

RAJALAKSHMI ENGINEERING COLLEGE  
RAJALAKSHMI NAGAR, THANDALAM – 602 105



RAJALAKSHMI  
ENGINEERING  
COLLEGE

CS23332 DATABASE MANAGEMENT  
SYSTEMS LAB

Laboratory Record Note Book

Name : P. M. Arunesh

Year / Branch / Section : 2025 / CSE - Cyber Security

University Register No. : 2116241901007

College Roll No. : 241901007

Semester : III

Academic Year : 2024 - 28



**RAJALAKSHMI  
ENGINEERING COLLEGE**

An AUTONOMOUS Institution  
Affiliated to ANNA UNIVERSITY, Chennai

## BONAFIDE CERTIFICATE

NAME P. M. Arunesh

ACADEMIC YEAR 2024-2028 SEMESTER 3rd BRANCH CSE - Cyber Security

UNIVERSITY REGISTER No. 2116241901007

Certified that this is the bonafide record of work done by the above student in the

Database management System  
Laboratory during the year 2025 - 2026

[Signature]

Signature of Faculty - in - Charge

Submitted for the Practical Examination held on .....

Internal Examiner

External Examiner

## INDEX

Name: P. M. Arunesh

Branch : CSE-CS

Sec 1: A

Roll No : 241901007

S.No.	Date	Title	Page No.	Teacher's Sign / Remarks
1.	16/7/25	creating & managing table	1	Ppl
2.	16/7/25	manipulating data	7	Ppl
3.	17/7/25	including constraints	17	Ppl
4.	23/7/25	writing basic SQL select statement.	26	Ppl
5.	24/7/25	Restricting & Sorting data	34	Ppl
6.	30/7/25	single row function	45	Ppl
7.	31/7/25	Displaying data from multiple table	61	Ppl
8.	7/8/25	Aggregating data using group function	70	Ppl
9.	13/8/25	Sub Queries	83	Ppl
10.	14/8/25	Creating queries	91	Ppl
11.	20/8/25	using the set operators	99	Ppl
12.	3/9/25	Not Null & UNIQUE constraints.	141	Ppl
13.	17/9/25	creating queries	149	Ppl
14.	18/9/25	other database object	158	Ppl
15.	24/9/25	controlling user Access	163	Ppl
16.	25/9/25	PL/SQL	171	Ppl
17.	25/9/25	control structure.	172	Ppl
18.	8/10/25	Procedure & function	192	Ppl
19.	9/10/25	Trigger	199	Ppl
20.	15/10/25	Mango DB	220	Ppl

```
SELECT last_name, salary, job_id, department_id, hire_date
FROM employees
ORDER BY hire_date;
```

**Example:2**

```
SELECT last_name, salary, job_id, department_id, hire_date
FROM employees
ORDER BY hire_date DESC;
```

**Example:3**

**Sorting by column alias**

```
SELECT last_name, salary*12 annsal, job_id, department_id, hire_date
FROM employees
ORDER BY annsal;
```

**Example:4**

**Sorting by Multiple columns**

```
SELECT last_name, salary, job_id, department_id, hire_date
FROM employees
ORDER BY department_id, salary DESC;
```

**Find the Solution for the following:**

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

```
select last_name, salary
FROM employee
where salary > 12000;
```

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;
```



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 employee;
WHERE salary NOT BETWEEN 5000 and 12000;
```

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')
TO_DATE ('01-MAY-1998')
ORDER BY hire_date ASC;
```

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

```
SELECT last-name, department-id  
FROM employee  
WHERE department-id IN (20, 50)  
ORDER BY last-name ASC;
```

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  
ORDER BY last-name ASC;
```

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 TO_CHAR ('hire-date', 'yyyy')  
= '1994';
```

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;
```

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 null, orderby)

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

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_';
```

8. 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%';
```

9. 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);
```

10. Display the last name, salary, and commission for all employees whose commission amount is 20%. (hints: use predicate logic)

```
SELECT last_name, salary, commission_pct
FROM employees
WHERE commission_pct = 0.2;
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	