

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.

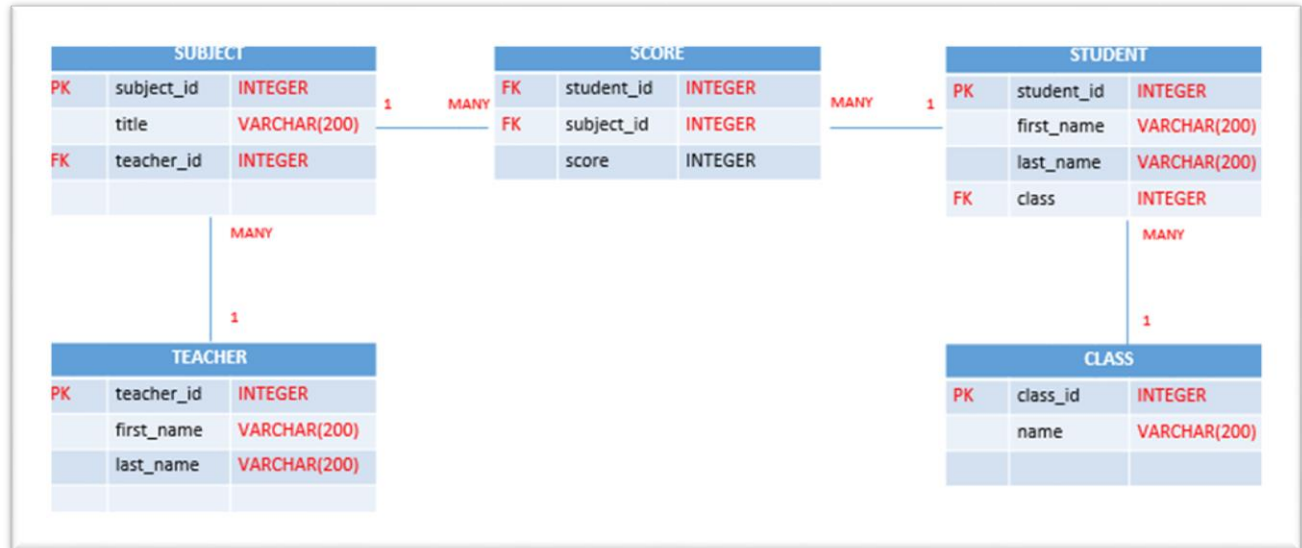
HOW DO I SUBMIT THE EXAM?

- 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:



Your Query:

1. Create teachers table:

```
CREATE TABLE teachers ( teacher_id INT AUTO_INCREMENT PRIMARY KEY ,
first_name VARCHAR(200) , last_name VARCHAR(200));
```

2. Create classes table:

```
CREATE TABLE classes ( class_id INT AUTO INCREMENT PRIMARY KEY , name
VARCHAR(200));
```

3. Create subjects table:

```
CREATE TABLE subjects ( subject_id INT AUTO INCREMENT , title
VARCHAR(200) , teacher_id INT , PRIMARY KEY(subj
ect_id) , FOREIGN KEY (teacher_id) REFERENCES teachers(teacher_id));
```

4. Create students table:

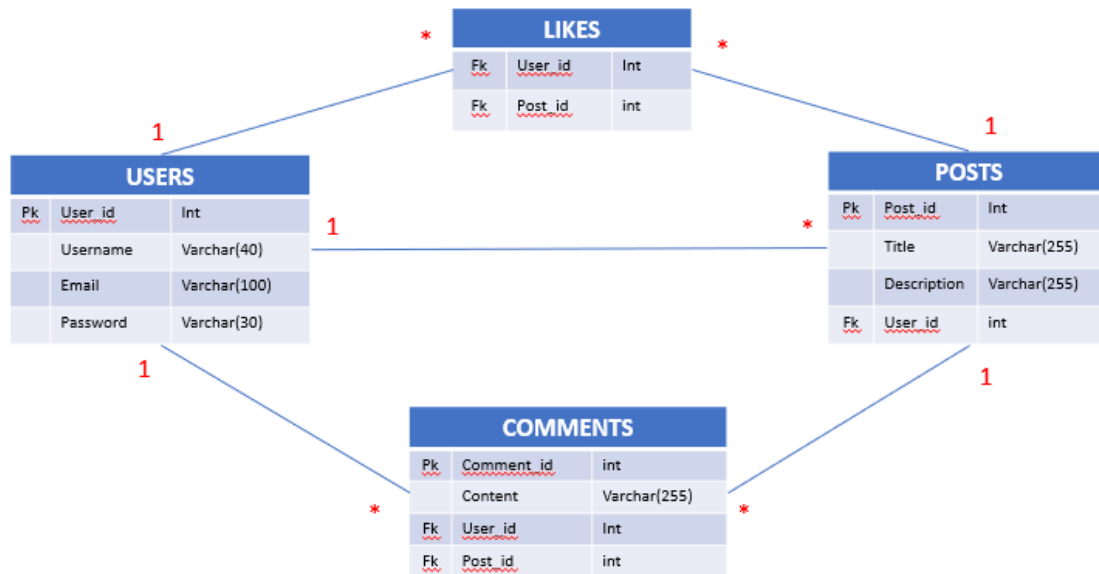
```
CREATE TABLE students ( student_id INT AUTO INCREMENT , first_name
VARCHAR(200) , last_name VARCHAR(200) , class INT , PRIMARY KEY
(student_id) , FOREIGN KEY (class) REFERENCES classes(class_id));
```

5. Create score table:

```
CREATE TABLE score ( student_id INT , subject_id INT , score INT , FOREIGN
KEY ( student_id ) REFERENCES stude
nts(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 databases.



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 posts.title , posts.description FROM (posts INNER JOIN users ON posts.user_id = users.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(likes.user_id) AS number of like FROM (users INNER JOIN  
likes ON users.user_id = likes.user_id ) GROUP BY likes.user_id ORDER BY  
COUNT(likes.user_id) DESC LIMIT 1;
```