

Instruction: Attempt all the questions

1. Write the appropriate queries to create the following table and answer the question below:

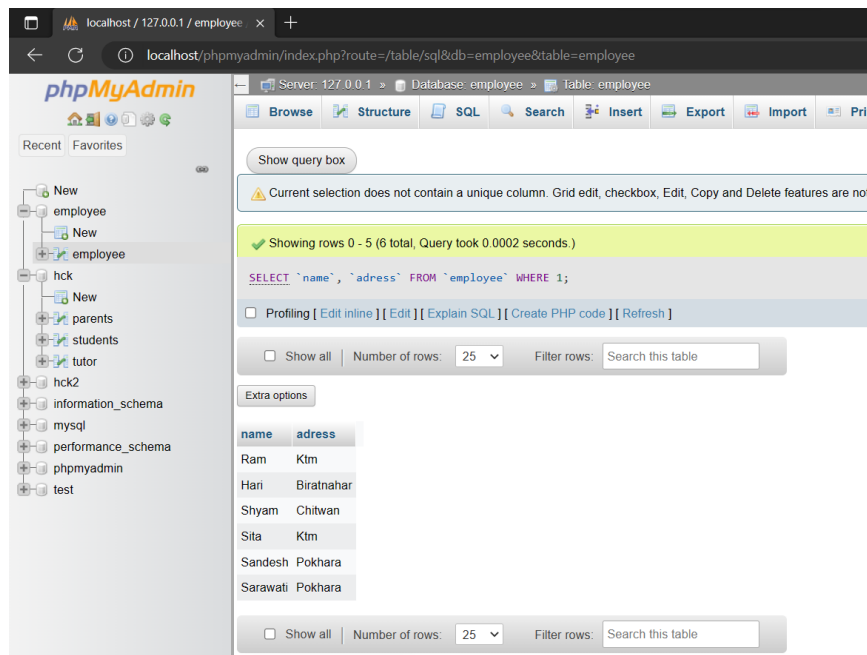
Create table_name as Employee

| Eid | Name | Address |
|-----|-----------|------------|
| 1 | Ram | Ktm |
| 2 | Hari | Biratnagar |
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |
| 5 | Sandesh | Pokhara |
| 6 | Saraswati | Pokhara |

| Eid | name | adress |
|-----|----------|------------|
| 1 | Ram | Ktm |
| 2 | Hari | Biratnagar |
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |
| 5 | Sandesh | Pokhara |
| 6 | Sarawati | Pokhara |

- a) Display all records except Eid.

Select name, address from Employee;



b) Display all Name of the employee in alphabetical order.

Select * from Employee order by name;

Extra options

| Eid | name | address |
|-----|----------|------------|
| 2 | Hari | Biratnagar |
| 1 | Ram | Ktm |
| 5 | Sandesh | Pokhara |
| 6 | Sarawati | Pokhara |
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |

c) Write a query to display the name who lives in ktm and id>2.

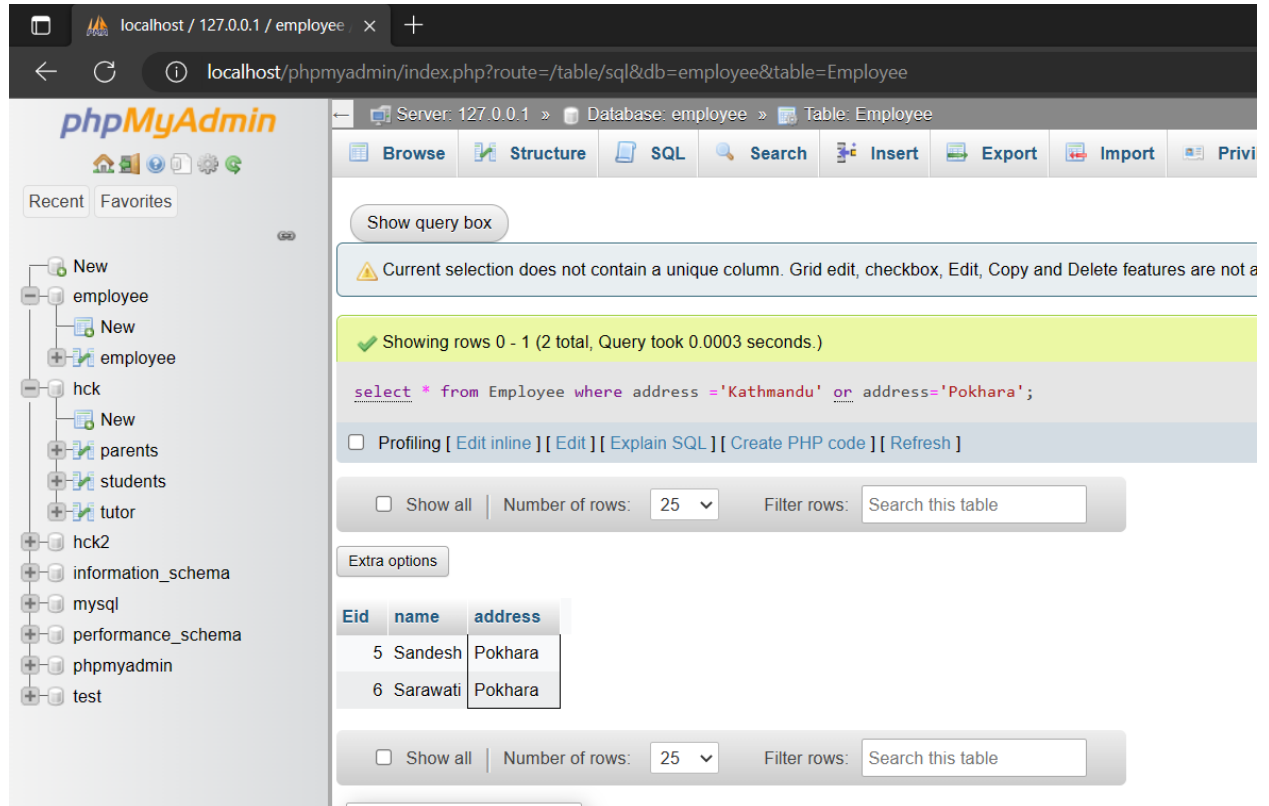
select * from Employee where address ="Kathmandu " AND id >2;

Extra options

| Eid | name | address |
|-----|------|---------|
| 4 | Sita | Ktm |

d) Write a query to display the name who lives either in ktm OR Pokhara.

select * from Employee where address ="Kathmandu " or address="Pokhara";

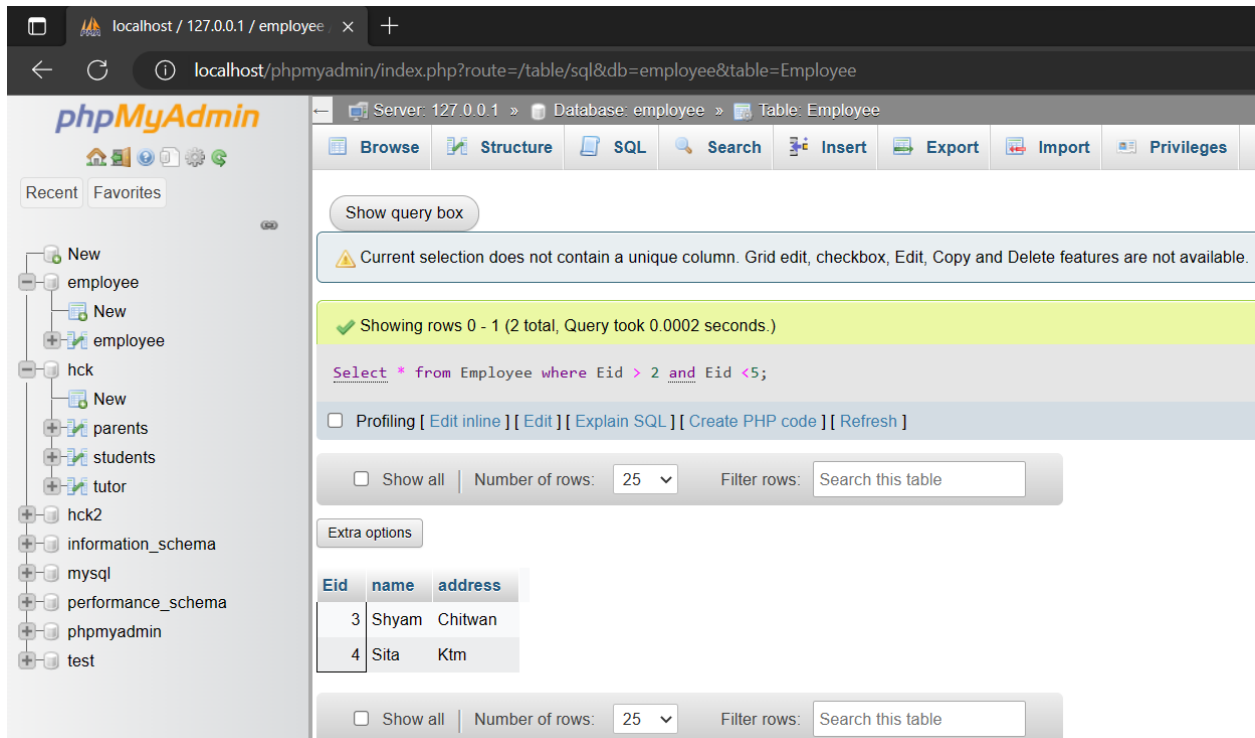


The screenshot shows the phpMyAdmin interface for a database named 'employee'. The left sidebar displays a tree view of databases, including 'employee', 'hck', 'hck2', 'information_schema', 'mysql', 'performance_schema', 'phpmyadmin', and 'test'. The main panel shows the 'Table: Employee' view. A SQL query is entered in the query box: `select * from Employee where address ='Kathmandu' or address='Pokhara';`. The results show 2 rows: Sandesh (Eid 5) and Sarawati (Eid 6), both with address 'Pokhara'.

| Eid | name | address |
|-----|----------|---------|
| 5 | Sandesh | Pokhara |
| 6 | Sarawati | Pokhara |

e) Write a query to display the name whose Eid is between 2 and 5.

Select * from Employee where Eid > 2 and Eid <5;

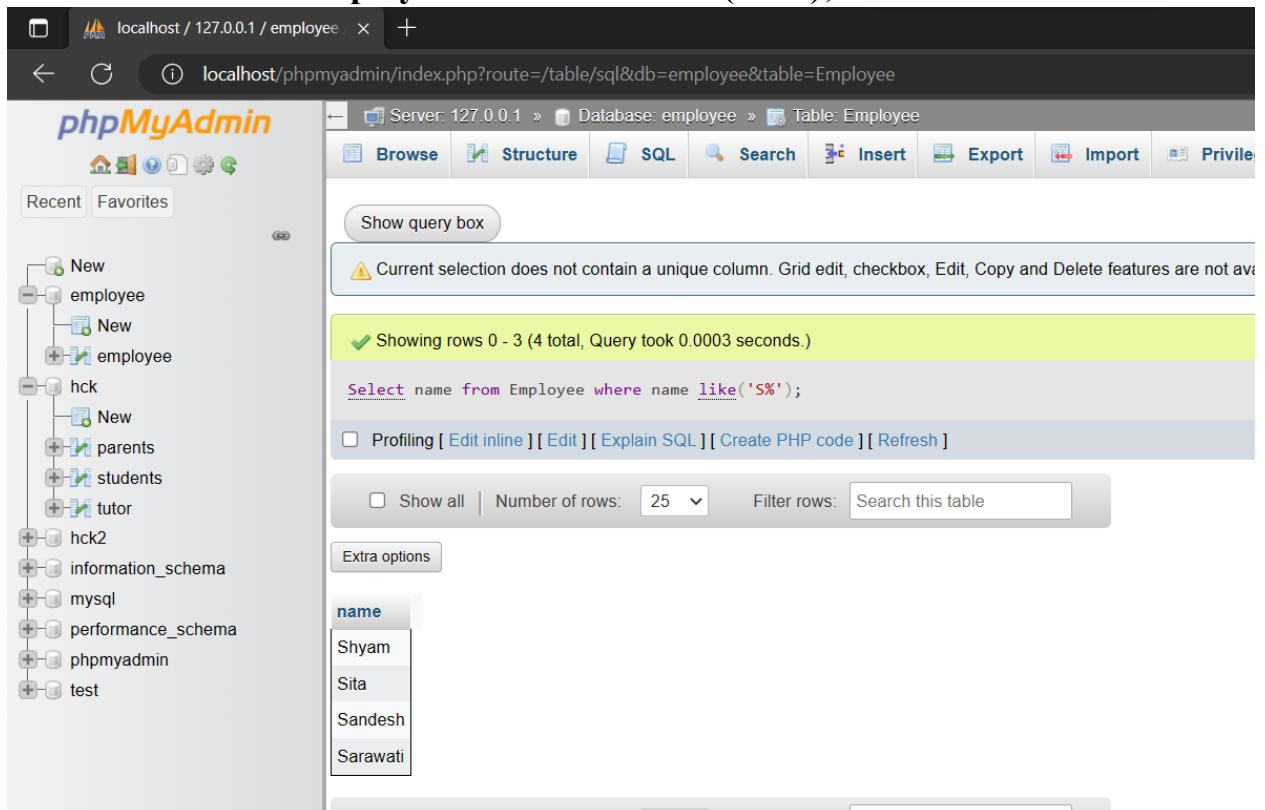


The screenshot shows the phpMyAdmin interface for the 'employee' database. The 'Table: Employee' is selected. The SQL query entered is: `Select * from Employee where Eid > 2 and Eid < 5;`. The result shows 2 rows:

| Eid | name | address |
|-----|-------|---------|
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |

f) List the Name of Employee whose name start with letter 'S'.

Select name from Employee where name like('s%');



The screenshot shows the phpMyAdmin interface for the 'employee' database. The 'Table: Employee' is selected. The SQL query entered is: `Select name from Employee where name like('S%');`. The result shows 4 rows:

| name |
|----------|
| Shyam |
| Sita |
| Sandesh |
| Sarawati |

g) List the Name of Employee whose name containing letter 'e'.

Select name from Employee where name like('%e%');

The screenshot shows the phpMyAdmin interface with the 'Employee' table selected. The SQL query entered is: `Select name from Employee where name like('%e%');`. The result shows 1 row with the name 'Sandesh'.

Server: 127.0.0.1 » Database: employee » Table: Employee

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

`Select name from Employee where name like('%e%');`

Number of rows: 25 | Filter rows: Search this table

Extra options

| name |
|---------|
| Sandesh |

h) Add a new column Esalary in the table Employee after Address field.

Alter table Employee add column Esalary varchar (40);

The screenshot shows the phpMyAdmin interface with the 'Employee' table selected. The SQL query entered is: `SELECT * FROM `employee``. The result shows 6 rows with columns: Eid, name, address, and Esalary. The Esalary column is currently NULL for all rows.

Server: 127.0.0.1 » Database: employee » Table: employee

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

`SELECT * FROM `employee``

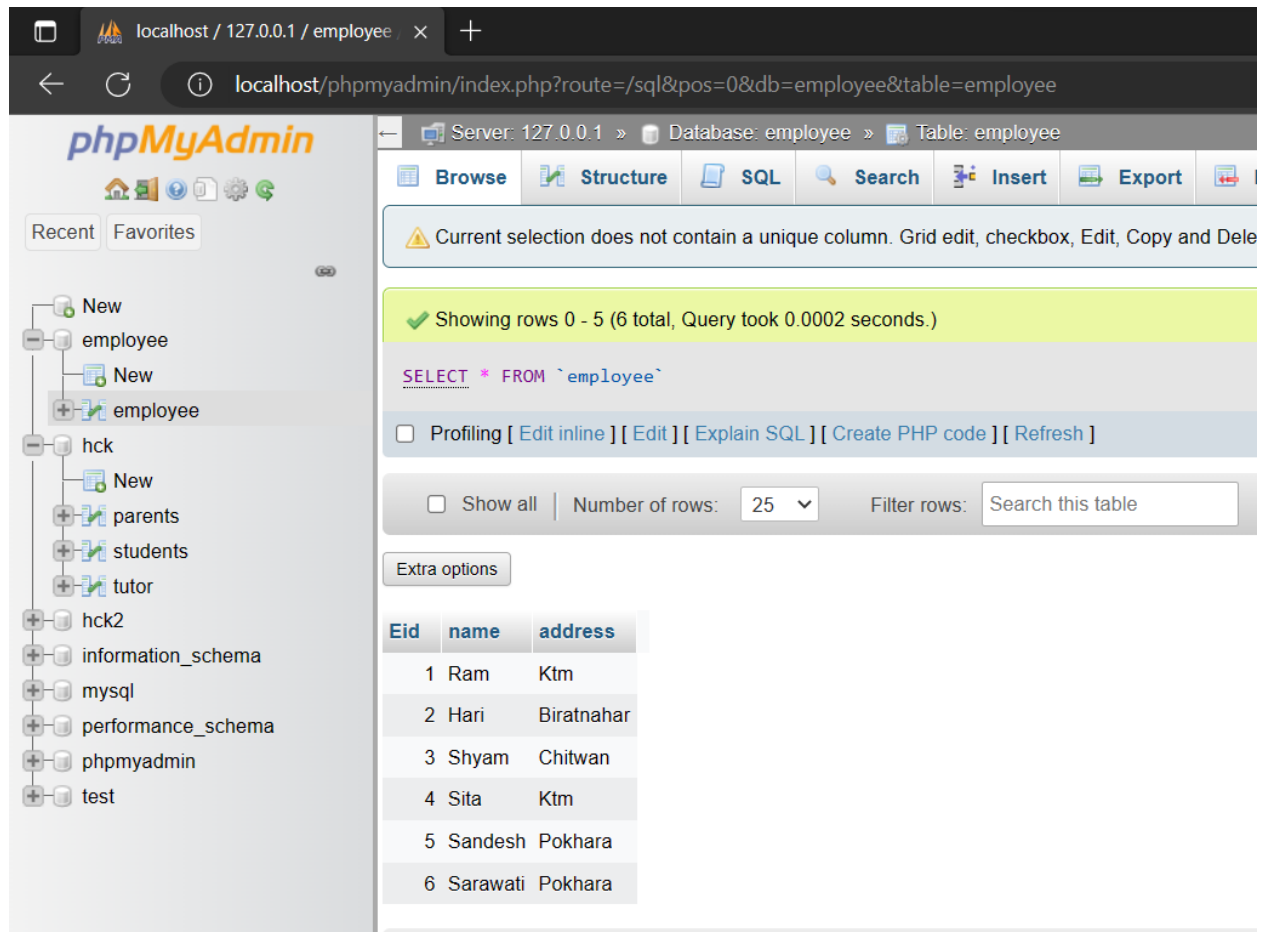
Number of rows: 25 | Filter rows: Search this table

Extra options

| Eid | name | address | Esalary |
|-----|----------|------------|---------|
| 1 | Ram | Ktm | NULL |
| 2 | Hari | Biratnagar | NULL |
| 3 | Shyam | Chitwan | NULL |
| 4 | Sita | Ktm | NULL |
| 5 | Sandesh | Pokhara | NULL |
| 6 | Sarawati | Pokhara | NULL |

i) After that, delete Esalary field.

Alter table Employee drop Esalary;

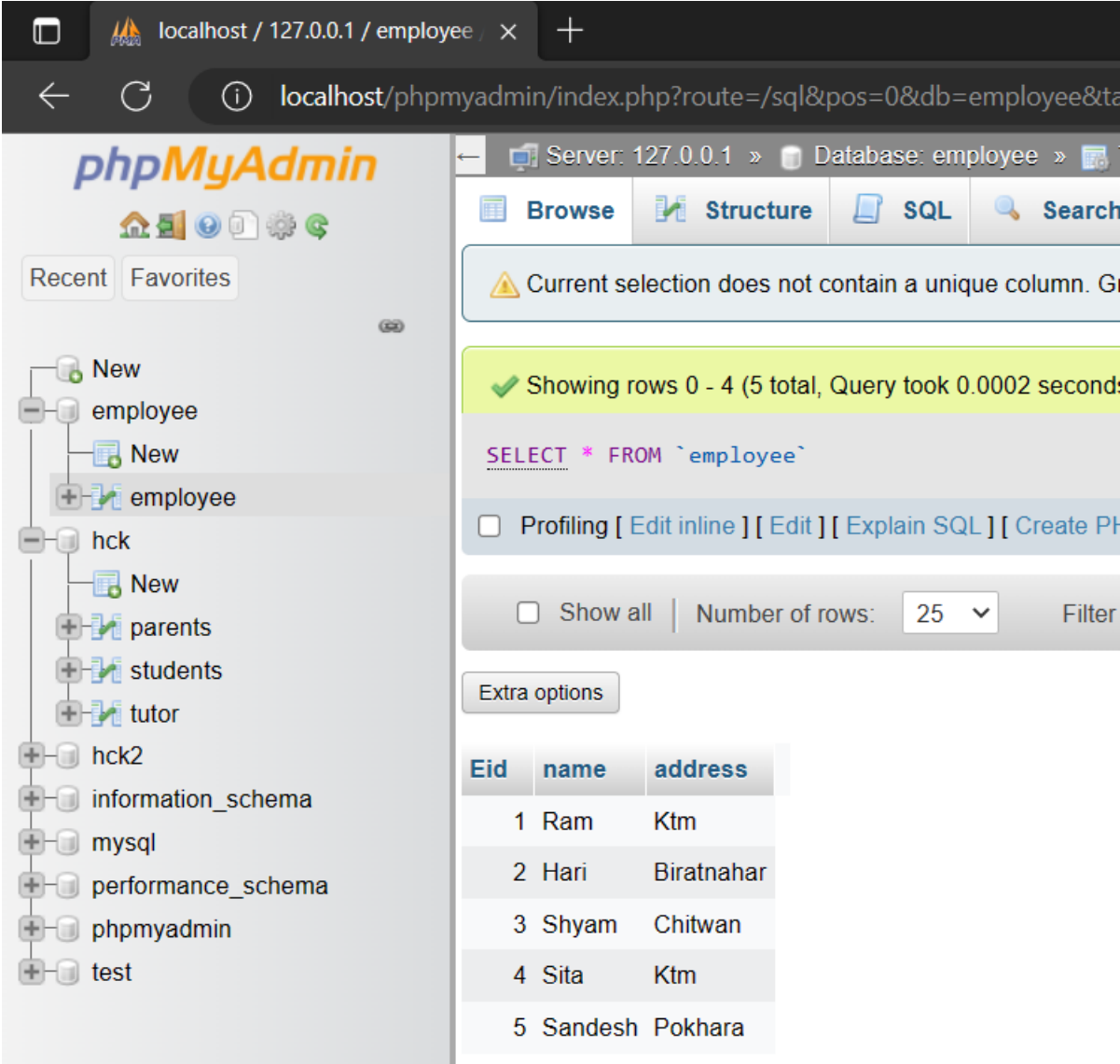


The screenshot shows the phpMyAdmin interface for a local database. The left sidebar lists databases: New, employee, New, employee, hck, New, parents, students, tutor, hck2, information_schema, mysql, performance_schema, phpmyadmin, and test. The main area displays the 'employee' table with the following data:

| Eid | name | address |
|-----|----------|------------|
| 1 | Ram | Ktm |
| 2 | Hari | Biratnagar |
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |
| 5 | Sandesh | Pokhara |
| 6 | Sarawati | Pokhara |

The interface also shows a SQL query: `SELECT * FROM `employee`` and a message: "Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)".

- j) Delete all the records of Eid 6.
Delete form Employee where Eid=6;

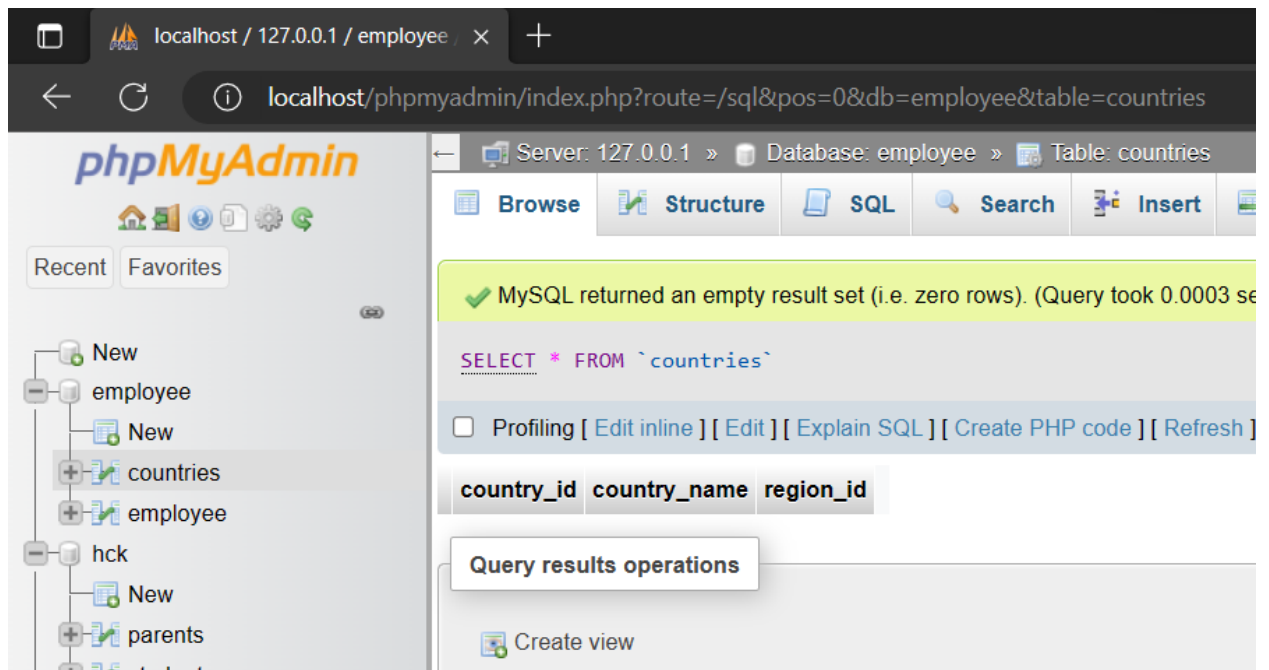


The screenshot shows the phpMyAdmin web interface in a browser. The address bar indicates the URL is `localhost/phpmyadmin/index.php?route=/sql&pos=0&db=employee&ta`. The interface is for the 'employee' database on server '127.0.0.1'. The left sidebar shows a tree view of databases, with 'employee' selected. The main panel shows the 'Structure' tab for the 'employee' table. A message states: 'Current selection does not contain a unique column. G'. Below this, a green bar indicates 'Showing rows 0 - 4 (5 total, Query took 0.0002 second)'. The SQL query entered is `SELECT * FROM `employee``. Below the query, there are options for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', and 'Create Ph'. At the bottom, there is a 'Show all' checkbox, a 'Number of rows' dropdown set to '25', and a 'Filter' button. An 'Extra options' button is also present. The results table shows 5 rows of data:

| Eid | name | address |
|-----|---------|------------|
| 1 | Ram | Ktm |
| 2 | Hari | Biratnagar |
| 3 | Shyam | Chitwan |
| 4 | Sita | Ktm |
| 5 | Sandesh | Pokhara |

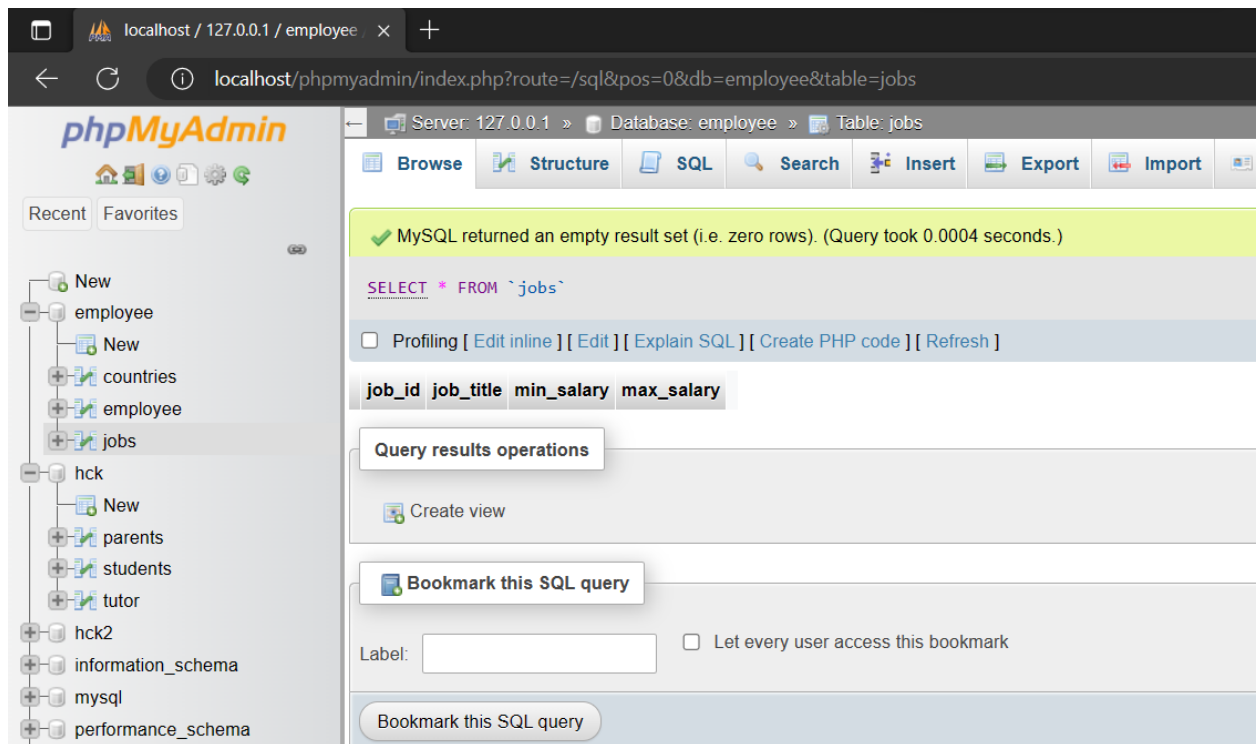
2. Write a SQL statement to create a table “**countries**” including columns `country_id`, `country_name` and `region_id` and make sure that the column `country_id` will be unique and store an auto incremented value.

```
create table countries(country_id int, country_name varchar(20),  
region_id int, primary key(country_id));
```



3. Write a SQL statement to create a table named **Jobs** including columns **job_id**, **job_title**, **min_salary** and **max_salary**, and make sure that, the default value for **job_title** is blank and **min_salary** is 8000 and **max_salary** is NULL will be entered automatically at the time of insertion if no value assigned for the specified columns.

create table jobs(job_id int, job_title varchar(20) default ' ',min_salary float default 8000, max_salary float default NULL);

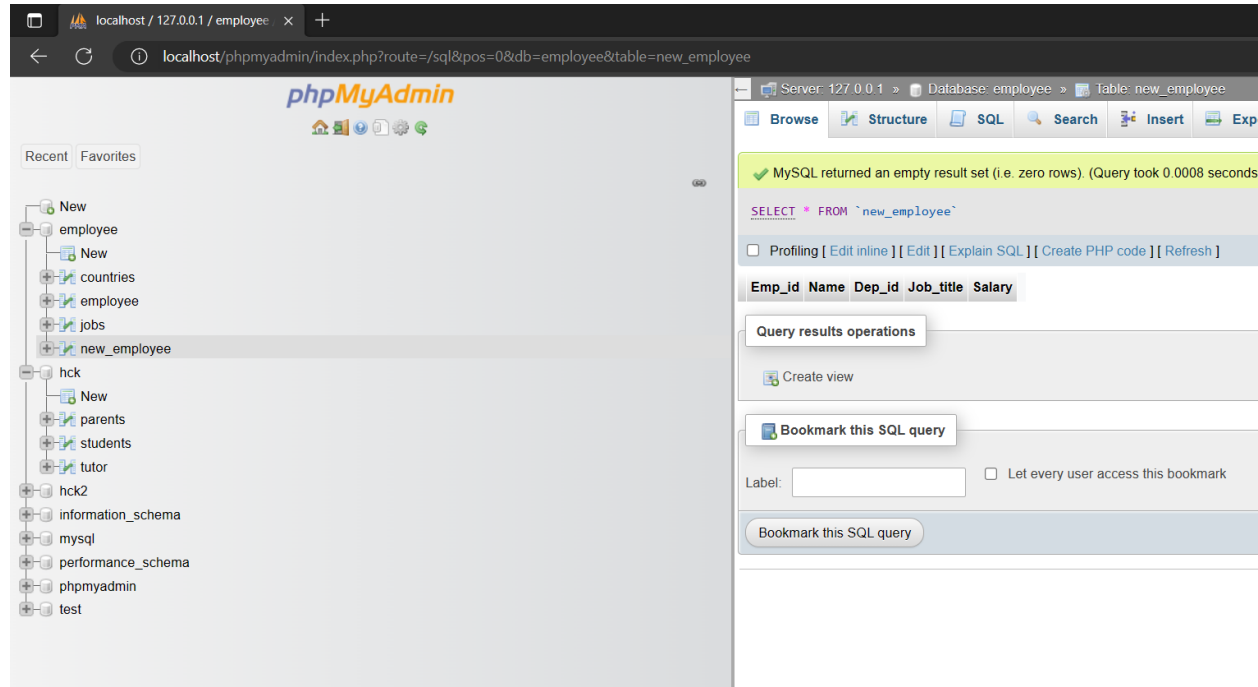


4. On the basis of following table answer the question below:

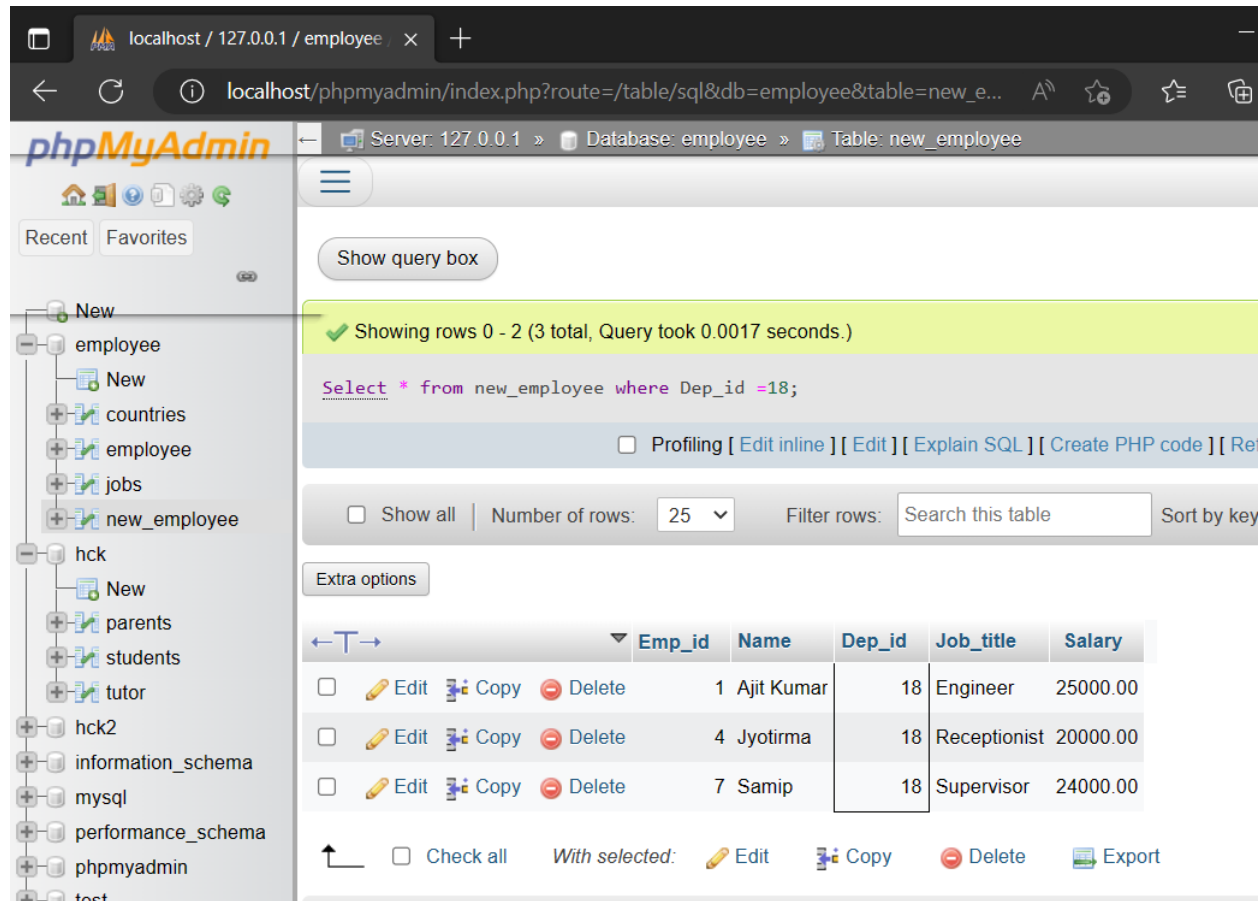
| Emp_id | Name | Dep_id | Job_title | Salary |
|--------|-------------|--------|--------------|----------|
| 1 | Ajit Kumar | 18 | Engineer | 25000.00 |
| 2 | Ujjwal | 5 | Programmer | 32000.00 |
| 3 | Ram Prashad | 5 | Supervisor | 23000.00 |
| 4 | Jyotirma | 18 | Receptionist | 20000.00 |
| 5 | Kanchan | 5 | Programmer | 21000.00 |
| 6 | Daya | 3 | Manager | 35000.00 |
| 7 | Samip | 18 | Supervisor | 24000.00 |

- a) Write SQL statement for Emp_id using not null auto_increment.
 CREATE TABLE new_employee(
 Emp_id INT NOT NULL AUTO_INCREMENT,
 Name VARCHAR(50) NOT NULL,
 Dep_id INT NOT NULL,

Job_title VARCHAR(50) NOT NULL,
Salary DECIMAL(10, 2) NOT NULL,
PRIMARY KEY (Emp_id)
);



- b) Display all the records from field Dep_id 18.
Select * from table_name where dep_id =18



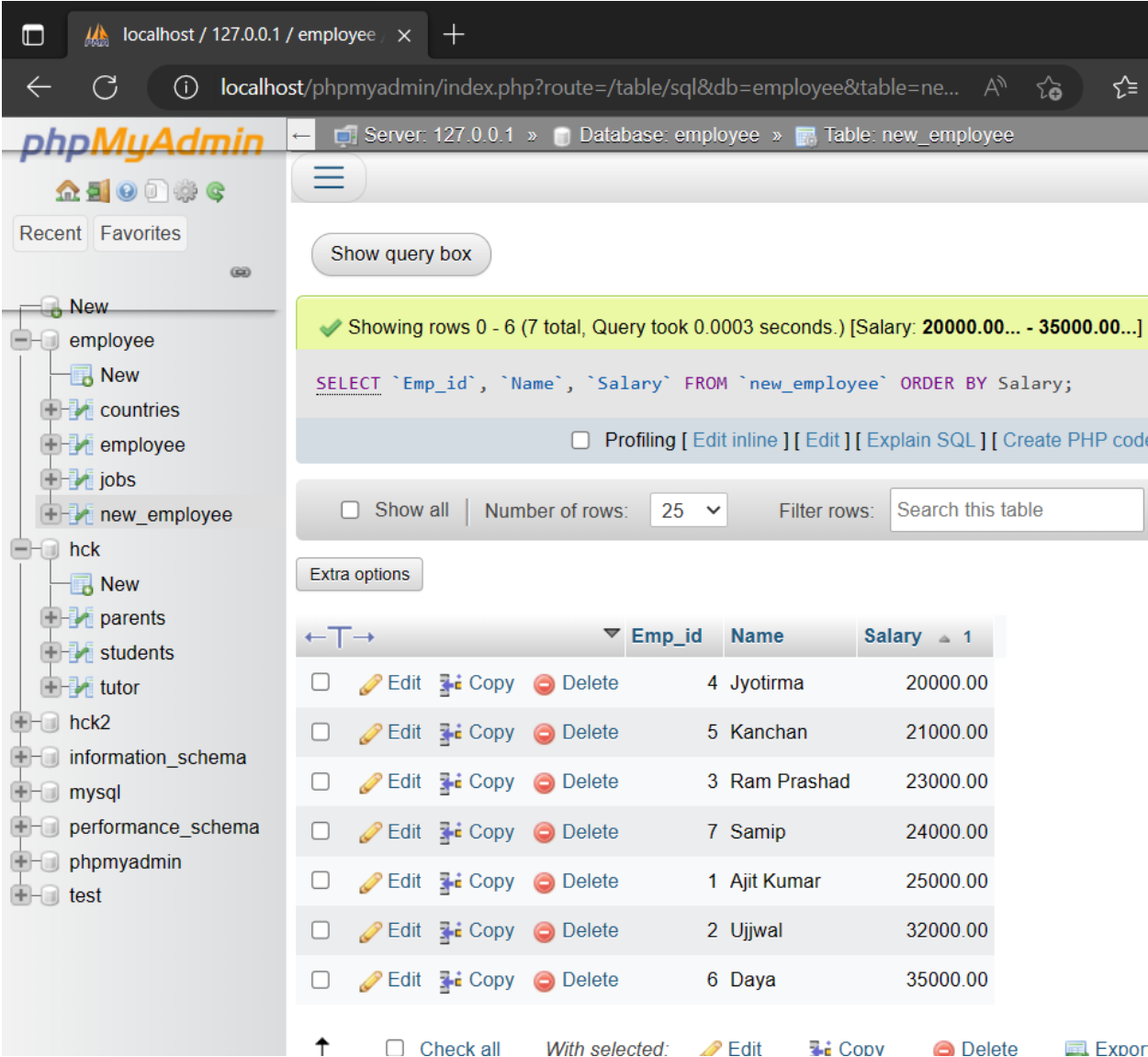
The screenshot shows the phpMyAdmin interface in a web browser. The address bar indicates the URL is `localhost/phpmyadmin/index.php?route=/table/sql&db=employee&table=new_e...`. The left sidebar shows a database structure with 'employee' and 'new_employee' tables. The main panel displays a query result for the 'new_employee' table. The query is `Select * from new_employee where Dep_id =18;`. The result shows 3 rows of data. The status bar indicates 'Showing rows 0 - 2 (3 total, Query took 0.0017 seconds.)'. Below the query, there are options for 'Show all', 'Number of rows' (set to 25), 'Filter rows' (Search this table), and 'Sort by key'. The 'Extra options' section is also visible. The table data is as follows:

| | Emp_id | Name | Dep_id | Job_title | Salary |
|---|--------|------------|--------|--------------|----------|
| <input type="checkbox"/> Edit Copy Delete | 1 | Ajit Kumar | 18 | Engineer | 25000.00 |
| <input type="checkbox"/> Edit Copy Delete | 4 | Jyotirma | 18 | Receptionist | 20000.00 |
| <input type="checkbox"/> Edit Copy Delete | 7 | Samip | 18 | Supervisor | 24000.00 |

At the bottom, there are options for 'Check all', 'With selected', 'Edit', 'Copy', 'Delete', and 'Export'.

- c) Display Emp_id, Name and Salary of all employee's in ascending order of Salary.

Select * from Employee order by salary;



The screenshot shows the phpMyAdmin interface for a local MySQL server. The database 'employee' is selected, and the table 'new_employee' is displayed. The table contains 7 records, sorted by salary in descending order. The interface includes a sidebar with a database tree, a top navigation bar, and a main content area with a query box and table view.

Database: employee » Table: new_employee

Show query box

Showing rows 0 - 6 (7 total, Query took 0.0003 seconds.) [Salary: 20000.00... - 35000.00...]

```
SELECT `Emp_id`, `Name`, `Salary` FROM `new_employee` ORDER BY Salary;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

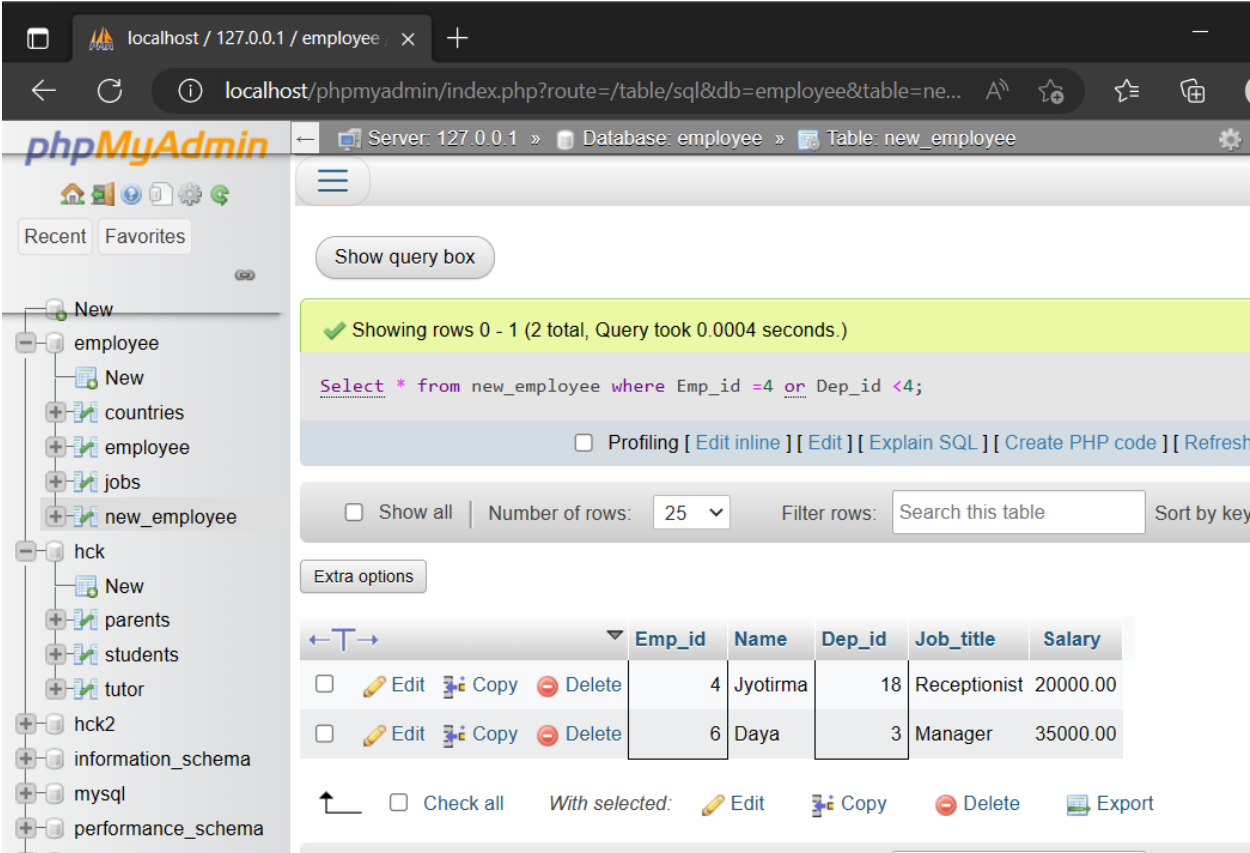
Extra options

| | Emp_id | Name | Salary |
|---|--------|-------------|----------|
| <input type="checkbox"/> Edit Copy Delete | 4 | Jyotirma | 20000.00 |
| <input type="checkbox"/> Edit Copy Delete | 5 | Kanchan | 21000.00 |
| <input type="checkbox"/> Edit Copy Delete | 3 | Ram Prashad | 23000.00 |
| <input type="checkbox"/> Edit Copy Delete | 7 | Samip | 24000.00 |
| <input type="checkbox"/> Edit Copy Delete | 1 | Ajit Kumar | 25000.00 |
| <input type="checkbox"/> Edit Copy Delete | 2 | Ujjwal | 32000.00 |
| <input type="checkbox"/> Edit Copy Delete | 6 | Daya | 35000.00 |

↑ ☐ Check all With selected: Edit Copy Delete Export

d) Display all the records where Emp_id is less than or equal to 4.

Select * from Employee where id =4 or id <4;



The screenshot shows the phpMyAdmin web interface. The browser address bar indicates the URL is localhost/phpmyadmin/index.php?route=/table/sql&db=employee&table=new_employee. The interface shows the 'new_employee' table selected in the left sidebar. The main area displays a query result for the query: `Select * from new_employee where Emp_id =4 or Dep_id <4;`. The result shows 2 rows:

| | Emp_id | Name | Dep_id | Job_title | Salary |
|--------------------------|--------|----------|--------|--------------|----------|
| <input type="checkbox"/> | 4 | Jyotirma | 18 | Receptionist | 20000.00 |
| <input type="checkbox"/> | 6 | Daya | 3 | Manager | 35000.00 |

Below the table, there are options to 'Check all', 'With selected', 'Edit', 'Copy', 'Delete', and 'Export'.

- e) Display minimum, maximum, average, total sum salary from above table respectively.

select max(salary) from emp;

The screenshot shows the phpMyAdmin interface in a web browser. The address bar indicates the URL is `localhost/phpmyadmin/index.php?route=/table/sql&db=emp`. The left sidebar shows a database tree with 'employee' selected. The main panel displays a SQL query: `select max(Salary) from new_employee;`. A message above the query states: 'Current selection does not contain a unique column. Some features are not available.' Below the query, a green status bar indicates: 'Showing rows 0 - 0 (1 total, Query took 0.0018 sec)'. The result of the query is shown in a table with one row: `max(Salary)` with the value `35000.00`. The interface also includes a 'Show query box' button, a 'Profiling' checkbox, and a 'Number of rows' dropdown set to 25.

`select min(salary) from emp;`

The screenshot shows the phpMyAdmin interface displaying the result of the query `select min(salary) from emp;`. The result is shown in a table with one row: `min(Salary)` with the value `20000.00`. The interface includes an 'Extra options' button.

`select avg(salary) from emp;`

The screenshot shows the phpMyAdmin interface displaying the result of the query `select avg(salary) from emp;`. The result is shown in a table with one row: `avg(Salary)` with the value `25714.285714`. The interface includes an 'Extra options' button.

`select sum(salary) from emp;`

sum(Salary)

180000.00

- f) Change the column name Name as Emp_Fname.

Alter table Employee rename column name to emp_name;

| | Emp_id | Emp_Fname | Dep_id | Job_title | Salary |
|---|--------|-------------|--------|--------------|----------|
| <input type="checkbox"/> Edit Copy Delete | 1 | Ajit Kumar | 18 | Engineer | 25000.00 |
| <input type="checkbox"/> Edit Copy Delete | 2 | Ujjwal | 5 | Programmer | 32000.00 |
| <input type="checkbox"/> Edit Copy Delete | 3 | Ram Prashad | 5 | Supervisor | 23000.00 |
| <input type="checkbox"/> Edit Copy Delete | 4 | Jyotirma | 18 | Receptionist | 20000.00 |
| <input type="checkbox"/> Edit Copy Delete | 5 | Kanchan | 5 | Programmer | 21000.00 |
| <input type="checkbox"/> Edit Copy Delete | 6 | Daya | 3 | Manager | 35000.00 |
| <input type="checkbox"/> Edit Copy Delete | 7 | Samip | 18 | Supervisor | 24000.00 |

- g) Count inserted row using SQL statement.

Select count(salary) from emp;

count(Salary)

7

- h) Update Emp_id 5 salary to 28000.00.

Update emp

Set salary=28000

Where id=1;

| | Emp_id | Emp_Fname | Dep_id | Job_title | Salary |
|---|--------|-------------|--------|--------------|----------|
| <input type="checkbox"/> Edit Copy Delete | 1 | Ajit Kumar | 18 | Engineer | 28000.00 |
| <input type="checkbox"/> Edit Copy Delete | 2 | Ujjwal | 5 | Programmer | 32000.00 |
| <input type="checkbox"/> Edit Copy Delete | 3 | Ram Prashad | 5 | Supervisor | 23000.00 |
| <input type="checkbox"/> Edit Copy Delete | 4 | Jyotirma | 18 | Receptionist | 20000.00 |
| <input type="checkbox"/> Edit Copy Delete | 5 | Kanchan | 5 | Programmer | 21000.00 |
| <input type="checkbox"/> Edit Copy Delete | 6 | Daya | 3 | Manager | 35000.00 |
| <input type="checkbox"/> Edit Copy Delete | 7 | Samip | 18 | Supervisor | 24000.00 |






















- i) Increase all the employee's salary by five thousand named as New_salary and display all the records from table.

Alter table Employee rename column salary to new_salary;

Update Employee

Set new_salary =New_salary+5000

Where emp_id<10;

| <div><div><div></div><div></div><div></div></div></div> | | | | | | Emp_id | Emp_Fname | Dep_id | Job_title | new_salary | |
|---|---|------|---|------|---|--------|-----------|-------------|-----------|--------------|----------|
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 1 | Ajit Kumar | 18 | Engineer | 33000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 2 | Ujjwal | 5 | Programmer | 37000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 3 | Ram Prashad | 5 | Supervisor | 28000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 4 | Jyotirma | 18 | Receptionist | 25000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 5 | Kanchan | 5 | Programmer | 26000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 6 | Daya | 3 | Manager | 40000.00 |
| <input type="checkbox"/> |  | Edit |  | Copy |  | Delete | 7 | Samip | 18 | Supervisor | 29000.00 |