

20MCA134-ADVANCED DBMS LAB

LAB-QUESTIONS(Practice)

SUBMITTED BY,

VIVIN V. ABRAHAM

R MCA-2020-S2

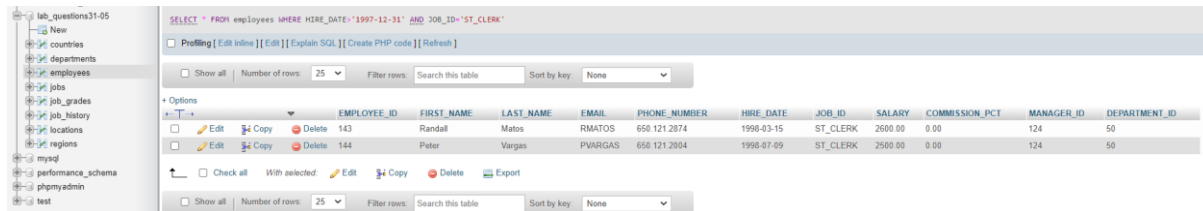
ROLL NO : 42

SUBMITTED TO,

LISHA MISS

1) The HR department needs to find data for all of the clerks who were hired after the year 1997.

```
SELECT * FROM employees WHERE HIRE_DATE > '1997-12-31' AND JOB_ID = 'ST_CLERK'
```

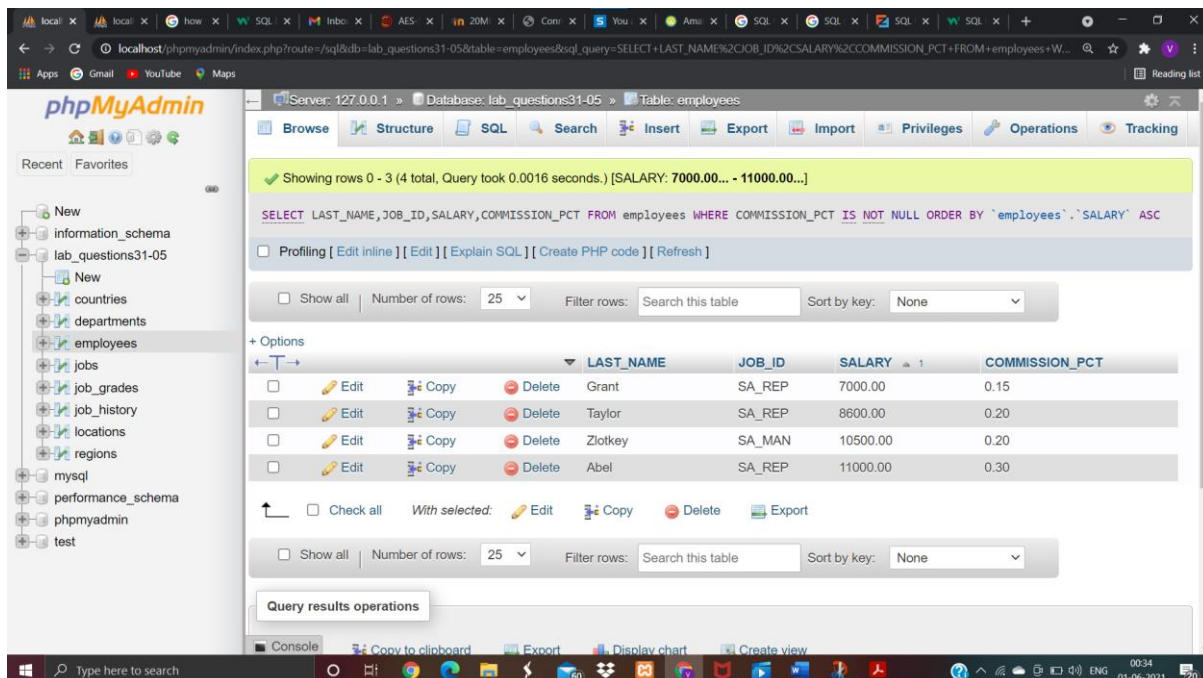


The screenshot shows the phpMyAdmin interface with the 'employees' table selected. The SQL query is entered in the top bar, and the results are displayed in a table below. The table has columns for employee details, including ID, name, email, phone, hire date, job ID, salary, commission percentage, manager ID, and department ID. Two rows are shown, both for ST_CLERK jobs.

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|---------|--------------|------------|----------|---------|----------------|------------|---------------|
| 143 | Randall | Matos | RMATOS | 650.121.2874 | 1998-03-15 | ST_CLERK | 2600.00 | 0.00 | 124 | 50 |
| 144 | Peter | Vargas | PVARGAS | 650.121.2004 | 1998-07-09 | ST_CLERK | 2500.00 | 0.00 | 124 | 50 |

2) The HR department needs a report of employees who earn commission. Show the last name, job, salary, and commission of those employees. Sort the data by salary in descending order.

```
SELECT LAST_NAME, JOB_ID, SALARY, COMMISSION_PCT FROM employees WHERE COMMISSION_PCT IS NOT NULL ORDER BY SALARY DESC
```



The screenshot shows the phpMyAdmin interface with the 'employees' table selected. The SQL query is entered in the top bar, and the results are displayed in a table below. The table has columns for last name, job ID, salary, and commission percentage. Four rows are shown, sorted by salary in descending order.

| LAST_NAME | JOB_ID | SALARY | COMMISSION_PCT |
|-----------|--------|----------|----------------|
| Grant | SA_REP | 7000.00 | 0.15 |
| Taylor | SA_REP | 8600.00 | 0.20 |
| Zlotkey | SA_MAN | 10500.00 | 0.20 |
| Abel | SA_REP | 11000.00 | 0.30 |

3) For budgeting purposes, the HR department needs a report on projected raises. The report should display those employees who have no commission, but who have a 10% raise in salary (round off the salaries).

```
SELECT LAST_NAME, SALARY, COMMISSION_PCT, ROUND(SALARY+(SALARY*.10), 2) "NEW SALARY" FROM employees WHERE COMMISSION_PCT IS NULL.
```

| LAST_NAME | SALARY | COMMISSION_PCT | NEW SALARY |
|-----------|----------|----------------|------------|
| King | 24000.00 | NULL | 26400.00 |
| Kochhar | 17000.00 | NULL | 18700.00 |
| De Haan | 17000.00 | NULL | 18700.00 |
| Hunold | 9000.00 | NULL | 9900.00 |
| Ernst | 6000.00 | NULL | 6600.00 |
| Lorentz | 4200.00 | NULL | 4620.00 |
| Mourgos | 5800.00 | NULL | 6380.00 |
| Rajs | 3500.00 | NULL | 3850.00 |
| Davies | 3100.00 | NULL | 3410.00 |
| Matos | 2600.00 | NULL | 2860.00 |
| Vargas | 2500.00 | NULL | 2750.00 |
| Whalen | 4400.00 | NULL | 4840.00 |
| Hartstein | 13000.00 | NULL | 14300.00 |
| Fay | 9000.00 | NULL | 9900.00 |
| Higgins | 12000.00 | NULL | 13200.00 |
| Gietz | 8300.00 | NULL | 9130.00 |

4) For budgeting purposes, the HR department needs a report on projected raises. The report should display those employees who do not get a commission but who have a 10% raise in salary (round off the salaries).

```
SELECT last_name, TIMESTAMPDIFF(YEAR, hire_date, SYSDATE()) AS YEARS, TIMESTAMPDIFF(MONTH, hire_date, SYSDATE()) AS MONTHS FROM employees ORDER BY years DESC, MONTHS desc
```

The screenshot shows the phpMyAdmin interface for the 'lab_questions31-05' database. The 'employees' table is selected. The SQL query editor contains the following query:

```
SELECT last_name, TIMESTAMPDIFF(YEAR, hire_date,SYSDATE()) AS YEARS, TIMESTAMPDIFF(MONTH, hire_date,SYSDATE()) AS MONTHS FROM employees ORDER BY years DESC, MONTHS desc
```

The query results show 12 rows of employee data, sorted by years in descending order, then by months in descending order.

| | last_name | YEARS | MONTHS |
|--------------------------|-----------|-------|--------|
| <input type="checkbox"/> | Zlotkey | 121 | 1456 |
| <input type="checkbox"/> | King | 33 | 407 |
| <input type="checkbox"/> | Whalen | 33 | 404 |
| <input type="checkbox"/> | Kochhar | 31 | 380 |
| <input type="checkbox"/> | Hunold | 31 | 376 |
| <input type="checkbox"/> | Ernst | 30 | 360 |
| <input type="checkbox"/> | De Haan | 28 | 340 |
| <input type="checkbox"/> | Gietz | 26 | 323 |
| <input type="checkbox"/> | Higgins | 26 | 323 |
| <input type="checkbox"/> | Rajs | 25 | 307 |
| <input type="checkbox"/> | Hartstein | 25 | 303 |

5) Show those employees who have a last name starting with the letters “J,” “K,” “L,” or “M.”

```
SELECT last_name FROM employees WHERE SUBSTR(last_name, 1,1) IN ('J', 'K', 'L', 'M')
```

The screenshot shows the phpMyAdmin interface for the 'lab_questions31-05' database. The 'employees' table is selected. The SQL query editor contains the following query:

```
SELECT last_name FROM employees WHERE SUBSTR(last_name, 1,1) IN ('J', 'K', 'L', 'M')
```

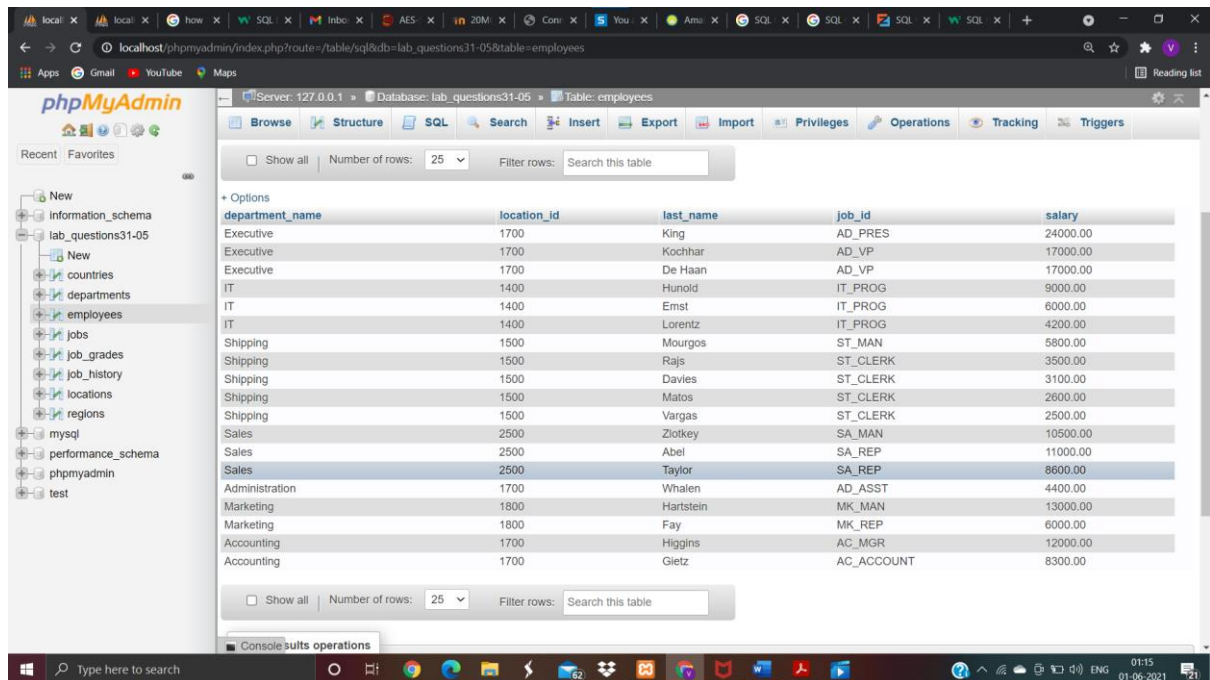
The query results show 5 rows of employee data, filtered by last name starting with J, K, L, or M.

| | last_name |
|--------------------------|-----------|
| <input type="checkbox"/> | King |
| <input type="checkbox"/> | Kochhar |
| <input type="checkbox"/> | Lorentz |
| <input type="checkbox"/> | Mourgos |
| <input type="checkbox"/> | Matos |

6) Create a report that displays the department name, location ID, name, job title, and salary of those employees who work in a specific location. Prompt the user for the location.

a) Enter 1800 for location_id when prompted.

```
SELECT d.department_name, d.location_id, e.last_name, e.job_id, e.salary FROM employees e, departments d WHERE e.department_id = d.department_id AND d.location_id = location_id
```

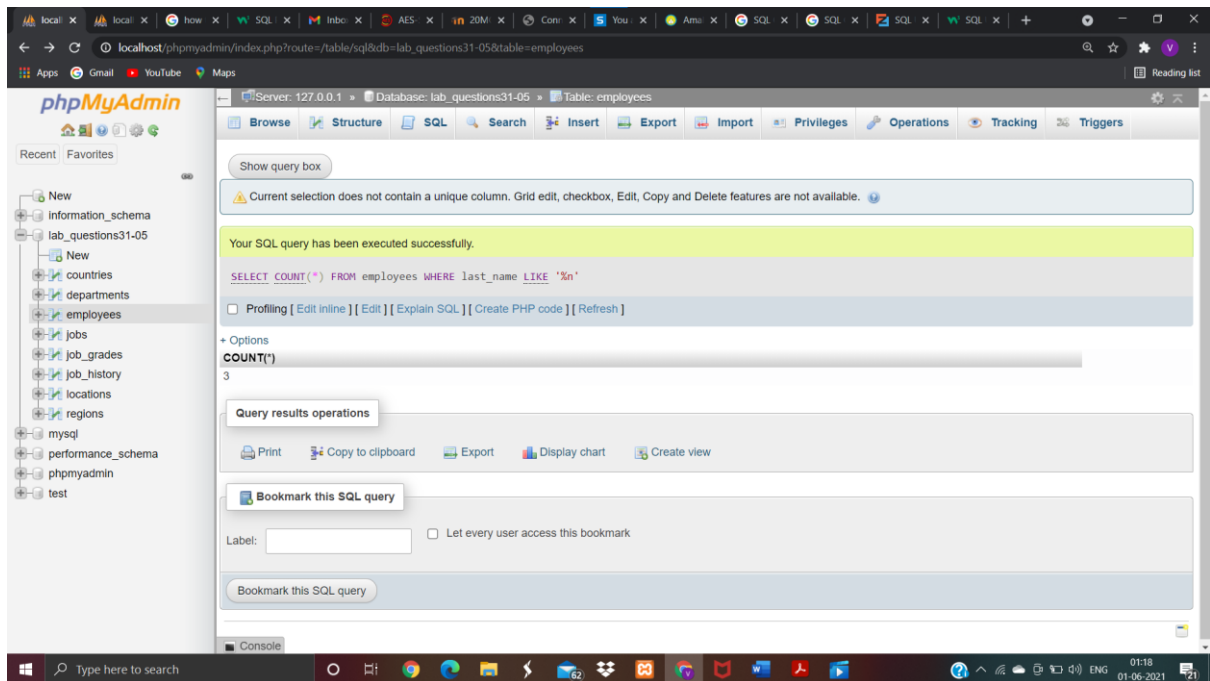


The screenshot shows the phpMyAdmin interface for a database named 'lab_questions31-05'. The 'employees' table is selected, and its data is displayed in a table format. The table has five columns: department_name, location_id, last_name, job_id, and salary. The data is filtered to show 25 rows. The table is sorted by department_name in ascending order.

| department_name | location_id | last_name | job_id | salary |
|-----------------|-------------|-----------|------------|----------|
| Executive | 1700 | King | AD_PRES | 24000.00 |
| Executive | 1700 | Kochhar | AD_VP | 17000.00 |
| Executive | 1700 | De Haan | AD_VP | 17000.00 |
| IT | 1400 | Hunold | IT_PROG | 9000.00 |
| IT | 1400 | Ernst | IT_PROG | 6000.00 |
| IT | 1400 | Lorentz | IT_PROG | 4200.00 |
| Shipping | 1500 | Mourgos | ST_MAN | 5800.00 |
| Shipping | 1500 | Rajs | ST_CLERK | 3500.00 |
| Shipping | 1500 | Davies | ST_CLERK | 3100.00 |
| Shipping | 1500 | Matos | ST_CLERK | 2600.00 |
| Shipping | 1500 | Vargas | ST_CLERK | 2500.00 |
| Sales | 2500 | Zlotkey | SA_MAN | 10500.00 |
| Sales | 2500 | Abel | SA_REP | 11000.00 |
| Sales | 2500 | Taylor | SA_REP | 8600.00 |
| Administration | 1700 | Whalen | AD_ASST | 4400.00 |
| Marketing | 1800 | Hartstein | MK_MAN | 13000.00 |
| Marketing | 1800 | Fay | MK_REP | 6000.00 |
| Accounting | 1700 | Higgins | AC_MGR | 12000.00 |
| Accounting | 1700 | Gietz | AC_ACCOUNT | 8300.00 |

7. Find the number of employees who have a last name that ends with the letter “n.” Create two possible solutions.

```
SELECT COUNT(*) FROM employees WHERE last_name LIKE '%n'
```



```
SELECT COUNT(*) FROM employees WHERE SUBSTR(last_name, -1) = 'n'
```

