

DBMS PROJECT REPORT

TITLE: LANGUAGE LEARNING WEBSITE

TEAM MEMBERS:

NAME: Nasam Saimani

SRN: PES2UG21CS322

NAME: Mahimaa C S

SRN: PES1UG21CS316

SEC: 5F

ABSTRACT

The project focuses on the development of a dynamic language learning website, accommodating users, administrators, and diverse language modules. Users can create profiles, explore language lessons, and engage in quizzes to evaluate their language proficiency. Meanwhile, administrators have the capability to manage user accounts and oversee content.

The website emphasizes a user-centric approach with a clean and intuitive interface, promoting an enjoyable learning experience. Language modules offer structured lessons , while quizzes are strategically integrated to reinforce learning and assess user progress.

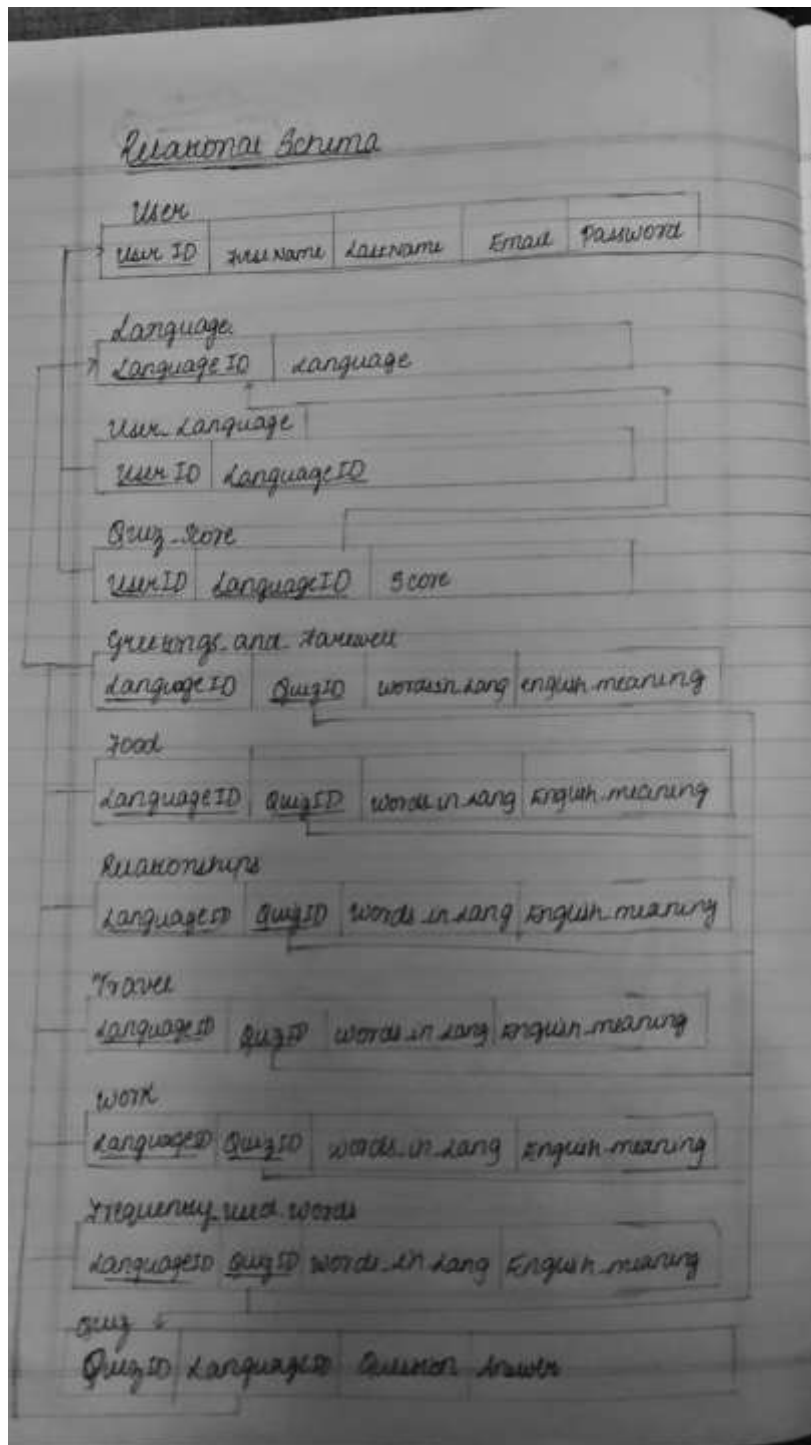
Key features include user profiles, personalized dashboards displaying progress metrics, and an adaptive design for accessibility across devices.

Ultimately, this language learning website seeks to provide an interactive and accessible platform, fostering a global community of language learners and enthusiasts. It aims to contribute to the evolving landscape of online education by combining functionality, engagement, and ease of use.

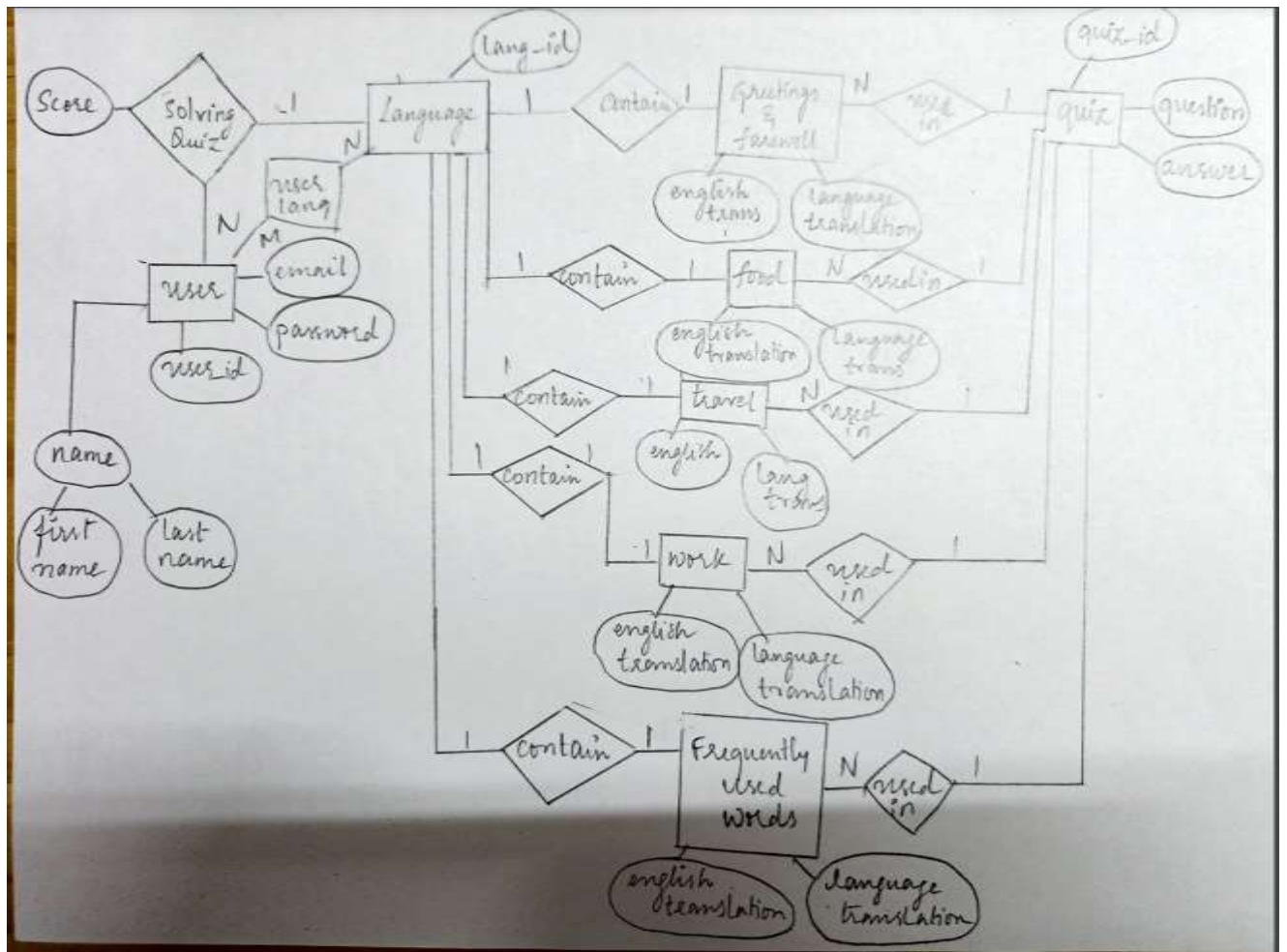
Software/Tools/Programming Languages:

PHP,MYSQL,XAMPP

ER DIAGRAM:



RELATIONAL SCHEMA:



DDL SQL commands:

```
CREATE TABLE user (  
    `userid` VARCHAR(6) CHARACTER SET utf8,  
    `firstname` VARCHAR(8) CHARACTER SET utf8 NOT NULL,  
    `lastname` VARCHAR(9) CHARACTER SET utf8,  
    `email` VARCHAR(18) CHARACTER SET utf8 NOT NULL,  
    `password` VARCHAR(18) CHARACTER SET utf8 NOT NULL,  
    PRIMARY KEY (`userid`)  
);
```

```
CREATE TABLE language (  
    `language_id` VARCHAR(6) CHARACTER SET utf8,  
    `language` VARCHAR(7) CHARACTER SET utf8,  
    PRIMARY KEY (`language_id`)  
);
```

```
CREATE TABLE user_lang (  
    `userid` VARCHAR(6) CHARACTER SET utf8,  
    `language_id` VARCHAR(6) CHARACTER SET utf8,  
    PRIMARY KEY (`userid`, `language_id`),  
    FOREIGN KEY (`userid`) REFERENCES `user`(`userid`) ON DELETE CASCADE,  
    FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE  
);
```

```
CREATE TABLE quiz (  
    `quiz_id` VARCHAR(5) CHARACTER SET utf8,  
    `language_id` VARCHAR(6) CHARACTER SET utf8,  
    `question` VARCHAR(55) CHARACTER SET utf8,  
    `answer` VARCHAR(22) CHARACTER SET utf8,
```

```
PRIMARY KEY (`quiz_id`, `language_id`),  
FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE  
);
```

```
CREATE TABLE quiz_score (  
  `userid` VARCHAR(6) CHARACTER SET utf8,  
  `language_id` VARCHAR(6) CHARACTER SET utf8,  
  `score` INT,  
  PRIMARY KEY (`userid`, `language_id`),  
  FOREIGN KEY (`userid`) REFERENCES `user`(`userid`) ON DELETE CASCADE,  
  FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE  
);
```

```
CREATE TABLE greetings_and_farewell (  
  `language_id` VARCHAR(6) CHARACTER SET utf8,  
  `quiz_id` VARCHAR(5) CHARACTER SET utf8,  
  `words_in_language` VARCHAR(12) CHARACTER SET utf8,  
  `english_meaning` VARCHAR(6) CHARACTER SET utf8,  
  PRIMARY KEY (`language_id`, `quiz_id`),  
  FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE  
);
```

```
CREATE TABLE food (  
  `quiz_id` VARCHAR(5) CHARACTER SET utf8,  
  `language_id` VARCHAR(6) CHARACTER SET utf8,  
  `words_in_language` VARCHAR(12) CHARACTER SET utf8,  
  `english_meaning` VARCHAR(6) CHARACTER SET utf8,  
  PRIMARY KEY (`quiz_id`, `language_id`),  
  FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE
```

);

CREATE TABLE relationships (

 `quiz_id` VARCHAR(5) CHARACTER SET utf8,

 `language_id` VARCHAR(6) CHARACTER SET utf8,

 `words_in_language` VARCHAR(8) CHARACTER SET utf8,

 `english_meaning` VARCHAR(8) CHARACTER SET utf8,

 PRIMARY KEY (`quiz_id`, `language_id`),

 FOREIGN KEY (`language_id`) REFERENCES `language` (`language_id`) ON DELETE CASCADE

);

CREATE TABLE travel (

 `quiz_id` VARCHAR(5) CHARACTER SET utf8,

 `language_id` VARCHAR(6) CHARACTER SET utf8,

 `words_in_language` VARCHAR(8) CHARACTER SET utf8,

 `english_meaning` VARCHAR(8) CHARACTER SET utf8,

 PRIMARY KEY (`quiz_id`, `language_id`),

 FOREIGN KEY (`language_id`) REFERENCES `language` (`language_id`) ON DELETE CASCADE

);

CREATE TABLE work (

 `quiz_id` VARCHAR(5) CHARACTER SET utf8,

 `language_id` VARCHAR(6) CHARACTER SET utf8,

 `words_in_language` VARCHAR(8) CHARACTER SET utf8,

 `english_meaning` VARCHAR(8) CHARACTER SET utf8,

 PRIMARY KEY (`quiz_id`, `language_id`),

 FOREIGN KEY (`language_id`) REFERENCES `language` (`language_id`) ON DELETE CASCADE

);

```
CREATE TABLE frequently_used_words (
    `quiz_id` VARCHAR(5) CHARACTER SET utf8,
    `language_id` VARCHAR(6) CHARACTER SET utf8,
    `words_in_language` VARCHAR(26) CHARACTER SET utf8,
    `english_meaning` VARCHAR(21) CHARACTER SET utf8,
    PRIMARY KEY (`quiz_id`, `language_id`),
    FOREIGN KEY (`language_id`) REFERENCES `language`(`language_id`) ON DELETE CASCADE
);
```

CRUD OPERATIONS:

```
$getUserIDQuery = "SELECT userid FROM user WHERE email = '$email'";
```

```
$checkLanguageQuery = "SELECT * FROM user_lang WHERE userid = '$userID' AND language_id = '$selectedLanguageID'";
```

Insert:

Insert User information

```
$sql = "INSERT INTO User (userid, firstname, lastname, email, password) VALUES ('$userID', '$firstName', '$lastName', '$email', '$password')";
```

Insert Language:

```
$sql = "INSERT INTO language (language_id, language) VALUES ('$languageID', '$language')";
```

Inserting Food values:

```
$sql = "INSERT INTO food (quiz_id, language_id, words_in_language, english_meaning)
VALUES ('$quizID', '$languageID', '$wordsInLang', '$englishMeaning')";
```

Inserting Frequently used words:

```
$sql = "INSERT INTO frequently_used_words (quiz_id, language_id, words_in_language, english_meaning)
VALUES ('$quizID', '$languageID', '$wordsInLang', '$englishMeaning')";
```

Inserting Greetings and Farewell:

```
$sql = "INSERT INTO greetings_and_farewell (language_id, quiz_id, words_in_language, english_meaning)
VALUES ('$languageID', '$quizID', '$wordsInLang', '$englishMeaning')";
```

Inserting Travel :

```
$sql = "INSERT INTO travel (quiz_id, language_id, words_in_language, english_meaning)
VALUES ('$quizID', '$languageID', '$wordsInLang', '$englishMeaning')";
```


Inserting Quiz values:

```
$sql = "INSERT INTO Quiz (quiz_id, language_id , question, answer) VALUES ('$QuizID','$languageID', '$question', '$answer')";
```

Inserting Quiz Score:

```
$sql = "INSERT INTO Quiz_Score (userid, language_id, score) VALUES ('$userID', '$languageID', $score)";
```

UPDATE:

```
$sql = "UPDATE User SET FirstName = '$newFirstName', LastName = '$newLastName', Email = '$newEmail', Password = '$newPassword' WHERE UserID = '$userIDToUpdate'";
```

```
$sql = "UPDATE food
SET language_id = '$newLanguageID', words_in_language = '$newWordsInLang', english_meaning = '$newEnglishMeaning'
WHERE quiz_id = '$quizIDToUpdate'";
```

```
$sql = "UPDATE frequently_used_words
SET language_id = '$newLanguageID', words_in_language = '$newWordsInLang', english_meaning = '$newEnglishMeaning'
WHERE quiz_id = '$quizIDToUpdate'";
```

```
$sql = "UPDATE greetings_and_farewell
SET language_id = '$newLanguageID', words_in_language = '$newWordsInLang', english_meaning = '$newEnglishMeaning'
WHERE quiz_id = '$quizIDToUpdate'";
```

```
$sql = "UPDATE language SET language = '$newLanguage' WHERE language_id = '$languageIDToUpdate'";
```

```
$sql = "UPDATE Quiz SET language_id = '$newLanguageID', question = '$newQuestion', answer = '$newAnswer' WHERE quiz_id = '$quizIDToUpdate'";
```

```
$sql = "UPDATE Quiz_Score SET score = $newScore WHERE userid = '$userIDToUpdate' AND language_id = '$languageIDToUpdate'";
```

```
$sql = "UPDATE travel
SET language_id = '$newLanguageID', words_in_language = '$newWordsInLang', english_meaning = '$newEnglishMeaning'
WHERE quiz_id = '$quizIDToUpdate'";
```

SELECT:

```
$getUserIDQuery = "SELECT userid FROM user WHERE email = '$email'";
```

```
$checkLanguageQuery = "SELECT * FROM user_lang WHERE userid = '$userID' AND language_id = '$selectedLanguageID'";
```

```
$foodQuery = "SELECT * FROM food WHERE language_id = '$userLanguageID'";
```

```
$frequentlyUsedWordsQuery = "SELECT * FROM frequently_used_words WHERE language_id = '$userLanguageID'";
```

```
$userInfoQuery = "SELECT * FROM user WHERE email = '$email'";
```

```
$greetingsQuery = "SELECT * FROM greetings_and_farewell WHERE language_id = '$userLanguageID'";
```

```
$sql = "SELECT userid, email FROM User WHERE email='$email' AND password='$password'";
```

```
$quizQuery = "SELECT answer FROM quiz WHERE quiz_id = '$questionID' AND language_id = '$userLanguage'";
```

```
$quizQuery = "SELECT * FROM quiz WHERE language_id = '$userLanguage'";
```

```
$travelQuery = "SELECT * FROM travel WHERE language_id = '$userLanguageID'";
```

DELETE:

```
$sql = "DELETE FROM User WHERE UserID = '$userIDToDelete'";
```

```
$sql = "DELETE FROM food WHERE quiz_id = '$quizIDToDelete'";
```

```
$sql = "DELETE FROM frequently_used_words WHERE quiz_id = '$quizIDToDelete'";
```

```
$sql = "DELETE FROM greetings_and_farewell WHERE quiz_id = '$quizIDToDelete'";
```

```
$sql = "DELETE FROM Quiz WHERE quiz_id = '$quizIDToDelete'";
```

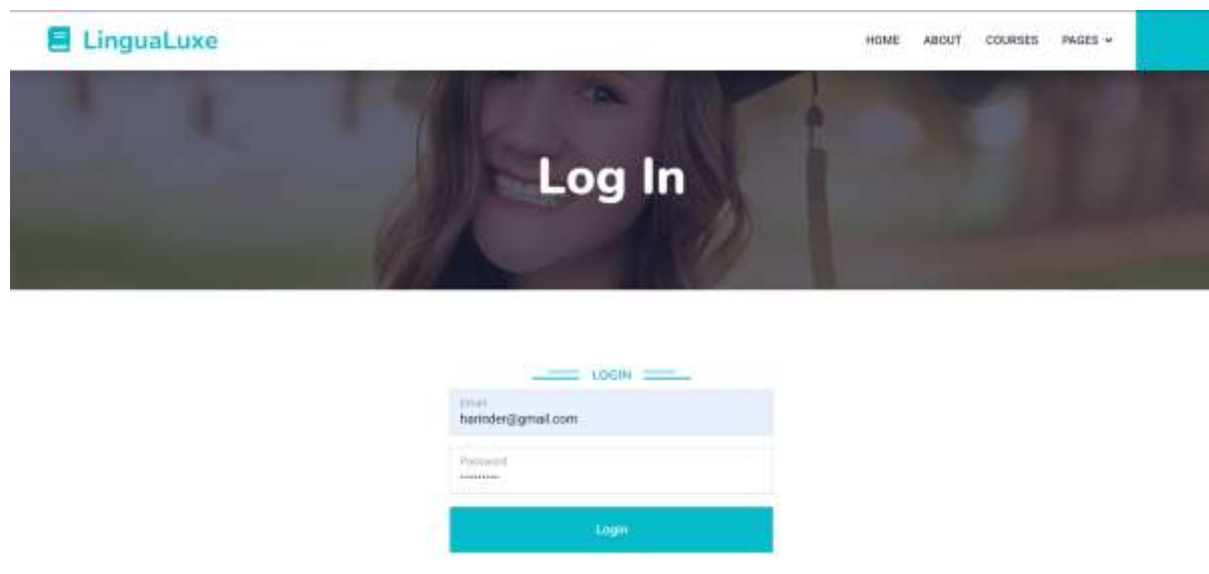
```
$sql = "DELETE FROM language WHERE language_id = '$languageIDToDelete'";
```

```
$sql = "DELETE FROM Quiz_Score WHERE userid = '$userIDToDelete' AND language_id = '$languageIDToDelete'";
```

```
$sql = "DELETE FROM travel WHERE quiz_id = '$quizIDToDelete'";
```

List of functionalities of the project and its associated screenshots from front end

Admin login:



The screenshot shows the front-end of the LinguaLuxe application. At the top, there is a navigation bar with the logo "LinguaLuxe" on the left and links for "HOME", "ABOUT", "COURSES", and "PAGES" on the right. Below the navigation bar is a large banner image of a smiling woman wearing a graduation cap, with the text "Log In" overlaid in white. Below the banner is a login form with a light blue header containing the word "LOGIN" in white. The form has two input fields: the first is labeled "(Email)" and contains the text "harinder@gmail.com"; the second is labeled "Password" and contains the text "harinder123". Below these fields is a teal "Login" button.

User Data:

LanguaLuxe					HOME	ABOUT	COURSES	PAGES ▾	Log Out
Update									
User ID	First Name	Last Name	Email	Password					
USR_01	Harinder	Symons	harinder@gmail.com	password1					
USR_02	Davis	Jefferson	davis@gmail.com	password2					
USR_03	Madelyn	Rakes	madelyn@gmail.com	password3					
USR_04	Roslyn	Plank	roslyn@gmail.com	password4					
USR_05	Prunella	Benson	prunella@gmail.com	password5					
USR_06	Melvin	Taft	melvin@gmail.com	password6					
USR_07	Onaida	Steele	onaida@gmail.com	password7					
USR_08	Linda	Bell	linda@gmail.com	password8					
USR_09	Jolie	Love	jolie@gmail.com	password9					
USR_10	Miles	Willard	miles@gmail.com	password10					

Inserting User:

LanguaLuxe					HOME	ABOUT	COURSES	PAGES ▾	Log Out
User Management									
User ID:									
<input type="text" value="USR_11"/>									
First Name:									
<input type="text" value="u1"/>									
Last Name:									
<input type="text" value="l1"/>									
Email:									
<input type="text" value="user11@gmail.com"/>									
Password:									
<input type="password" value=""/>									
Insert									

After Insertion:

LanguaLuxe					HOME	ABOUT	COURSES	PAGES ▾	Log Out
User ID	First Name	Last Name	Email	Password					
USR_01	Harinder	Symons	harinder@gmail.com	password1					
USR_02	Davis	Jefferson	davis@gmail.com	password2					
USR_03	Madelyn	Rakes	madelyn@gmail.com	password3					
USR_04	Roslyn	Plank	roslyn@gmail.com	password4					
USR_05	Prunella	Benson	prunella@gmail.com	password5					
USR_06	Melvin	Taft	melvin@gmail.com	password6					
USR_07	Onaida	Steele	onaida@gmail.com	password7					
USR_08	Linda	Bell	linda@gmail.com	password8					
USR_09	Jolie	Love	jolie@gmail.com	password9					
USR_10	Miles	Willard	miles@gmail.com	password10					
USR_11	u1	l1	user11@gmail.com	password11					

DELETE:

User ID to Delete:

USR_11

Delete

AFTER DELETION:

User deleted successfully

ADMIN DASHBOARD

User ID	First Name	Last Name	Email	Password
USR_01	Harinder	Symons	harinder@gmail.com	password1
USR_02	Davis	Jefferson	davis@gmail.com	password2
USR_03	Madelyn	Rakes	madelyn@gmail.com	password3
USR_04	Roslyn	Plank	roslyn@gmail.com	password4
USR_05	Prunella	Benson	prunella@gmail.com	password5
USR_06	Melvin	Taft	melvin@gmail.com	password6
USR_07	Oneida	Steele	oneida@gmail.com	password7
USR_08	Linda	Bell	linda@gmail.com	password8
USR_09	Jolie	Love	jolie@gmail.com	password9
USR_10	Miles	Willard	miles@gmail.com	password10

UPDATE:

User ID to Update:

USR_10

New First Name:

Updated

New Last Name:

updated

New Email:

updated@gmail.com

New Password:

.....

Update


After Updating:

User updated successfully

ADMIN DASHBOARD

User ID	First Name	Last Name	Email	Password
USR_01	Harinder	Symons	harinder@gmail.com	password1
USR_02	Davis	Jefferson	davis@gmail.com	password2
USR_03	Madelyn	Rakes	madelyn@gmail.com	password3
USR_04	Roslyn	Plank	roslyn@gmail.com	password4
USR_05	Prunella	Benson	prunella@gmail.com	password5
USR_06	Melvin	Taft	melvin@gmail.com	password6
USR_07	Oneida	Steele	oneida@gmail.com	password7
USR_08	Linda	Bell	linda@gmail.com	password8
USR_09	Jolie	Love	jolie@gmail.com	password9
USR_10	Updated	updated	updated@gmail.com	updated

The Admin can also view the languages update and delete them

HOMEABOUTCOURSESPAGES =Log Out

ADMIN DASHBOARD

Language Management


Language ID:

Language:

DELETE:

Language ID to Delete:

UPDATE:



HOMEABOUTCOURSESPAGES▼

Log Out

Delete

Language ID to Update:


lang01

New Language:

lang04

Update

Language ID	Language
lang01	lang04
lang02	german
lang03	spanish



HOMEABOUTCOURSESPAGES▼

Log Out

USER LANGUAGES : SPANISH


User ID	First Name	Last Name
USR_04	Boslyn	Plank
USR_09	Jolie	Love

USER LANGUAGES : GERMAN

User ID	First Name	Last Name
USR_01	Harinder	Symons
USR_04	Boslyn	Plank
USR_05	Prunella	Benson

USER LANGUAGES : FRENCH

QUIZ:



HOMEABOUTCOURSESPAGES▼

Log Out

QuizID	LanguageID	Question	Answer
q01_f	lang02	What do you call your father in German?	Vater
q02_f	lang03	How do you say Hello in Spanish?	Hola
q03_f	lang02	What is "esik" in German?	Milch
q03_f	lang03	What is the Spanish word for "Husband"?	esposo
q03_f	lang02	How do you say "Please help me", in German?	Bittu hilf mir
q03_f	lang03	How do you ask for help politely in Spanish?	por favor, ayúdame
q04_f	lang03	What do you call a lemon in Spanish?	limón
q05_f	lang02	What is "potato" in German?	Kartoffel
q05_f	lang03	What do you call a potato in Spanish?	papa
q05_f	lang02	How do you ask someone where the hospital is in German?	wo ist das Krankenhaus

ADMIN DASHBOARD

Quiz

Quiz ID:

q01_r

Language ID:

lang01

Question:

what do you say for hello

Answer:

hallo

Insert




DELETE:

Quiz ID to Delete:

lang02

Delete

UPDATE:

 LinguaLux

HOMEABOUTCOURSESPAGES▼

Log Out

Delete

Quiz ID to Update:

q01_r

New Language ID:

lang04

New Question:

this question is updated

New Answer:

updated

Update




Greetings and Farewell

Language ID:	<input type="text" value="lang01"/>
Quiz ID:	<input type="text" value="q01_x"/>
Words in Language:	<input type="text" value="bread"/>
English Meaning:	<input type="text" value="brot"/>
<input type="button" value="Insert"/>	

Quiz ID to Delete:

Quiz ID to Update:

FOOD:



HOMEABOUTCOURSESPAGES▼Log Out

ADMIN DASHBOARD

Food Items

Quiz ID:

Language ID:

Words in Language:

English Meaning:

Insert

DELETE:

Quiz ID to Delete:

Delete

UPDATE:


Quiz ID to Update:

New Language ID:

New Words in Language:

New English Meaning:

Update




HOMEABOUTCOURSESPAGES▼Log Out

Update

Quiz ID	Language ID	Words in Language	English Meaning
q01_f	lang02	brød	bread
q01_f	lang03	pan de moka	bread
q02_f	lang02	Butter	butter
q02_f	lang03	mantequilla	butter
q03_f	lang02	Milch	milk
q03_f	lang03	Leche	milk
q04_f	lang02	Zitroen	lemon
q04_f	lang03	limón	lemon
q05_f	lang02	Kartoffel	potato
q05_f	lang03	papa	potato

↑

TRAVEL:

 LinguaLux

HOMEABOUTCOURSESPAGES ▾Log Out

ADMIN DASHBOARD

Travel

Quiz ID:

Language ID:

Words in Language:

English Meaning:


Insert

DELETE:

Quiz ID to Delete:

Delete

UPDATE:

 LinguaLux

HOMEABOUTCOURSESPAGES ▾Log Out

Quiz ID to Update:

New Language ID:

New Words in Language:

New English Meaning:

Update

LanguaLuxe		HOME	ABOUT	COURSES	PAGES	Log Out
Update						
Quiz ID	Language ID	Words in Language	English Meaning			
q01_1	lang02	hallo	hello			
q01_1	lang03	Hola	hello			
q02_1	lang02	wie geht	how are			
q02_1	lang03	cómo es?	how are			
q03_1	lang02	Bitte	please			
q03_1	lang03	por favor	please			
q04_1	lang02	Mir geht	I am fine			
q04_1	lang03	Estoy bi	I am fine			
q05_1	lang02	wo ist d	where is			
q05_1	lang03	Dónde es	where is			

FREQUENTLY USED WORDS:

LanguaLuxe	HOME	ABOUT	COURSES	PAGES	Log Out
ADMIN DASHBOARD					
Frequently Used Words					
Quiz ID:	<input type="text"/>				
Language ID:	<input type="text"/>				
Words in Language:	<input type="text"/>				
English Meaning:	<input type="text"/>				
<input type="button" value="Insert"/>					

DELETE:

Quiz ID to Delete:	<input type="text"/>
<input type="button" value="Delete"/>	

UPDATE:

LinguaLuxe

HOMEABOUTCOURSESPAGES▼Log Out

Delete

Quiz ID to Update:

New Language ID:

New Words in Language:

New English Meaning:

Update

LinguaLuxe

HOMEABOUTCOURSESPAGES▼Log Out

Quiz ID	Language ID	Words in Language	English Meaning
q06_f	lang03	Hallo	hello
q07_f	lang02	danke	thanks
q08_f	lang02	bitte	please
q09_f	lang02	entschuldigung	excuse me
q10_f	lang02	gut	good
q11_f	lang03	heute	hello
q12_f	lang03	gracias	thanks
q13_f	lang03	por favor	please
q14_f	lang03	perdon	excuse me
q15_f	lang03	bueno	good

USER LOGIN:

LinguaLuxe

HOMEABOUTCOURSESPAGES▼

Log In


EMAIL

devia@gmail.com

password

Log In

USER UPDATE:

HOMEABOUTCOURSESPAGES▼Log Out

User Profile

User ID	First Name	Last Name	Email	Password
USR_02	Davis	Jefferson	davis@gmail.com	password2

Update User Information


New First Name:

New Last Name:

New Email:

New Password:

Update

HOMEABOUTCOURSESPAGES▼Log Out

USER DASHBOARD

Languages

Language ID	Language
lang02	german

Select Another Language

Select a Language:

german ▼

Add Language

QUIZ:

LanguaLuxe

HOMEABOUTCOURSESPAGESLog Out

QUIZ

What do you call your father in German?

vater

What is "milch" in German?

milch

How do you say "Please help me", in German?

Bitte hilf mir

What is "pommes" in German?

Kartoffel

How do you ask someone where the hospital is in German?

wo das Krankenhaus ist

Submit Quiz

QUIZ SCORE:

Your score is: 2

QUIZ

USER GREETINGS AND FAREWELL:

LanguaLuxe

HOMEABOUTCOURSESPAGESLog Out

FarewellWords

USER DASHBOARD

Greetings and Farewell

german

Words in Language	English Meaning
Hallo	Hello
Wie geht es	How ar
Danke	Thanks
Entschuldigu	Excuse
Guten Tag	Good d

FOOD:

german

Words in Language	English Meaning
breit	broad
Butter	butter
Milch	milk
Zitrone	lemon
Kartoffel	potato



german

Words in Language	English Meaning
hallo	hello
wie geht	how are
bitte hi	please hi
Ich geht	I am fin
wo ist d	where is



FREQUENTLY USED WORDS:


HOME ABOUT COURSES PAGES Log Out

USER DASHBOARD

Frequently Used Words

german

Words in Language	English Meaning
Hallo	hello
danke	thanks
bitte	please
entschuldung	excuse me
gut	good

Triggers, Procedures/Functions, Nested query, Join, Aggregate queries

Add parameter

Return type
DECIMAL

Return length/values
10,2

Return options

Definition

```

1 BEGIN
2 DECLARE avg_score DECIMAL(10, 2);
3
4 SELECT AVG(score) INTO avg_score FROM Quiz_Score WHERE language_id = lang_id;
5
6 -- If there are no scores for the specified language, return NULL
7 IF avg_score IS NULL THEN
8 RETURN NULL;
9 ELSE
10 RETURN avg_score;
11 END IF;
12 END

```

Go Close

Edit

Add parameter

```

1 BEGIN
2   DECLARE userID VARCHAR(255);
3
4   -- Get the user ID based on the email
5   SELECT userID INTO userID FROM user WHERE email = userEmail;
6
7   -- Check if the user already has the selected language
8   IF NOT EXISTS (SELECT * FROM user_lang WHERE userID = userID AND language_id = selectedLanguageID) THEN
9     -- Add the selected language to the user
10    INSERT INTO user_lang (userID, language_id) VALUES (userID, selectedLanguageID);
11  ELSE
12    SIGNAL SQLSTATE '45000';
13    SET MESSAGE_TEXT = 'User already has the selected language';
14  END IF;
15 END

```

☐

☒

Edit

Parameters

IN lang_id VARCHAR 6

INOUT new_score INT

Add parameter

```

2 DECLARE max_score INT;
3 DECLARE current_score INT;
4
5 -- Retrieve the current score
6 SELECT score INTO current_score FROM Quiz_Score WHERE userID = user_id AND language_id = lang_id;
7
8 -- Determine the maximum score based on your logic
9 IF new_score <= current_score THEN
10   -- If the new score is greater, update max_score and new_score
11   SET max_score = new_score;
12   SET new_score = max_score;
13
14   -- Update the Quiz_Score table with the new score
15   UPDATE Quiz_Score SET score = new_score WHERE userID = user_id AND language_id = lang_id;
16 END IF;
17 END

```

☐

☒

Go Close

Edit

OUT
p_score
INT

Add parameter

Definition

```

1 BEGIN
2 DECLARE score INT DEFAULT 0;
3 DECLARE correctAnswer VARCHAR(255);
4 DECLARE userAnswer VARCHAR(255);
5 DECLARE questionID VARCHAR(5);
6
7 DECLARE cur CURSOR FOR
8 SELECT quiz_id, answer
9 FROM quiz
10 WHERE language_id = p_languageID;
11
12 OPEN cur;
13
14 read_loop LOOP
15 FETCH cur INTO questionID, correctAnswer;
16 IF (p_quizAnswers IS NULL) THEN

```

Is deterministic ☐

Adjust

Go Close

Edit

OUT
p_score
INT

Add parameter

Definition

```

16 IF (p_quizAnswers IS NULL) THEN
17 LEAVE read_loop;
18 END IF;
19
20 SET userAnswer = JSON_UNQUOTE(JSON_EXTRACT(p_quizAnswers, CONCAT('$.', questionID, '')));
21
22 IF (userAnswer = correctAnswer) THEN
23 SET score = score + 1;
24 END IF;
25 END LOOP;
26
27 CLOSE cur;
28
29 -- Set the output parameter
30 SET p_score = score;
31 END

```

Is deterministic ☐

Adjust

Go Close

Edit

Time
BEFORE
Event
UPDATE
Definition

```

1 BEGIN
2 DECLARE useri VARCHAR(6);
3 DECLARE langi VARCHAR(6);
4 DECLARE new_score INT;
5 DECLARE updated_score INT;
6
7 SET useri = NEW.userid;
8 SET langi = NEW.language_id;
9 SET new_score = NEW.score;
10
11 -- Call the update_score procedure
12 CALL update_score(useri, langi, new_score);
13
14 -- The NEW.score is updated by the procedure; no need for INTO or SET here
15 END

```

Definer
root@localhost

Go Close

TRIGGER: Before update_score

BEGIN

```

DECLARE useri VARCHAR(6);
DECLARE langi VARCHAR(6);
DECLARE new_score INT;
DECLARE updated_score INT;

```

```

SET useri = NEW.userid;
SET langi = NEW.language_id;
SET new_score = NEW.score;

```

```

-- Call the update_score procedure
CALL update_score(useri, langi, new_score);

```

```

-- The NEW.score is updated by the procedure; no need for INTO or SET here
END

```

AGGREGATE FUNCTIONS: To calculate Average score

BEGIN

```

DECLARE avg_score DECIMAL(10, 2);

```

```

SELECT AVG(score) INTO avg_score FROM Quiz_Score WHERE language_id = lang_id;

```

```

-- If there are no scores for the specified language, return NULL
IF avg_score IS NULL THEN
    RETURN NULL;
ELSE
    RETURN avg_score;
END IF;
END

```

PROCEDURES: Add user Language

```

BEGIN
    DECLARE userID VARCHAR(255);

    -- Get the user ID based on the email
    SELECT userid INTO userID FROM user WHERE email = userEmail;

    -- Check if the user already has the selected language
    IF NOT EXISTS (SELECT * FROM user_lang WHERE userid = userID AND language_id =
selectedLanguageID) THEN
        -- Add the selected language to the user
        INSERT INTO user_lang (userid, language_id) VALUES (userID, selectedLanguageID);
    ELSE
        SIGNAL SQLSTATE '45000'
        SET MESSAGE_TEXT = 'User already has the selected language';
    END IF;
END

```

Calculate Quiz Score:

```

BEGIN
    DECLARE score INT DEFAULT 0;
    DECLARE correctAnswer VARCHAR(255);
    DECLARE userAnswer VARCHAR(255);
    DECLARE questionID VARCHAR(5);

    DECLARE cur CURSOR FOR
        SELECT quiz_id, answer
        FROM quiz
        WHERE language_id = p_languageID;

    OPEN cur;

    read_loop: LOOP
        FETCH cur INTO questionID, correctAnswer;
        IF (p_quizAnswers IS NULL) THEN
            LEAVE read_loop;
        END IF;

        SET userAnswer = JSON_UNQUOTE(JSON_EXTRACT(p_quizAnswers, CONCAT('$.', questionID,
''')));

        IF (userAnswer = correctAnswer) THEN
            SET score = score + 1;

```

```

        END IF;
    END LOOP;

    CLOSE cur;

    -- Set the output parameter
    SET p_score = score;
END

Update score:
BEGIN
    DECLARE max_score INT;
    DECLARE current_score INT;

    -- Retrieve the current score
    SELECT score INTO current_score FROM Quiz_Score WHERE userid = user_id AND language_id = lang_id;

    -- Determine the maximum score based on your logic
    IF new_score <= current_score THEN
        -- If the new score is greater, update max_score and new_score
        SET max_score = new_score;
        SET new_score = max_score;

        -- Update the Quiz_Score table with the new score
        UPDATE Quiz_Score SET score = new_score WHERE userid = user_id AND language_id = lang_id;
    END IF;

```

JOINS:

Selected languages

```

// Fetch user's selected languages
$email = $_SESSION['email'];
$userLanguagesQuery = "SELECT l.language_id, l.language FROM user_lang ul
                        JOIN user u ON ul.userid = u.userid
                        JOIN Language l ON ul.language_id = l.language_id
                        WHERE u.email = '$email'";
$userLanguagesResult = $conn->query($userLanguagesQuery);

```

Frequent table:

```

// Fetch user's selected languages
$email = $_SESSION['email'];
✓ $userLanguagesQuery = "SELECT l.language_id, l.language FROM user_lang ul
                        JOIN user u ON ul.userid = u.userid
                        JOIN Language l ON ul.language_id = l.language_id
                        WHERE u.email = '$email'";
$userLanguagesResult = $conn->query($userLanguagesQuery);

```

Greetings and farewell table:

```
// Fetch user's selected languages
$email = $_SESSION['email'];
$userLanguagesQuery = "SELECT l.language_id, l.language FROM user_lang ul
                        JOIN user u ON ul.userid = u.userid
                        JOIN Language l ON ul.language_id = l.language_id
                        WHERE u.email = '$email'";
$userLanguagesResult = $conn->query($userLanguagesQuery);
```

Languages:

```
// Fetch user languages
$userLanguagesQuery = "SELECT l.language_id, l.language FROM Language l
                        JOIN user_lang ul ON l.language_id = ul.language_id
                        JOIN user u ON ul.userid = u.userid
                        WHERE u.email = '$email'";
$userLanguagesResult = $conn->query($userLanguagesQuery);
```

Quiz:

```
// Fetch user's selected language
$email = $_SESSION['email'];
$userLanguageQuery = "SELECT ul.language_id FROM user_lang ul
                      JOIN user u ON ul.userid = u.userid
                      JOIN Language l ON ul.language_id = l.language_id
                      WHERE u.email = '$email'";
$userLanguageResult = $conn->query($userLanguageQuery);
```

Travel table:

```
// Fetch user's selected languages
$email = $_SESSION['email'];
✓ $userLanguagesQuery = "SELECT l.language_id, l.language FROM user_lang ul
                        JOIN user u ON ul.userid = u.userid
                        JOIN Language l ON ul.language_id = l.language_id
                        WHERE u.email = '$email'";
$userLanguagesResult = $conn->query($userLanguagesQuery);
```

TO retrieve languages:

```
// Execute the main query to retrieve users who have language proficiency in Spanish
$query = "
    SELECT u.userid, u.firstname, u.lastname
    FROM user u
    WHERE EXISTS (
        SELECT *
        FROM user_lang l
        WHERE l.userid = u.userid
        AND l.language_id = (
            SELECT language_id
            FROM language
            WHERE language = 'spanish'
        )
    );
```

```
// Execute the main query to retrieve users who have language proficiency in Spanish
$query = "
    SELECT u.userid, u.firstname, u.lastname
    FROM user u
    WHERE EXISTS (
        SELECT *
        FROM user_lang l
        WHERE l.userid = u.userid
        AND l.language_id = (
            SELECT language_id
            FROM language
            WHERE language = 'german'
        )
    )
";
```

```
// Execute the main query to retrieve users who have language proficiency in Spanish
$query = "
    SELECT u.userid, u.firstname, u.lastname
    FROM user u
    WHERE EXISTS (
        SELECT *
        FROM user_lang l
        WHERE l.userid = u.userid
        AND l.language_id = (
            SELECT language_id
            FROM language
            WHERE language = 'french'
        )
    )
";
```