FINAL Exam: DATABASE

WEP 2024
{3h 00}
25 JAN 2023

RULES:

- Chatting and talking to other students is forbidden
- You are allowed to use PhpMyAdmin or VSCode or any other software. But it is not required

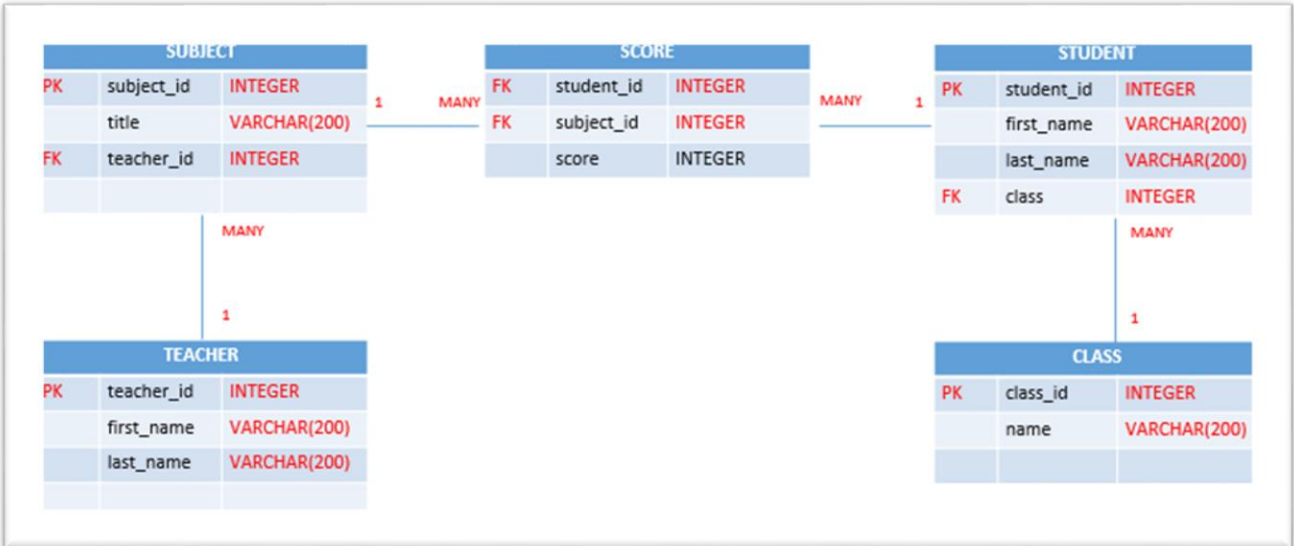- Write (copy/paste) your answer below the question. Do not screenshot.

HOW DO I SUBMIT THE EXAM?
- Save this document as a yourfullname.PDF file
- In Google Classroom, attach this file to submit.

EXERCISES	POINTS
THOERYS	20
EXERCISE 1	20
EXERCISE 2	20
EXERCISE 3	20
EXERCISE 4	20
EXERCISE 5	20
TOTAL	**100**

I. Exercise 03 (20 points) Basic SQL Query

Write SQL query to create tables that have in Entity Relational Diagram (ERD) below:

SUBJECT		
PK	subject_id	INTEGER
	title	VARCHAR(200)
FK	teacher_id	INTEGER

SCORE		
FK	student_id	INTEGER
FK	subject_id	INTEGER
	score	INTEGER

STUDENT		
PK	student_id	INTEGER
	first_name	VARCHAR(200)
	last_name	VARCHAR(200)
FK	class	INTEGER

TEACHER		
PK	teacher_id	INTEGER
	first_name	VARCHAR(200)
	last_name	VARCHAR(200)

CLASS		
PK	class_id	INTEGER
	name	VARCHAR(200)

Your Query:

- **Teachers**

   CRATE table teachers(
       teacher_id int NOT NULL primary key auto_increment,
       first_name varchar(200),
       last_name varchar(200)
);

- **Classs**

   CREATE table classs(
       class_id int NOT NULL primary key auto_increment,
       name varchar(200)
        );

- **Subjects**
   CREATE table subjects(
       subject_id int NOT NULL primary key auto_increment,
       title varchar(200),
       teacher_id int,
       FOREIGN KEY (teacher_id) REFERENCES teachers(teacher_id)
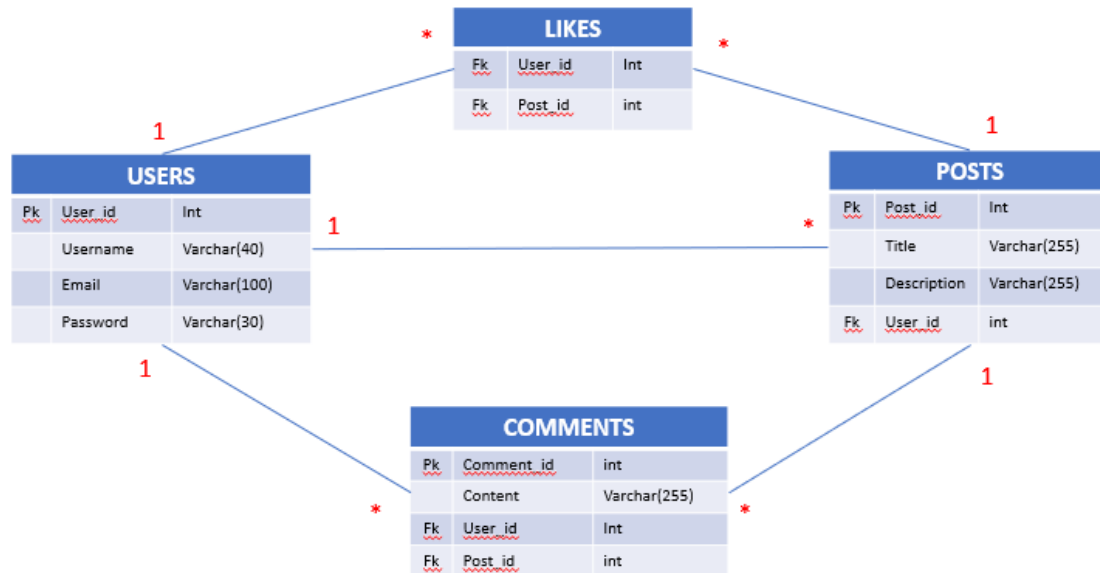   );

- **Students**
  ```
  CREATE table students(
      student_id int NOT NULL primary key auto_increment,
      first_name varchar(200),
      last_name varchar(200),
      class_id int,
      FOREIGN KEY (class_id) REFERENCES classs(class_id)
      );
  ```
- **Score**
  ```
  CREATE table scores(
      student_id int,
      subject_id int,
      FOREIGN KEY (student_id) REFERENCES students(student_id),
      FOREIGN KEY (subject_id) REFERENCES subjects(subject_id)
      );
  ```

II.   Exercise 04 (20 points) SQL Query Select

Important: *Import database name "database_final_exam.sql" into your databasae.*

Q1 – (10 POINTS): Write a SQL statement to display all POSTS for the user named "**Rady Y**"

Expected result:


```
+---------------+-------------------------------------+
| title         | description                         |
+---------------+-------------------------------------+
| Play football | Joining the match with my students  |
| Fishing day!  | I when to my hometown this weekend  |
+---------------+-------------------------------------+
```

Your Query:

SELECT title,description FROM posts
INNER JOIN users ON users.user_id=posts.user_id WHERE username='Rady Y';

Q2 – (10 POINTS): Write a SQL statement to display the username of who likes on many posts.

Expected result:

```
+----------+------------------+
| username | number of likes  |
+----------+------------------+
| Him HEY  |                3 |
+----------+------------------+
```

Your Query:

SELECT users.username,count(username) AS 'Number of likes' FROM likes
INNER JOIN users ON likes.user_id=users.user_id
WHERE users.username='Him Hey';