

RAJALAKSHMI ENGINEERING COLLEGE
RAJALAKSHMI NAGAR, THANDALAM – 602 105



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 2024-25 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

Example:

Assume table TEST1 with the following structure

```
CREATE TABLE test1 ( pk number PRIMARY KEY, fk number, col1 number, col2 number,  
CONSTRAINT fk_constraint FOREIGN KEY(fk) references test1, CONSTRAINT ck1 CHECK  
(pk>0 and col1>0), CONSTRAINT ck2 CHECK (col2>0));
```

An error is returned for the following statements

```
ALTER TABLE test1 DROP (pk);
```

```
ALTER TABLE test1 DROP (col1);
```

The above statement can be written with CASCADE CONSTRAINT

```
ALTER TABLE test1 DROP(pk) CASCADE CONSTRAINTS;
```

(OR)

```
ALTER TABLE test1 DROP(pk, fk, col1) CASCADE CONSTRAINTS;
```

VIEWING CONSTRAINTS

Query the USER_CONSTRAINTS table to view all the constraints definition and names.

Example:

```
SELECT constraint_name, constraint_type, search_condition FROM user_constraints  
WHERE table_name='employees';
```

Viewing the columns associated with constraints

```
SELECT constraint_name, constraint_type, FROM user_cons_columns  
WHERE table_name='employees';
```

Find the Solution for the following:

1. Add a table-level PRIMARY KEY constraint to the EMP table on the ID column. The constraint should be named at creation. Name the constraint my_emp_id_pk.

Alter Table EMP
Add constraint my_emp_id_pk
Primary Key (ID);

2. Create a PRIMARY KEY constraint to the DEPT table using the ID column. The constraint should be named at creation. Name the constraint my_dept_id_pk.

```
Create table EMP (ID Number (4), constraint my-  
emp-id-pk  
primary-key (ID);
```

3. Add a column DEPT_ID to the EMP table. Add a foreign key reference on the EMP table that ensures that the employee is not assigned to nonexistent department. Name the constraint my_emp_dept_id_fk.

```
Alter table EMP  
Add DEPT_ID Number (4);  
Alter table EMP  
Add constraint INT  
my-emp-dept-id-fk
```

```
Foreign key (DEPT_ID)  
References DEPT (ID);
```

4. Modify the EMP table. Add a COMMISSION column of NUMBER data type, precision 2, scale 2. Add a constraint to the commission column that ensures that a commission value is greater than zero.

```
Alter table EMP  
Add commission numbers (2,2)  
Alter table EMP  
Add constraint chk - commission - positive  
check (commission > 0);
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	<u>T2pl</u>