

EX.NO:6

DATE:11.09.2024

RESTRICTING AND SORTING DATA

Find the Solution for the following:

EMPLOYEES TABLE

NAME	NULL?	TYPE
Employee_id	Not null	Number(6)
First_Name		Varchar(20)
Last_Name	Not null	Varchar(25)
Email	Not null	Varchar(25)
Phone_Number		Varchar(20)
Hire_date	Not null	Date
Job_id	Not null	Varchar(10)
Salary		Number(8,2)
Commission_pct		Number(2,2)
Manager_id		Number(6)
Department_id		Number(4)

```
CREATE TABLE Employees (  
    Employee_id NUMBER(6) NOT NULL,  
    First_Name VARCHAR(20),  
    Last_Name VARCHAR(25) NOT NULL,  
    Email VARCHAR(25) NOT NULL,  
    Phone_Number VARCHAR(20),  
    Hire_date DATE NOT NULL,  
    Job_id VARCHAR(10) NOT NULL,  
    Salary NUMBER(8,2),  
    Commission_pct NUMBER(2,2),  
    Manager_id NUMBER(6),  
    Department_id NUMBER(4)  
);
```

EMPLOYEES

Table

Data

Indexes

Model

Constraints

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Statistics

UI Defaults

Triggers








Dependencies

SQL

Query

Count Rows

Insert Row

EDIT	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
	176	John	Doe	jdoe@example.com	555-555-5555	02/20/1998	SA_REP	15000	-	-	20
	177	Jane	Smith	jsmith@example.com	555-555-5556	04/25/1994	IT_PROG	9500	.15	100	50
	178	Michael	Brown	mbrown@example.com	555-555-5557	01/15/2000	HR_REP	8000	-	101	50
	179	Linda	Green	lgreen@example.com	555-555-5558	03/10/1995	FI_MGR	12000	.1	102	20
	180	Robert	White	rwhite@example.com	555-555-5559	06/07/2002	ST_CLERK	3000	-	103	50
	181	David	Johnson	djohnson@example.com	555-555-5560	08/22/1997	SA_REP	14000	.05	104	30
	182	Emily	Clark	eclark@example.com	555-555-5561	11/19/2003	IT_PROG	9000	-	105	40
											row(s) 1 - 7 of 7

Download

1. Create a query to display the last name and salary of employees earning more than 12000.

```
SELECT Last_Name, Salary
FROM Employees
WHERE Salary > 12000;
```

LAST_NAME	SALARY
Doe	15000
Johnson	14000

2 rows returned in 0.03 seconds

2. Create a query to display the employee last name and department number for employee number 176.

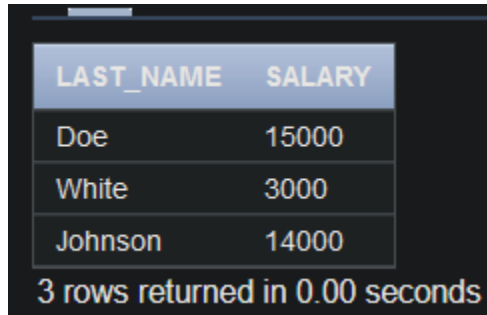
```
SELECT Last_Name, Department_id
FROM Employees
WHERE Employee_id = 176;
```

LAST_NAME	DEPARTMENT_ID
Doe	20

1 rows returned in 0.00 seconds

3. Create a query to display the last name and salary of employees whose salary is not in the range of 5000 and 12000. (hints: not between)

```
SELECT Last_Name, Salary
FROM Employees
WHERE Salary NOT BETWEEN 5000 AND 12000;
```



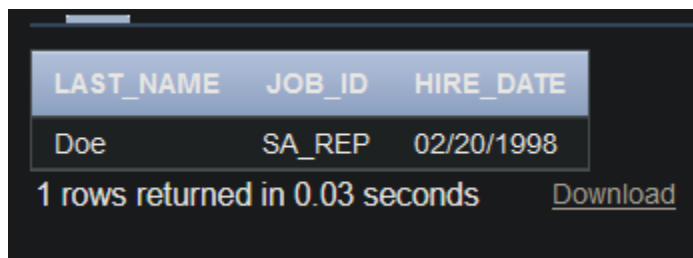
A screenshot of a SQL query result window. It displays a table with two columns: 'LAST_NAME' and 'SALARY'. The table contains three rows of data. Below the table, it states '3 rows returned in 0.00 seconds'.

LAST_NAME	SALARY
Doe	15000
White	3000
Johnson	14000

3 rows returned in 0.00 seconds

4. Display the employee last name, job ID, and start date of employees hired between February 20, 1998 and May 1, 1998. Order the query in ascending order by start date. (hints: between)

```
SELECT Last_Name, Job_id, Hire_date
FROM Employees
WHERE Hire_date BETWEEN TO_DATE('20-FEB-1998', 'DD-MON-YYYY') AND
TO_DATE('01-MAY-1998', 'DD-MON-YYYY')
ORDER BY Hire_date ASC;
```



A screenshot of a SQL query result window. It displays a table with three columns: 'LAST_NAME', 'JOB_ID', and 'HIRE_DATE'. The table contains one row of data. Below the table, it states '1 rows returned in 0.03 seconds' and there is a 'Download' link.

LAST_NAME	JOB_ID	HIRE_DATE
Doe	SA_REP	02/20/1998

1 rows returned in 0.03 seconds [Download](#)

5. Display the last name and department number of all employees in departments 20 and 50 in alphabetical order by name. (hints: in, orderby)

```
SELECT Last_Name, Department_id
FROM Employees
WHERE Department_id IN (20, 50)
ORDER BY Last_Name ASC;
```

LAST_NAME	DEPARTMENT_ID
Brown	50
Doe	20
Green	20
Smith	50
White	50

6. Display the last name and salary of all employees who earn between 5000 and 12000 and are in departments 20 and 50 in alphabetical order by name. Label the columns

EMPLOYEE, MONTHLY SALARY respectively.(hints: between, in)

SELECT Last_Name AS EMPLOYEE, Salary AS "MONTHLY SALARY"

FROM Employees

WHERE Salary BETWEEN 5000 AND 12000

AND Department_id IN (20, 50)

ORDER BY Last_Name ASC;

EMPLOYEE	MONTHLY SALARY
Brown	8000
Green	12000
Smith	9500

3 rows returned in 0.00 seconds

7. Display the last name and hire date of every employee who was hired in 1994.(hints: like)

SELECT Last_Name, Hire_date

FROM Employees

WHERE Hire_date LIKE '%1994';

LAST_NAME	HIRE_DATE
Smith	04/25/1994

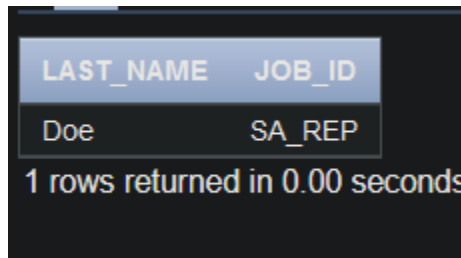
1 rows returned in 0.01 seconds

8. Display the last name and job title of all employees who do not have a manager.(hints: is null)

SELECT Last_Name, Job_id

FROM Employees

WHERE Manager_id IS NULL;



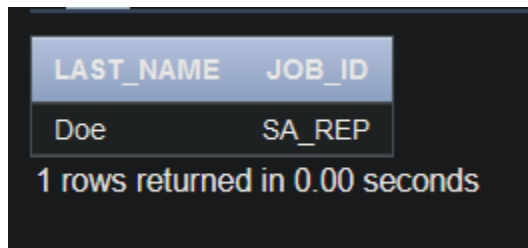
LAST_NAME	JOB_ID
Doe	SA_REP

1 rows returned in 0.00 seconds

9. Display the last name, salary, and commission for all employees who earn commissions.

Sort data in descending order of salary and commissions.(hints: is not nul,orderby)

SELECT Last_Name, Salary, Commission_pct
FROM Employees
WHERE Commission_pct IS NOT NULL
ORDER BY Salary DESC, Commission_pct DESC;

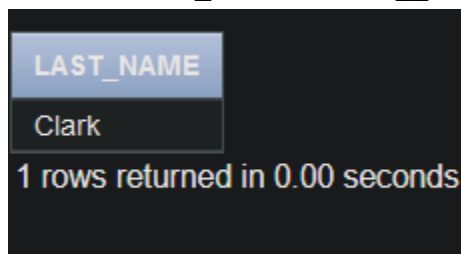


LAST_NAME	JOB_ID
Doe	SA_REP

1 rows returned in 0.00 seconds

10. Display the last name of all employees where the third letter of the name is a.(hints:like)

SELECT Last_Name
FROM Employees
WHERE Last_Name LIKE '__a%';

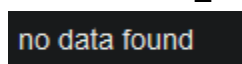


LAST_NAME
Clark

1 rows returned in 0.00 seconds

11. Display the last name of all employees who have an a and an e in their last name.(hints: like)

SELECT Last_Name
FROM Employees
WHERE Last_Name LIKE '%a%' AND Last_Name LIKE '%e%';



no data found

12. Display the last name and job and salary for all employees whose job is sales representative or stock clerk and whose salary is not equal to 2500 ,3500 or 7000.(hints:in,not in)

```
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
Doe	SA_REP	15000
White	ST_CLERK	3000
Johnson	SA_REP	14000

3 rows returned in 0.00 seconds [Download](#)