**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.

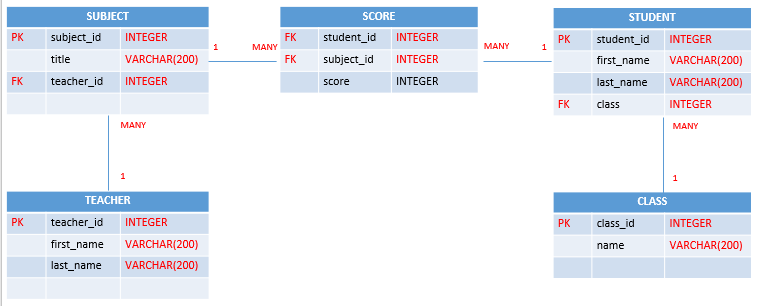
**HOW DO I SUBMIT THE EXAM?**

* Save this document as a yourfullname.PDF file
* In Google Classroom, attach this file to submit.

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

# Exercise 03 (20 points) Basic SQL Query

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

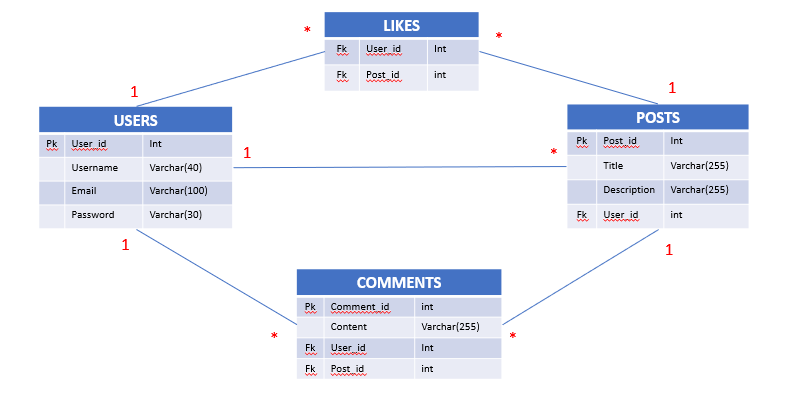


**Your Query:**

|  |
| --- |
| 1. Create teachers table:   **CREATE TABLE teachers ( teacher\_id INT AUTO\_INCREMENT PRIMARY KEY , first\_name VARCHAR(200) , last\_name VARCHAR(200));**   1. Create classes table:   **CREATE TABLE classes ( class\_id INT AUTO\_INCREMENT PRIMARY KEY , name VARCHAR(200));**   1. 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));**   1. 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));**   1. 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));** |
|  |

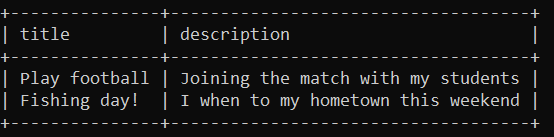
# Exercise 04 (20 points) SQL Query Select

***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:**

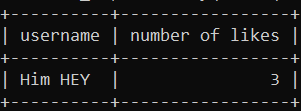


**Your Query:**

|  |
| --- |
| **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:**



**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;** |