



# Assignment

Assignment No. – 02

Submission date- 13 February, 2022

Course Title- DBMS (Lab)

Course Code: CSE-2424

Submitted to-

**Mr. Mohammad Aman Ullah**

**Assistant Professor**

01815641524

[ullah047@yahoo.com](mailto:ullah047@yahoo.com), [aman\\_cse@iiuc.ac.bd](mailto:aman_cse@iiuc.ac.bd)

Submitted by-

**MD. SOROWAR MAHABUB RABBY**

Matric ID: **C201032**, Section: **4AM**, Semester: **4<sup>th</sup>**

Department of CSE (Computer Science and Engineering), IIUC

Cell: 01834756433, 01521564157, [c201032@ugrad.iiuc.ac.bd](mailto:c201032@ugrad.iiuc.ac.bd)

1. Because of budget issues, the HR department needs a report that displays the last name and salary of employees earning more than \$12,000. Place your SQL statement in a text file named lab\_02\_01.sql. Run your query.

```
SELECT last_name, salary
FROM employees
WHERE salary > 12000;
```

| LAST_NAME | SALARY |
|-----------|--------|
| King      | 24000  |
| Kochhar   | 17000  |
| De Haan   | 17000  |
| Russell   | 14000  |
| Partners  | 13500  |
| Hartstein | 13000  |

6 rows returned

2. Create a report that displays the last name and department number for employee number 176.

```
SELECT last_name, department_id
FROM employees
WHERE employee_id = 176;
```

| LAST_NAME | DEPARTMENT_ID |
|-----------|---------------|
| Taylor    | 80            |

1 rows returned

3. The HR departments needs to find high-salary and low-salary employees. Modify lab\_02\_01.sql to display the last name and salary for all employees whose salary is not in the range of \$5,000 to \$12,000. Place your SQL statement in a text file named lab\_02\_03.sql.

```
SELECT last_name, salary
FROM employees
WHERE salary NOT BETWEEN 5000 AND 12000;
```

| LAST_NAME  | SALARY |
|--|--------|
| King   | 24000  |
| Kochhar  | 17000  |
| De Haan  | 17000  |
| Austin   | 4800   |
| Pataballa  | 4800   |
| Lorentz  | 4200   |
| Khoo   | 3100   |
| Baida  | 2900   |
| Tobias   | 2800   |
| Himuro   | 2600   |
| More than 10 rows available. Increase rows selector to view more rows. |        |

10 rows returned

- 4. Create a report to display the last name, job ID, and start date for the employees with the last names of Matos and Taylor. Order the query in ascending order by start date.**

```
SELECT last_name, job_id, hire_date
FROM employees
WHERE last_name IN ('Matos', 'Taylor') ORDER BY hire_date;
```

| LAST_NAME | JOB_ID   | HIRE_DATE |
|-----------|----------|-----------|
| Taylor    | SH_CLERK | 24-JAN-98 |
| Matos     | ST_CLERK | 15-MAR-98 |
| Taylor    | SA_REP   | 24-MAR-98 |

3 rows returned

- 5. Display the last name and department number of all employees in departments 20 or 50 in ascending alphabetical order by name.**

```
SELECT last_name, department_id
FROM employees
WHERE department_id IN (20, 50) ORDER BY last_name ASC;
```

| LAST_NAME | DEPARTMENT_ID |
|-----------|---------------|
| Atkinson  | 50            |
| Bell      | 50            |

|  |    |
|--|----|
| Bissot   | 50 |
| Bull   | 50 |
| Cabrio   | 50 |
| Chung  | 50 |
| Davies   | 50 |
| Dellinger  | 50 |
| Dilly  | 50 |
| Everett  | 50 |
| More than 10 rows available. Increase rows selector to view more rows. |    |

10 rows returned

- 6. Modify lab\_02\_03.sql to list the last name and salary of employees who earn between \$5,000 and \$12,000 and are in department 20 or 50. Label the columns Employee and Monthly Salary, respectively. Resave lab\_02\_03.sql as lab\_02\_06.sql. Run the statement in lab\_02\_06.sql.**

```
SELECT last_name AS "Employee", salary AS "Monthly Salary"
FROM employees
WHERE salary BETWEEN 5000 AND 12000
AND department_id IN (20, 50);
```

| Employee | Monthly Salary |
|----------|----------------|
| Weiss    | 8000           |
| Fripp    | 8200           |
| Kaufling | 7900           |
| Vollman  | 6500           |
| Mourgos  | 5800           |
| Fay      | 6000           |

6 rows returned

- 7. The HR department needs a report that displays the last name and hire date for all employees who were hired in 1994.**

```
SELECT last_name, hire_date
FROM employees
WHERE hire_date LIKE '%94';
```

| LAST_NAME | HIRE_DATE |
|-----------|-----------|
| Greenberg | 17-AUG-94 |
| Faviet    | 16-AUG-94 |
| Raphaely  | 07-DEC-94 |
| Mavris    | 07-JUN-94 |
| Baer      | 07-JUN-94 |
| Higgins   | 07-JUN-94 |
| Gietz     | 07-JUN-94 |

7 rows returned

- 8. Create a report to display the last name and job title of all employees who do not have a manager.**

```
SELECT last_name, job_id
FROM employees
WHERE manager_id IS NULL;
```

| LAST_NAME | JOB_ID  |
|-----------|---------|
| King      | AD_PRES |

1 rows returned

- 9. Display the last name, salary, and commission for all employees who earn commissions. Sort data in descending order of salary and commissions.**

```
SELECT last_name, salary, commission_pct
FROM employees
WHERE commission_pct IS NOT NULL
ORDER BY salary DESC, commission_pct DESC;
```

| LAST_NAME | SALARY | COMMISSION_PCT |
|-----------|--------|----------------|
| Russell   | 14000  | .4             |
| Partners  | 13500  | .3             |
| Errazuriz | 12000  | .3             |
| Ozer      | 11500  | .25            |
| Cambrault | 11000  | .3             |
| Abel      | 11000  | .3             |

|  |       |     |
|--|-------|-----|
| Vishney  | 10500 | .25 |
| Zlotkey  | 10500 | .2  |
| King   | 10000 | .35 |
| Tucker   | 10000 | .3  |
| More than 10 rows available. Increase rows selector to view more rows. |       |     |

10 rows returned

**10. Members of the HR department want to have more flexibility with the queries that you are writing. They would like a report that displays the last name and salary of employees who earn more than an amount that the user specifies after a prompt. (You can use the query created in practice exercise 1 and modify it.) Save this query to a file named lab\_02\_10.sql.**

```
SELECT last_name, salary
FROM employees
WHERE salary > :sal_amt;
```

Here, sal\_amt= 10200

| LAST_NAME  | SALARY |
|--|--------|
| King   | 24000  |
| Kochhar  | 17000  |
| De Haan  | 17000  |
| Greenberg  | 12000  |
| Raphaely   | 11000  |
| Russell  | 14000  |
| Partners   | 13500  |
| Errazuriz  | 12000  |
| Cambrault  | 11000  |
| Zlotkey  | 10500  |
| More than 10 rows available. Increase rows selector to view more rows. |        |

10 rows returned

**11. The HR department wants to run reports based on a manager. Create a query that prompts the user for a manager ID and generates the employee ID, last name, salary, and department for that manager's employees. The HR department wants the ability to sort the report on a selected column. You can test the data with the following values:**

**manager ID = 103, sorted by employee last name**

**manager ID = 201, sorted by salary**

**manager ID = 124, sorted by employee ID**

```
SELECT employee_id, last_name, salary, department_id
FROM employees
WHERE manager_id = :mgr_num
ORDER BY :order_col;
```

**12. Display all employee last names in which the third letter of the name is a.**

```
SELECT last_name
FROM employees
WHERE last_name LIKE '__a%';
```

| LAST_NAME |
|-----------|
| Grant     |
| Grant     |
| Whalen    |

3 rows returned

**13. Display the last name of all employees who have both an a and an e in their last name.**

```
SELECT last_name
FROM employees
WHERE last_name LIKE '%a%'
AND last_name LIKE '%e%';
```

| LAST_NAME  |
|------------|
| Baer       |
| Bates      |
| Colmenares |
| Davies     |
| De Haan    |
| Faviet     |
| Fleur      |
| Gates      |
| Hartstein  |
| Markle     |

More than 10 rows available. Increase rows selector to view more rows.

10 rows returned

**14. Display the last name, job, and salary for all employees whose job is sales representative or stock clerk and whose salary is not equal to \$2,500, \$3,500, or \$7,000.**

```
SELECT last_name, job_id, salary
FROM employees
WHERE job_id IN ('SA_REP', 'ST_CLERK')
AND salary NOT IN (2500, 3500, 7000);
```

| LAST_NAME  | JOB_ID   | SALARY |
|--|----------|--------|
| Nayer  | ST_CLERK | 3200   |
| Mikkilineni  | ST_CLERK | 2700   |
| Landry   | ST_CLERK | 2400   |
| Markle   | ST_CLERK | 2200   |
| Bissot   | ST_CLERK | 3300   |
| Atkinson   | ST_CLERK | 2800   |
| Olson  | ST_CLERK | 2100   |
| Mallin   | ST_CLERK | 3300   |
| Rogers   | ST_CLERK | 2900   |
| Gee  | ST_CLERK | 2400   |
| More than 10 rows available. Increase rows selector to view more rows. |          |        |

10 rows returned

**15. Modify lab\_02\_06.sql to display the last name, salary, and commission for all employees whose commission amount is 20%. Resave lab\_02\_06.sql as lab\_02\_15.sql. Rerun the statement in lab\_02\_15.sql.**

```
SELECT last_name "Employee", salary "Monthly Salary",
commission_pct
FROM employees
WHERE commission_pct = .20;
```

| Employee  | Monthly Salary | COMMISSION_PCT |
|-----------|----------------|----------------|
| Zlotkey   | 10500          | .2             |
| Olsen     | 8000           | .2             |
| Cambrault | 7500           | .2             |



|            |       |    |
|------------|-------|----|
| Bloom      | 10000 | .2 |
| Fox        | 9600  | .2 |
| Taylor     | 8600  | .2 |
| Livingston | 8400  | .2 |

7 rows returned

Submitted by-

**MD. SOROWAR MAHABUB RABBY**

Matric ID: **C201032**, Section: **4AM**

Department of CSE (Computer Science and Engineering)