

CMP020L012A

Data Analytics

2022/23

Week-4

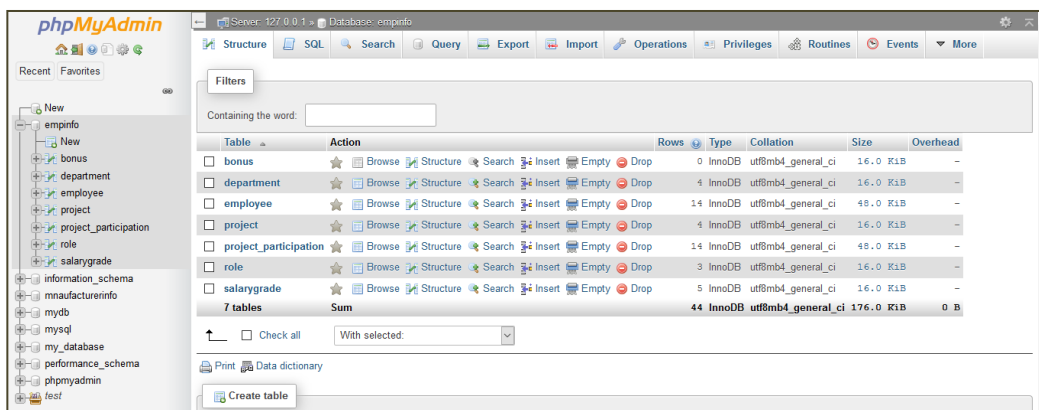
Managing Data in RDBMS using SQL (Advanced SQL Operations)

Lab Task

- Before starting with the lab task today, keep the sample tables of “EmployeeInfo” database from Week-3 ready in your MySQL server. You can copy and paste the SQL statements step by step to define the tables and populate them with values as it is provided to you in the file.

*****This task SHOULD NOT take you more than 15 minutes.**

Ans:



| Table | Action | Rows | Type | Collation | Size | Overhead |
|--|------------|-----------|---------------|---------------------------|------------------|------------|
| <input type="checkbox"/> bonus | | 0 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| <input type="checkbox"/> department | | 4 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| <input type="checkbox"/> employee | | 14 | InnoDB | utf8mb4_general_ci | 48.0 KiB | - |
| <input type="checkbox"/> project | | 4 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| <input type="checkbox"/> project_participation | | 14 | InnoDB | utf8mb4_general_ci | 48.0 KiB | - |
| <input type="checkbox"/> role | | 3 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| <input type="checkbox"/> salarygrade | | 5 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| 7 tables | Sum | 44 | InnoDB | utf8mb4_general_ci | 176.0 KiB | 0 B |

Tasks (Joining):

- In “EmployeeInfo” Database, continue executing the following SQLs:

- Find the project description, project start date, end date and the employee’s name who are working in those projects.
- Find the department’s location and the employee’s name who are working in different locations
- Find the employee’s number, name, salary and salarygrade who do not earn more than 3000.

- d) Find the employee's number department name, location, salary who earn the highest salary among all.
- e) Find the employee's name and their boss's name who work in the research department.
- f) Find employee's number, name, hiredate, department's name and location in ascending order with their department's name.
- g) Find the total number of employees working under different roles along with the role description.
- h) Find the project description, start date, end date and the employee's role description in those projects.

Tasks (Subquery):

3. In "EmployeeInfo" Database, continue executing the following SQLs:

- a) Find the second maximum salary and the employee's name who is paid that.
- b) Find the total number of employees who earns more than the average salary.
- c) Find the employee's number, name and salary grade except for the employee who earns the highest salary.
- d) Write a query to display the employee name and hire date for all employees in the same department as John. Also Exclude Jones's info.
- e) Find the employee's name as "Employee Name", the project description he is working in as "Project title" and the description of the role as "Role of the Employee" who earns the minimum salary.
- f) Find the salaries for all the employees except for the one who earns the highest salary in a descending order.