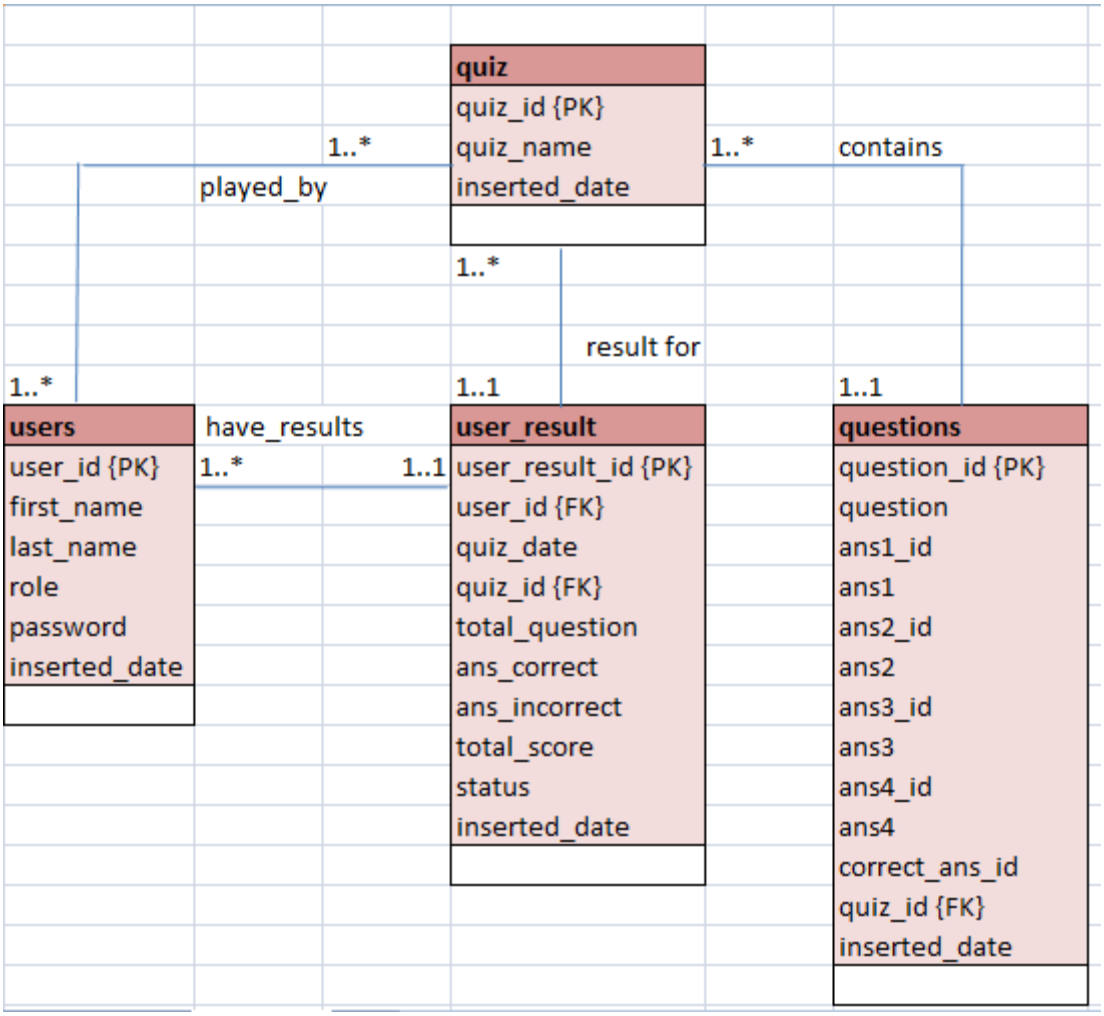
Osaka
Database Design Specification

Server: The server used for the project Osaka was dbteach2.

Database: The database created for this project is called **osakagp.** The owner of the database is dxf321 (Deedar). The other team members will be given access to the database shortly.

Entity-Relationship Diagram:



Tables:

The tables created in osakagp DB are as follows.

USERS

Table name	users			
Description	This table stores the login information of administrators and students.			
Attribute	**Description**	**Type**	**Nullability**	**Example of values**
user_id	Unique ID of an admin/ student	BIG INT	NOT NULL	Between 1 and 9223372036854775807
first_name	First name of admin/ student	VARCHAR (20)	NULL	Mary
last_name	Last name of admin/ student	VARCHAR (20)	NULL	Ande
role	Role of user	VARCHAR (20)	NULL	admin or student
password	Password entered by admin/student to access the tool	VARCHAR (10)	NULL	
inserted_date	Timestamp of the transaction	TIMESTAMP	NOT NULL	DEFAULT is the current timestamp.
Primary Key	user_id			
Foreign Key				
SQL code	SELECT * FROM users;			

QUIZ

Table name	quiz			
Description	This table stores topic or category of quiz along with a unique ID			
Attribute	**Description**	**Type**	**Nullability**	**Example of values**
quiz_id	Unique ID of quiz	BIG INT	NOT NULL	Between 1 and 9223372036854775807
quiz_name	Topic of quiz	VARCHAR (40)	NULL	Politics, Sports
inserted_date	Timestamp of the transaction	TIMESTAMP	NOT NULL	DEFAULT is the current timestamp.
Primary Key	quiz_id			
Foreign Key				
SQL code	SELECT * FROM quiz;			

QUESTIONS

Table name	questions			
Description	This table contains questions which are answered in quiz. It also contains the possible answers (maximum 4) for each question.			
Attribute	**Description**	**Type**	**Nullability**	**Example of values**
question_id	Unique ID of question	BIG INT	NOT NULL	Between 1 and 9223372036854775807

question	The question to be answered by students	VARCHAR (100)	NULL	In which country is the Albert canal?
ans1_id	ID of first possible answer	INT	NOT NULL	DEFAULT is 1
ans1	First possible answer	VARCHAR (40)	NULL	Spain
ans2_id	ID of second possible answer	INT	NOT NULL	DEFAULT is 2
ans2	Second possible answer	VARCHAR (40)	NULL	Belgium
ans3_id	ID of third possible answer	INT	NOT NULL	DEFAULT is 3
ans3	Third possible answer	VARCHAR (40)	NULL	Canada
ans4_id	ID of fourth possible answer	INT	NOT NULL	DEFAULT is 4
ans4	Fourth possible answer	VARCHAR (40)	NULL	Portugal
correct_ans_id	The ID of correct answer	INT	NOT NULL	2
quiz_id	The ID of quiz	BIG INT	NOT NULL	4
inserted_date	Timestamp of the transaction	TIMESTAMP	NOT NULL	DEFAULT is the current timestamp.
Primary Key	question_id			
Foreign Key	quiz_id			
SQL code	SELECT * FROM questions;			

USER_RESULT

Table name	user_result			
Description	This table contains the historical quiz result of all the students.			
Attribute	**Description**	**Type**	**Nullability**	**Example of values**
user_result_id	Unique ID for the row	BIG INT	NOT NULL	Between 1 and 9223372036854775807
user_id	ID of user	BIG INT	NOT NULL	Between 1 and 9223372036854775807
quiz_date	Date on which quiz is played	TIMESTAMP	NOT NULL	DEFAULT is Current Timestamp
quiz_id	ID of quiz played by the student	BIG INT	NOT NULL	Between 1 and 9223372036854775807
total_question	Number of questions displayed in a quiz	INT	NULL	10
ans_correct	Number of questions answered correctly before any other student	INT	NULL	Between 0 and 10
ans_incorrect	Number of questions answered incorrectly	INT	NULL	Between 0 and 10
total_score	Number of questions answered correctly before any	INT	NULL	Between 0 and 10

	other student			
status	If a student won or lost the quiz	VARCHAR(10)	NULL	WON or LOST
inserted_date	Timestamp of the transaction	TIMESTAMP	NOT NULL	DEFAULT is the current timestamp.
Primary Key	user_result_id			
Foreign Key	user_id, quiz_id			
SQL code	SELECT * FROM user_result;			

SQL statements for database and tables creation:

```
CREATE DATABASE osakadb OWNER dxf321;

CREATE TABLE users
(
user_id  BIGSERIAL PRIMARY KEY,
first_name VARCHAR (20),
last_name VARCHAR (20),
role VARCHAR (20),
password VARCHAR (10),
inserted_date timestamp default current_timestamp
);


CREATE TABLE quiz
 (
quiz_id  BIGSERIAL PRIMARY KEY,
quiz_name VARCHAR (40),
 inserted_date timestamp default current_timestamp
);


CREATE TABLE questions
 (
question_id  BIGSERIAL PRIMARY KEY,
question VARCHAR (100),
ans1_id INT default 1,
ans1 VARCHAR (40),
ans2_id INT default 2,
ans2 VARCHAR (40),
ans3_id INT default 3,
ans3 VARCHAR (40),
ans4_id INT default 4,
 ans4 VARCHAR (40),
correct_ans_id INT NOT NULL,
quiz_id BIGINT REFERENCES quiz (quiz_id),
inserted_date timestamp default current_timestamp
);
```

```
CREATE TABLE user_result (
user_result_id  BIGSERIAL PRIMARY KEY,
 user_id  BIGINT  REFERENCES users (user_id),
quiz_date timestamp default current_timestamp,
quiz_id BIGINT  REFERENCES quiz(quiz_id),
total_question INT,
ans_correct INT,
ans_incorrect INT,
total_score INT,
status VARCHAR (10),
 inserted_date timestamp default current_timestamp
);
```

Tables Load:

```
INSERT INTO users (first_name, last_name, role) VALUES ('Mary', 'Ande', 'student');
 INSERT INTO users (first_name, last_name, role) VALUES ('Andrew', 'Baker', 'student');
 INSERT INTO users (first_name, last_name, role) VALUES ('Katie', 'Bowyer', 'student');
 INSERT INTO users (first_name, last_name, role) VALUES ('Katherine', 'Brittain', 'student');
 INSERT INTO users (first_name, last_name, role) VALUES ('Thomas', 'Chapman', 'student');
 INSERT INTO users (first_name, last_name, role) VALUES ('Andrew', 'Green', 'student');
INSERT INTO users (first_name, last_name, role) VALUES ('Matthew', 'Harris', 'student');
INSERT INTO users (first_name, last_name, role) VALUES ('Ella', 'Hibbert', 'student');
INSERT INTO users (first_name, last_name, role) VALUES ('Daniel', 'Hirst', 'student');
INSERT INTO users (first_name, last_name, role) VALUES ('Antony', 'Judd', 'student');
INSERT INTO users (first_name, last_name, role) VALUES ('George', 'Kiff', 'admin');
INSERT INTO users (first_name, last_name, role) VALUES ('Joseph', 'May', 'admin');

INSERT INTO quiz (quiz_name) VALUES ('History');
INSERT INTO quiz (quiz_name) VALUES ('Politics');
INSERT INTO quiz (quiz_name) VALUES ('Sports');
INSERT INTO quiz (quiz_name) VALUES ('Java');
INSERT INTO quiz (quiz_name) VALUES ('Database');
INSERT INTO quiz (quiz_name) VALUES ('Geography');


INSERT INTO questions (question, ans1, ans2, ans3, ans4, correct_ans_id, quiz_id)
VALUES ('In which country is the Albert canal?', 'Spain', ‘Belgium’, ‘Canada’, ‘Portugal’, 2, 4);

INSERT INTO questions (question, ans1, ans2, ans3, ans4, correct_ans_id, quiz_id)
VALUES ('Which is the only US state named after an English county?',  'Kentucky',  'North Dakota',
 'Vermont',  'New Hampshire', 4, 6);

INSERT INTO questions (question, ans1, ans2, ans3, ans4, correct_ans_id, quiz_id)
VALUES ('Which British cyclist won the 100th edition of the Tour de France?',  'Chris Froome',  'Lizzie
Armitstead',  'Matt Crampton',  'Kyle Evans', 1, 3);

INSERT INTO questions (question, ans1, ans2, ans3, ans4, correct_ans_id, quiz_id)
VALUES ('How many players are there in a basketball team?', '11', '14', '5', 6, 3, 3);
```

```
INSERT INTO user_result (user_id,quiz_id,total_question, ans_correct, ans_incorrect, total_score,
status) VALUES ( 1, 2, 10, 8,  2, 8, 'WON');
INSERT INTO user_result (user_id,quiz_id,total_question, ans_correct, ans_incorrect, total_score,
status) VALUES ( 1, 4, 10, 10,  0, 10, 'WON');
INSERT INTO user_result (user_id,quiz_id,total_question, ans_correct, ans_incorrect, total_score,
status) VALUES ( 6, 2, 10, 10,  0, 10, 'WON');
INSERT INTO user_result (user_id,quiz_id,total_question, ans_correct, ans_incorrect, total_score,
status) VALUES ( 6, 6, 10, 9,  1, 9, 'WON');
INSERT INTO user_result (user_id,quiz_id,total_question, ans_correct, ans_incorrect, total_score,
status) VALUES ( 7, 3, 10, 5,  5, 5, 'LOST');
```