="optionc" placeholder="Option C" value="" style="height: 50px; width:387px;"></h1>
68                        Option D: <input type="text" name="optiond" placeholder="Option D" value="" style="height: 50px; width:387px;"></h1>
69                        <h1>Key Option: <input type="text" name="keyoption" placeholder="A/B/C/D" value="" maxlength="1" size="1" style="height: 50px; width:95px;text-transform:uppercase;"></
                            h1>
70                        <input type="submit" value="Submit" style="width: 49.3%";>                        <input type="reset" style="width: 49.3%">
71
72
73            </td>
74        </tr>
75    </form>
76    </body>
77    </div>
78        </html>
```

Registaraction.php –

```php
50    <?php
51    $uname=$_POST['uname'];
52    $pass=$_POST['pass'];
53        if(empty($uname)||empty($pass))
54        {
55        $msg="Enter Username or Password";
56        }
57        else
58        {
59        $servername = "localhost";
60        $username = "root";
61        $password = "0000";
62        $dbname = "users";
63
64        $conn = new mysqli($servername, $username, $password, $dbname);
65        if($conn->connect_error)
66        {
67        die("connection failed:".$conn->connect_error);
68        }
69        $sql = "INSERT INTO user (uname, pass) VALUES ('$uname', '$pass')";
70        if ($conn->query($sql) === TRUE)
71            {
72                $msg="User successfully registered.";
73            }
74        else
75            {
76                $msg="Error in registering user: " . $sql . "<br>" . $conn->error;
77            }
78        }
79
80    $conn->close();
81
82    ?>
83
84
85            <h1><center><?php echo("$msg") ?></center></h1>
86    <br></br>
87    <br></br>
88    <br></br>
89    <br></br>
90    <br></br>
91    <br></br>
92    <br></br>
93    <br></br>
94            <input type="submit" value="Login Now" onclick="window.location.href='register.php'" style="width: 85%" >
```

Action.php -

```php
                Question:<?php $question=$_POST['question']; echo $question;?></br>
                Option A:<?php $optiona=$_POST['optiona']; echo $optiona;?></br>
                Option B:<?php $optionb=$_POST['optionb']; echo $optionb;?></br>
                Option C:<?php $optionc=$_POST['optionc']; echo $optionc;?></br>
                Option D:<?php $optiond=$_POST['optiond']; echo $optiond;?></br>
                Key Option:<?php $keyoption=$_POST['keyoption']; echo $keyoption;?></br>

            <?php
$servername = "localhost";
$username = "root";
$password = "0000";
$dbname = "questions";

$conn = new mysqli($servername, $username, $password, $dbname);

if($conn->connect_error)
{
die("connection failed:".$conn->connect_error);
}
$sql = "INSERT INTO question (question, optiona, optionb, optionc, optiond, keyoption)
VALUES ('$question', '$optiona', '$optionb','$optionc','$optiond','$keyoption')";

if ($conn->query($sql) === TRUE) {
    echo "Your response has been recorded successfully.";
} else {
    echo "Error in recording response: " . $sql . "<br>" . $conn->error;
}

$conn->close();

?>



                <input type="submit" value="Add another" style="width: 99%">
            <input type="button" value="Home" onclick="window.location.href='main.html'" style="width: 99%">
```

Ques.php –

```php
                    <?php
                    $servername = "localhost";
                    $username = "root";
                    $password = "0000";
                    $dbname = "questions";

                    $conn = mysqli_connect($servername, $username, $password, $dbname);
                    if(!$conn)
                    {
                        die("connection failed:".mysqli_connect_error());
                    }

                    $query = "SELECT question, optiona, optionb, optionc, optiond, keyoption from question where id=1";
                    $result = mysqli_query($conn, $query);

                    if (mysqli_num_rows($result) > 0)
                    {
                        while($row = mysqli_fetch_assoc($result))
                            {
                                $question=$row["question"];
                                $optiona=$row["optiona"];
                                $optionb=$row["optionb"];
                                $optionc=$row["optionc"];
                                $optiond=$row["optiond"];
                                $keyoption=strtolower($row["keyoption"]);
                            }
                    }
                    $conn->close();
                    ?>


                <h2><?php echo $question ?></h2>
                <input type="option" name = "a" id = "a" value="<?php echo $optiona ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>          <input type="option" name
                ="b" id = "b" value="<?php echo $optionb ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly >
                <input type="option" name="c" id = "c" value="<?php echo $optionc ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>          <input type="option" name=
                "d" id = "d" value="<?php echo $optiond ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>
                <p class="padding"><input type="next" value="Next question" onclick="window.location.href='ques2.php'" readonly></p>
<script>
    var count = 1;
    function dynamic(keyoption)
        {
        count = 1;
       setwrong('a');
       setwrong('b');
       setwrong('c');
       setwrong('d');
       setRight(keyoption);
        }
    function setRight(btn) {
        var property = document.getElementById(btn);
        if (count == 0) {
            property.style.backgroundColor = "#4CAF50"
            count = 1;
        }
        else {
            property.style.backgroundColor = "#054208"
            count = 1;
        }
    }
    function setwrong(btn) {
        var property = document.getElementById(btn);
        if (count == 0) {
            property.style.backgroundColor = "#4CAF50"
            count = 1;
        }
        else {
            property.style.backgroundColor = "#8A0707"
            count = 1;
        }
    }
    function startTimer(duration, display) {
        var timer = duration, minutes, seconds;
        setInterval(function () {
            minutes = parseInt(timer / 60, 10);
            seconds = parseInt(timer % 60, 10);

            minutes = minutes < 10 ? "0" + minutes : minutes;
            seconds = seconds < 10 ? "0" + seconds : seconds;

            display.textContent = minutes + ":" + seconds;

            if (timer-- < 1) {
                window.location = "ques2.php";
                clearInterval(timer);
            }
        }, 1000);
    }

    window.onload = function () {
        var fiveMinutes = 29,
            display = document.querySelector('#time');
        startTimer(fiveMinutes, display);
    };
</script>
```

4. Whether sub-queries are used using joins, having clause, group by, order, count, sort etc.?

Description (purpose of use): none

SQL Query: none

5 .How data is fetched from the database?
Code snippet for database connectivity:

```php
<?php
$servername = "localhost";
$username = "root";
$password = "0000";
$dbname = "questions";

$conn = mysqli_connect($servername, $username, $password, $dbname);
if(!$conn)
{
    die("connection failed:".mysqli_connect_error());
}

$query = "SELECT question, optiona, optionb, optionc, optiond, keyoption from question where id=1";
$result = mysqli_query($conn, $query);

if (mysqli_num_rows($result) > 0)
{
    while($row = mysqli_fetch_assoc($result))
    {
        $question=$row["question"];
        $optiona=$row["optiona"];
        $optionb=$row["optionb"];
        $optionc=$row["optionc"];
        $optiond=$row["optiond"];
        $keyoption=strtolower($row["keyoption"]);
    }
}
$conn->close();
?>

<h2><?php echo $question ?></h2>
<input type="option" name = "a" id = "a" value="<?php echo $optiona ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>          <input type="option" name
="b" id = "b" value="<?php echo $optionb ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly >
<input type="option" name="c" id = "c" value="<?php echo $optionc ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>          <input type="option" name=
"d" id = "d" value="<?php echo $optiond ?>" onclick="dynamic('<?php echo $keyoption; ?>')"; readonly>
<p class="padding"><input type="next" value="Next question" onclick="window.location.href='ques2.php'" readonly></p>
```

6. What are the different kinds of explicit validations applied in the project?

Code snippet for the applied validation

```php
<?php
$uname=$_POST['uname'];
$pass=$_POST['pass'];
if(!empty($uname)&&!empty($pass)){
    $servername = "localhost";
    $username = "root";
    $password = "0000";
    $dbname = "users";

    $conn = mysqli_connect($servername, $username, $password, $dbname);
    if(!$conn)
    {
        die("connection failed:".mysqli_connect_error());
    }

    $query = "SELECT uname, pass from user";
    $result = mysqli_query($conn, $query);

    if (mysqli_num_rows($result) > 0)
    {
        while($row = mysqli_fetch_assoc($result))
        {
            $usern=$row["uname"];
            $passw=$row["pass"];
            if($uname===$usern && $pass===$passw)
            {
$conn->close();
                header("Location: main.html");
            }
        }
    }

    $msg="Wrong Username or Password";

    $conn->close();
}
?>
```

7. What kind of security technique is employed in the project?
Code snippet

```
AuthName "Member's Area Name"
AuthUserFile /path/to/password/file/.htpasswd
AuthType Basic
require valid-user
```

8. Does the content suffice the purpose of website in terms of functional requirements?
   Description: Yes, the content suffices for the purpose of website in terms of functional requirements. The questions are available and new questions can be added anytime

without the need to open and command lines and entering arguments for data insertion into database.

9. **Have you optimized query for quick retrieval of data from the database?**
Description: Query is optimized for maximum optimality.
SQL Query:

```
$query = "SELECT question, optiona, optionb, optionc, optiond, keyoption from question where id=1";
```

10. **Have you employed any php function for the modularization of web pages?**
Description: php functions to retrieve and enter data into database are used for the modularization of the webpage.

Code snippet of the function:

Retrieval

```php
<?php
$servername = "localhost";
$username = "root";
$password = "0000";
$dbname = "questions";

$conn = mysqli_connect($servername, $username, $password, $dbname);
if(!$conn)
{
    die("connection failed:".mysqli_connect_error());
}

$query = "SELECT question, optiona, optionb, optionc, optiond, keyoption from question where id=1";
$result = mysqli_query($conn, $query);

if (mysqli_num_rows($result) > 0)
{
    while($row = mysqli_fetch_assoc($result))
    {
        $question=$row["question"];
        $optiona=$row["optiona"];
        $optionb=$row["optionb"];
        $optionc=$row["optionc"];
        $optiond=$row["optiond"];
        $keyoption=strtolower($row["keyoption"]);
    }
}
$conn->close();
?>
```

Insertion

```php
<?php
$servername = "localhost";
$username = "root";
$password = "0000";
$dbname = "questions";

$conn = new mysqli($servername, $username, $password, $dbname);

if($conn->connect_error)
{
die("connection failed:".$conn->connect_error);
}
$sql = "INSERT INTO question (question, optiona, optionb, optionc, optiond, keyoption)
VALUES ('$question', '$optiona', '$optionb','$optionc','$optiond','$keyoption')";

if ($conn->query($sql) === TRUE) {
    echo "Your response has been recorded successfully.";
} else {
    echo "Error in recording response: " . $sql . "<br>" . $conn->error;
}

$conn->close();
?>
```

11. **Have you used GitHub repository to maintain different revisions of the project?**
Description: Many different versions of projects have been revised on GitHub and have been tested for maximum functionality and user ease.
GitHub Link: https://github.com/unfairavacado/LAMP-online-quiz