DEEN DAYAL UPADHYAYA COLLEGE

UNIVERSITY OF DELHI

DATABASE MANAGEMENT SYSTEMS

PRACTICAL SUBBMISSION

SUBMITTED TO:-

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SUBMITTED BY:-

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A.Create the following database schema EMP-DEPT with all specified constraints and use it to give answers.

a.> **EMPLOYEE Schema**

Field Type NULL KEY DEFAULT
Eno Char(3) NO PRI NIL
Ename Varchar(50) NO NIL
Job_type Varchar(50) NO NIL
SupervisonENO Char(3) Yes FK NIL
Hire_date Date NO NIL
Dno Integer YES FK NIL
Commission Decimal(10,2) YES NIL
Salary Decimal(7,2) NO NIL

Ans.

```
CREATE TABLE EMP(
E_NO VARCHAR2(3) PRIMARY KEY NOT NULL,
E_NAME VARCHAR2(25) NOT NULL,
JOB_TYPE VARCHAR2(25) NOT NULL,
MGR_NO CHAR(3),
HIRE_DATE DATE NOT NULL,
D_NO INTEGER references DEPT(D_NO),
COMMISION DECIMAL(10,2),
SALARY DECIMAL(7,2)
);
```

b.> **DEPARTMENT Schema**

Dno Integer No PRI NULL
Dname Varchar(50) Yes NULL
Location Varchar(50) Yes New Delhi

Ans.

```
CREATE TABLE DEPT (
D_NO INTEGER PRIMARY KEY NOT NULL,
D_NAME VARCHAR(25),
LOCATION VARCHAR(25)
```

);

Q1. Query to display Employee Name, Job, Hire Date, Employee Number; for each employee with the Employee Number appearing first.

Ans. SELECT E_NAME,JOB_TYPE,HIRE_DATE,E_NO FROM EMP

Results Explain Describe Saved SQL History

E_NAME	JOB_TYPE	HIRE_DATE	E_NO
SYMEN	ENGINEER	01-JUL-81	E01
PRANJAL	SENIOR SDE	01-JAN-81	E02
HARRY	MARKETINGHEAD	01-JAN-82	E03
RACHNA	MARKETINGHEAD	01-OCT-92	E04
LILLY	INSTRUCTOR	11-OCT-89	E05
ANNA	JUNIOR SDE	01-OCT-00	E06
CHRIS	SDE	01-OCT-05	E07
MORRIS	GRAPHIC DESIGNER	16-DEC-07	E08
MORRIS	JUNIOR SDE	11-NOV-09	E09
RENU	SENIOR SDE	11-NOV-79	E10

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

10 rows returned in 0.03 seconds CSV Export

Q2. Query to display unique Jobs from the Employee Table.

Ans. SELECT DISTINCT JOB_TYPE FROM EMP

Results Explain Describe Saved SQL History

JOB_TYPE
SDE
INSTRUCTOR
PEON
SENIOR SDE
MARKETINGHEAD
ENGINEER
JUNIOR SDE
GRAPHIC DESIGNER

8 rows returned in 0.06 seconds CSV Export

Q3. Query to display the Employee Name concatenated by a Job separated by a comma.

Ans. SELECT E_NAME ||','|| JOB_TYPE FROM EMP

Results Explain Describe Saved SQL History

E_NAME||','||JOB_TYPE
SYMEN,ENGINEER
PRANJAL,SENIOR SDE
HARRY,MARKETINGHEAD
RACHNA,MARKETINGHEAD
LILLY,INSTRUCTOR
ANNA,JUNIOR SDE
CHRIS,SDE
MORRIS,GRAPHIC DESIGNER
MORRIS,JUNIOR SDE
RENU,SENIOR SDE
More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.03 seconds CSV Export

Q4. Query to display all the data from the Employee Table. Separate each Column by a comma and name the said column as THE_OUTPUT.

Ans. SELECT E_NO ||','|| E_NAME ||','||JOB_TYPE||','||HIRE_DATE ||','|| COMMISION ||','|| SALARY ||','|| D_NO ||','|| MGR_NO AS THE_OUTPUT FROM EMP

Results Explain Describe Saved SQL History

THE_OUTPUT
E01,SYMEN,ENGINEER,01-JUL-81,1500,3500,1,E02
E02,PRANJAL,SENIOR SDE,01-JAN-81,4500,4000,1,
E03,HARRY,MARKETINGHEAD,01-JAN-82,2500,3500,10,E02
E04,RACHNA,MARKETINGHEAD,01-OCT-92,2500,4000,30,E02
E05,LILLY,INSTRUCTOR,11-OCT-89,1500,3000,31,E02
E06,ANNA,JUNIOR SDE,01-OCT-00,1500,2000,30,E02
E07,CHRIS,SDE,01-OCT-05,2000,1500,11,E01
E08,MORRIS,GRAPHIC DESIGNER,16-DEC-07,200,3800,1,E01
E09,MORRIS,JUNIOR SDE,11-NOV-09,2000,2200,5,E02
E10,RENU,SENIOR SDE,11-NOV-79,2000,5000,10,
More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.02 seconds CSV Export

Q5. Query to display the Employee Name and Salary of all the employees earning more than $2850.

Ans. SELECT E_NAME, SALARY FROM EMP WHERE SALARY>2850;

Results Explain Describe Saved SQL History

E_NAME	SALARY
SYMEN	3500
PRANJAL	4000
HARRY	3500
RACHNA	4000
LILLY	3000
MORRIS	3800
RENU	5000

7 rows returned in 0.08 seconds CSV Export

Q6. Query to display Employee Name and Department Number for the Employee No= 79.

Ans. SELECT E_NAME,D_NO FROM EMP WHERE E_NO ='E01'

Results Explain Describe Saved SQL History

E_NAME	D_NO
SYMEN	1

1 rows returned in 0.03 seconds CSV Export

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Q7. Query to display Employee Name and Salary for all employees whose salary is not in the range of $1500 and $2850.

Ans. SELECT E_NAME, SALARY FROM EMP WHERE SALARY NOT BETWEEN 1500 AND 2850;

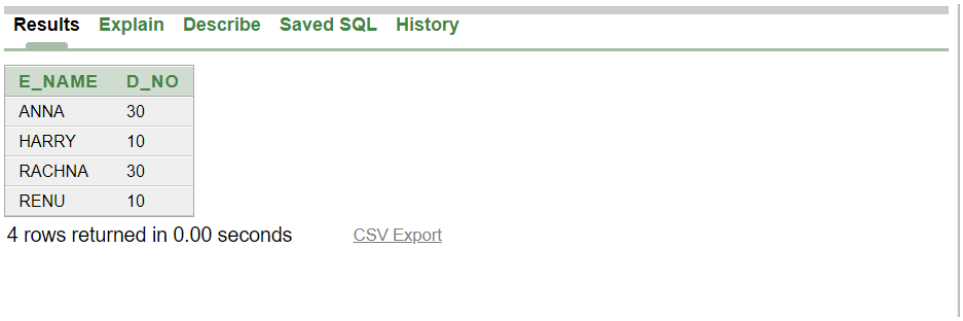
Results Explain Describe Saved SQL History

E_NAME	SALARY
SYMEN	3500
PRANJAL	4000
HARRY	3500
RACHNA	4000
LILLY	3000
MORRIS	3800
RENU	5000
MONI	1000

8 rows returned in 0.00 seconds CSV Export

Q8. Query to display Employee Name and Department No. of all the employees in Dept 10 and Dept 30 in the alphabetical order by name.

Ans. SELECT E_NAME, D_NO FROM EMP WHERE D_NO = 10 OR D_NO = 30 ORDER BY E_NAME



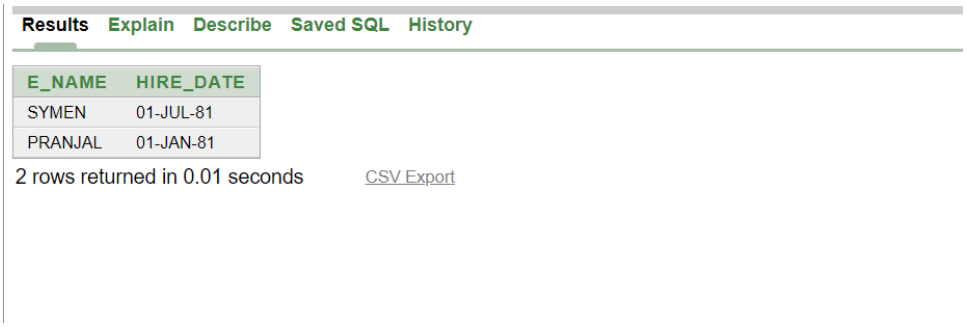
Results Explain Describe Saved SQL History

E_NAME	D_NO
ANNA	30
HARRY	10
RACHNA	30
RENU	10

4 rows returned in 0.00 seconds CSV Export

Q9. Query to display Name and Hire Date of every Employee who was hired in 1981.

Ans. SELECT E_NAME,HIRE_DATE FROM EMP WHERE HIRE_DATE LIKE '%81'



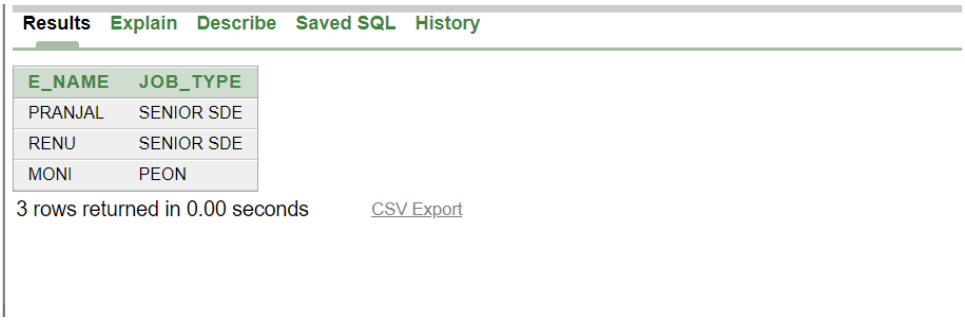
Results Explain Describe Saved SQL History

E_NAME	HIRE_DATE
SYMEN	01-JUL-81
PRANJAL	01-JAN-81

2 rows returned in 0.01 seconds CSV Export

Q10. Query to display Name and Job of all employees who have not assigned a supervisor.

Ans. SELECT E_NAME,JOB_TYPE FROM EMP WHERE MGR_NO IS NULL;



Results Explain Describe Saved SQL History

E_NAME	JOB_TYPE
PRANJAL	SENIOR SDE
RENU	SENIOR SDE
MONI	PEON

3 rows returned in 0.00 seconds CSV Export

Q11. Query to display the Name, Salary and Commission for all the employees who earn commission.

Ans. SELECT E_NAME, SALARY, COMMISION FROM EMP WHERE COMMISION >0

Results Explain Describe Saved SQL History

E_NAME	SALARY	COMMISION
SYMEN	3500	1500
PRANJAL	4000	4500
HARRY	3500	2500
RACHNA	4000	2500
LILLY	3000	1500
ANNA	2000	1500
CHRIS	1500	2000
MORRIS	3800	200
MORRIS	2200	2000
RENU	5000	2000

Q12. Sort the data in descending order of Salary and Commission.

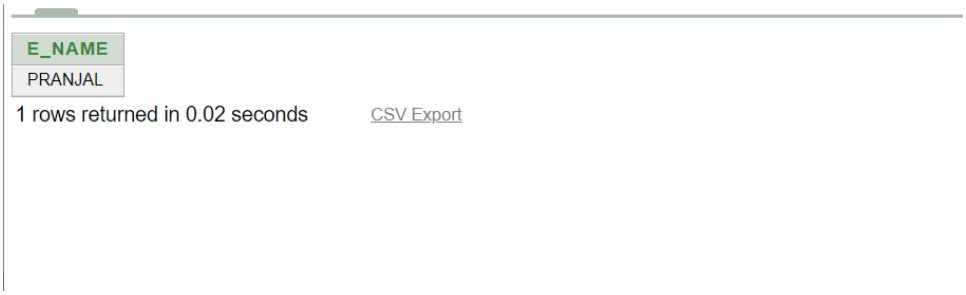
Ans. SELECT* FROM EMP ORDER BY SALARY ASC,COMMISION ASC

Results Explain Describe Saved SQL History

E_NO	E_NAME	JOB_TYPE	MGR_NO	HIRE_DATE	D_NO	COMMISION	SALARY
E11	MONI	PEON	-	11-NOV-99	-	0	1000
E07	CHRIS	SDE	E01	01-OCT-05	11	2000	1500
E06	ANNA	JUNIOR SDE	E02	01-OCT-00	30	1500	2000
E09	MORRIS	JUNIOR SDE	E02	11-NOV-09	5	2000	2200
E05	LILLY	INSTRUCTOR	E02	11-OCT-89	31	1500	3000
E01	SYMEN	ENGINEER	E02	01-JUL-81	1	1500	3500
E03	HARRY	MARKETINGHEAD	E02	01-JAN-82	10	2500	3500
E08	MORRIS	GRAPHIC DESIGNER	E01	16-DEC-07	1	200	3800
E04	RACHNA	MARKETINGHEAD	E02	01-OCT-92	30	2500	4000
E02	PRANJAL	SENIOR SDE	-	01-JAN-81	1	4500	4000

Q13. Query to display Name of all the employees where the third letter of their name is ‘A’.

Ans. SELECT E_NAME FROM EMP WHERE E_NAME LIKE '__A%'

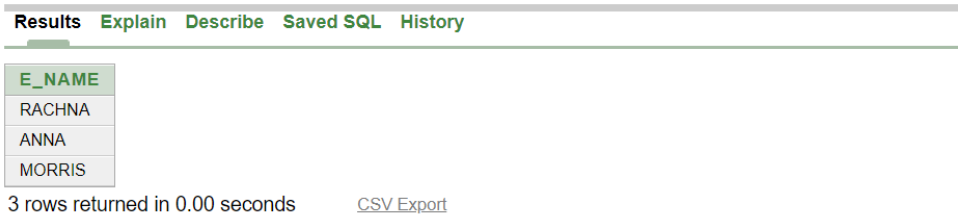


E_NAME
PRANJAL

1 rows returned in 0.02 seconds CSV Export

Q14. Query to display Name of all employees either have two ‘R’s or have two ‘A’s in their name and are either in Dept No = 30 or their Manger’s Employee No = 7788

Ans. SELECT E_NAME FROM EMP WHERE (E_NAME LIKE '%A%A%' OR E_NAME LIKE ‘%R%R%') AND (D_NO = 30 OR MGR_NO = 'E01')



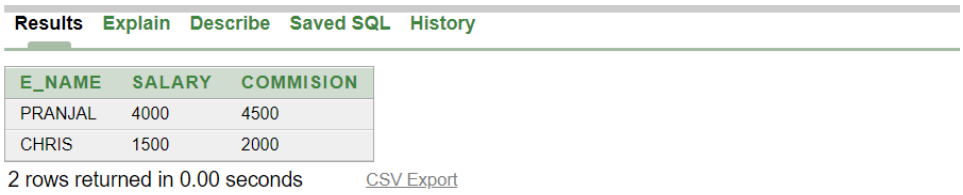
Results Explain Describe Saved SQL History

E_NAME
RACHNA
ANNA
MORRIS

3 rows returned in 0.00 seconds CSV Export

Q15. Query to display Name, Salary and Commission for all employees whose Commission amount is greater than their Salary increased by 5%.

Ans. SELECT E_NAME,SALARY,COMMISION FROM EMP WHERE COMMISION > SALARY*1.05



Results Explain Describe Saved SQL History

E_NAME	SALARY	COMMISION
PRANJAL	4000	4500
CHRIS	1500	2000

2 rows returned in 0.00 seconds CSV Export

Q16. Query to display the Current Date along with the day name.

Ans. SELECT TO_CHAR(SYSDATE ,'DD-MON-YYYY DAY HH24:MI:SS') AS TODAY_DATE FROM DUAL

Results Explain Describe Saved SQL History

TODAY_DATE
02-MAY-2023 TUESDAY 11:57:50

1 rows returned in 0.01 seconds CSV Export

Q17. Query to display Name, Hire Date and Salary Review Date which is the 1st Monday after six months of employment.

Ans. SELECT E_NAME,HIRE_DATE,NEXT_DAY(ADD_MONTHS(HIRE_DATE,6),'MONDAY') AS SALARY_REVIEW_DATE FROM EMP

Results Explain Describe Saved SQL History

E_NAME	HIRE_DATE	SALARY_REVIEW_DATE
SYMEN	01-JUL-81	04-JAN-82
PRANJAL	01-JAN-81	06-JUL-81
HARRY	01-JAN-82	05-JUL-82
RACHNA	01-OCT-92	05-APR-93
LILLY	11-OCT-89	16-APR-90
ANNA	01-OCT-00	02-APR-01
CHRIS	01-OCT-05	03-APR-06
MORRIS	16-DEC-07	23-JUN-08
MORRIS	11-NOV-09	17-MAY-10
RENU	11-NOV-79	12-MAY-80
More than 10 rows available. Increase rows selector to view more rows.		

10 rows returned in 0.00 seconds CSV Export

Q18. Query to display Name and calculate the number of months between today and the date on which employee was hired of department ‘Purchase’.

Ans. SELECT E_NAME,ROUND(MONTHS_BETWEEN(SYSDATE,HIRE_DATE)) AS TIME FROM EMP WHERE D_NO IN (SELECT D_NO FROM DEPT WHERE D_NAME = 'PURCHASE')

Results Explain Describe Saved SQL History

E_NAME	TIME
MORRIS	162

1 rows returned in 0.03 seconds CSV Export

Q19. Query to display the following for each employee earns < Salary> monthly but wants < 3 * Current Salary >. Label the Column as Dream Salary.

Ans. SELECT E_NAME || ' EARNS ' || SALARY || ' MONTHLY BUT WANTS ' || 3*SALARY AS DREAM_SALARY FROM EMP;

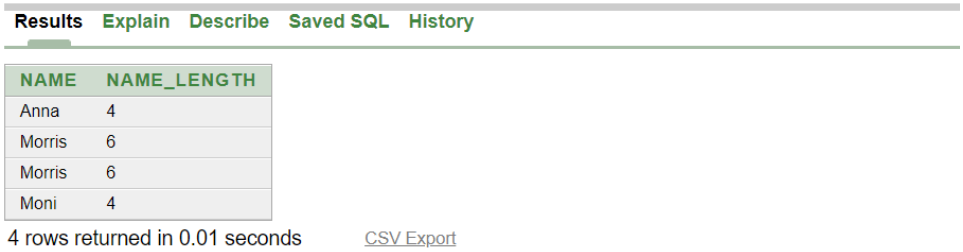
Results Explain Describe Saved SQL History

DREAM_SALARY
SYMEN EARNS 3500 MONTHLY BUT WANTS 10500
PRANJAL EARNS 4000 MONTHLY BUT WANTS 12000
HARRY EARNS 3500 MONTHLY BUT WANTS 10500
RACHNA EARNS 4000 MONTHLY BUT WANTS 12000
LILLY EARNS 3000 MONTHLY BUT WANTS 9000
ANNA EARNS 2000 MONTHLY BUT WANTS 6000
CHRIS EARNS 1500 MONTHLY BUT WANTS 4500
MORRIS EARNS 3800 MONTHLY BUT WANTS 11400
MORRIS EARNS 2200 MONTHLY BUT WANTS 6600
RENU EARNS 5000 MONTHLY BUT WANTS 15000
More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.00 seconds CSV Export

Q20. Query to display Name with the 1st letter capitalized and all other letter lower case and length of their name of all the employees whose name starts with ‘J’, ’A’ and ‘M’.

Ans. SELECT INITCAP(E_NAME) AS NAME,LENGTH(E_NAME) AS NAME_LENGTH FROM EMP WHERE E_NAME LIKE 'A%' OR E_NAME LIKE 'J%' OR E_NAME LIKE 'M%';



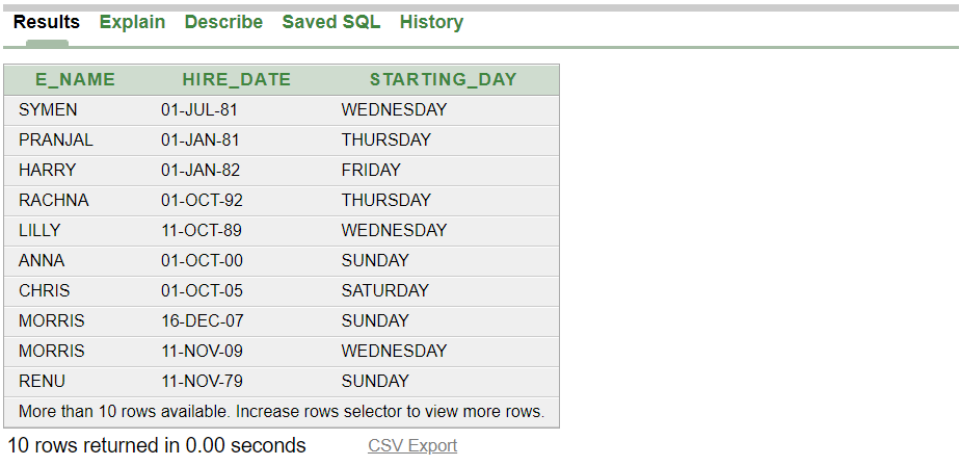
Results Explain Describe Saved SQL History

NAME	NAME_LENGTH
Anna	4
Morris	6
Morris	6
Moni	4

4 rows returned in 0.01 seconds CSV Export

Q21. Query to display Name, Hire Date and Day of the week on which the employee started.

Ans. SELECT E_NAME,HIRE_DATE,TO_CHAR(HIRE_DATE,'DAY') AS STARTING_DAY FROM EMP;



Results Explain Describe Saved SQL History

E_NAME	HIRE_DATE	STARTING_DAY
SYMEN	01-JUL-81	WEDNESDAY
PRANJAL	01-JAN-81	THURSDAY
HARRY	01-JAN-82	FRIDAY
RACHNA	01-OCT-92	THURSDAY
LILLY	11-OCT-89	WEDNESDAY
ANNA	01-OCT-00	SUNDAY
CHRIS	01-OCT-05	SATURDAY
MORRIS	16-DEC-07	SUNDAY
MORRIS	11-NOV-09	WEDNESDAY
RENU	11-NOV-79	SUNDAY
More than 10 rows available. Increase rows selector to view more rows.		

10 rows returned in 0.00 seconds CSV Export

Q22. Query to display Name, Department Name and Department No for all the employees.

Ans. SELECT EMP.E_NAME,DEPT.D_NAME,DEPT.D_NO FROM EMP,DEPT WHERE DEPT.D_NO = EMP.D_NO;

Results Explain Describe Saved SQL History

E_NAME	D_NAME	D_NO
SYMEN	IT	1
PRANJAL	IT	1
HARRY	SALES	10
RACHNA	IT	30
LILLY	SECURITY	31
ANNA	IT	30
CHRIS	IT	11
MORRIS	IT	1
MORRIS	PURCHASE	5
RENU	SALES	10

10 rows returned in 0.00 seconds CSV Export

Q23. Query to display Unique Listing of all Jobs that are in Department number 30.

Ans. SELECT DISTINCT JOB_TYPE FROM EMP WHERE D_NO = 30;

Results Explain Describe Saved SQL History

JOB_TYPE
MARKETINGHEAD
JUNIOR SDE

2 rows returned in 0.01 seconds CSV Export

Q24. Query to display Name, Dept Name of all employees who have an ‘A’ in their name.

Ans. SELECT EMP.E_NAME,DEPT.D_NAME FROM EMP,DEPT WHERE DEPT.D_NO = EMP.D_NO AND E_NAME LIKE '%A%';

Results Explain Describe Saved SQL History

E_NAME	D_NAME
PRANJAL	IT
HARRY	SALES
ANNA	IT
RACHNA	IT

4 rows returned in 0.04 seconds CSV Export

Q25. Query to display Name, Job, Department No. And Department Name for all the employees working at the Dallas location.

Ans. SELECT EMP.E_NAME,EMP.JOB_TYPE,DEPT.D_NO,DEPT.D_NAME FROM EMP,DEPT WHERE DEPT.D_NO= EMP.D_NO AND DEPT.LOCATION ='DALLAS'

Results Explain Describe Saved SQL History

E_NAME	JOB_TYPE	D_NO	D_NAME
SYMEN	ENGINEER	1	IT
PRANJAL	SENIOR SDE	1	IT
MORRIS	GRAPHIC DESIGNER	1	IT

3 rows returned in 0.04 seconds CSV Export

Q26. Query to display Name and Employee no. Along with their supervisor's Name and the supervisor's employee no; along with the Employees' Name who do not have a supervisor.

Ans. SELECT E.E_NAME, E.E_NO,S.E_NAME AS Supervisor_Name, S.E_NO AS Supervisor_Number FROM EMP E LEFT JOIN EMP S ON E.MGR_NO = S.E_NO

ORDER BY E.E_NAME;

Results Explain Describe Saved SQL History

E_NAME	E_NO	SUPERVISOR_NAME	SUPERVISOR_NUMBER
ANNA	E06	PRANJAL	E02
CHRIS	E07	SYMEN	E01
HARRY	E03	PRANJAL	E02
LILLY	E05	PRANJAL	E02
MONI	E11	-	-
MORRIS	E08	SYMEN	E01
MORRIS	E09	PRANJAL	E02
PRANJAL	E02	-	-
RACHNA	E04	PRANJAL	E02
RENU	E10	-	-

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

10 rows returned in 0.11 seconds CSV Export

Q27. Query to display Name, Dept No. And Salary of any employee whose department No. and salary matches both the department no. And the salary of any employee who earns a commission.

Ans. SELECT E_NAME,D_NO,SALARY FROM EMP WHERE D_NO =(SELECT D_NO FROM EMP WHERE COMMISION IS NOT NULL AND ROWNUM = 1) AND SALARY = (SELECT SALARY FROM EMP WHERE COMMISION IS NOT NULL AND ROWNUM = 1)

Results Explain Describe Saved SQL History

E_NAME	D_NO	SALARY
SYMEN	1	3500

1 rows returned in 0.08 seconds CSV Export

Q28. Query to display Name and Salaries represented by asterisks, where each asterisk (*) signifies $100.

Ans. SELECT E_NAME,RPAD('*',SALARY/100 ,'*') AS SALARY FROM EMP;

Results Explain Describe Saved SQL History

E_NAME	SALARY
SYMEN	**********
PRANJAL	**********
HARRY	**********
RACHNA	**********
LILLY	**********
ANNA	**********
CHRIS	**********
MORRIS	**********
MORRIS	**********
RENU	**********

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

10 rows returned in 0.01 seconds CSV Export

Q29. Query to display the Highest, Lowest, Sum and Average Salaries of all the employees

Ans. SELECT MAX(SALARY) AS HIGHEST_SALARY,MIN(SALARY) AS LOWEST_SALARY,SUM(SALARY) AS SUM,ROUND(AVG(SALARY)) AS AVERAGE_SALARY FROM EMP;

Results Explain Describe Saved SQL History

HIGHEST_SALARY	LOWEST_SALARY	SUM	AVERAGE_SALARY
5000	1000	33500	3045

1 rows returned in 0.00 seconds CSV Export

Q30. Query to display the number of employees performing the same Job type functions.

Ans. SELECT JOB_TYPE, COUNT(*) AS NO_EMP FROM EMP GROUP BY JOB_TYPE;

Results Explain Describe Saved SQL History

JOB_TYPE	NO_EMP
SDE	1
INSTRUCTOR	1
PEON	1
SENIOR SDE	2
MARKETINGHEAD	2
ENGINEER	1
JUNIOR SDE	2
GRAPHIC DESIGNER	1

8 rows returned in 0.04 seconds CSV Export

Q31. Query to display the total number of supervisors without listing their names.

Ans. SELECT COUNT (DISTINCT MGR_NO) FROM EMP

COUNT(DISTINCTMGR_NO)
2

1 rows returned in 0.02 seconds CSV Export

Q32. Query to display the Department Name, Location Name, No. of Employees and the average salary for all employees in that department.

Ans. SELECT D.D_NAME, D.LOCATION, COUNT(E.E_NO) AS "NO_OF_EMP",ROUND(AVG(E.SALARY))AS "AVG SALARY" FROM DEPT D , EMP E WHERE D.D_NO = E.D_NO GROUP BY D.D_NAME, D.LOCATION

Results Explain Describe Saved SQL History

D_NAME	LOCATION	NO_OF_EMP	AVG SALARY
SALES	HYDERABAD	2	4250
IT	HYDERABAD	1	1500
PURCHASE	CHENNAI	1	2200
IT	CHENNAI	2	3000
SECURITY	CHENNAI	1	3000
IT	DALLAS	3	3767

6 rows returned in 0.00 seconds CSV Export

Q33. Query to display Name and Hire Date for all employees in the same dept. as PRANJAL.

Ans. SELECT EMP.E_NAME, EMP.HIRE_DATE FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO WHERE DEPT.D_NAME = (SELECT DEPT.D_NAME FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO WHERE EMP.E_NAME = 'PRANJAL')

Results Explain Describe Saved SQL History

E_NAME	HIRE_DATE
SYMEN	01-JUL-81
PRANJAL	01-JAN-81
RACHNA	01-OCT-92
ANNA	01-OCT-00
CHRIS	01-OCT-05
MORRIS	16-DEC-07

6 rows returned in 0.00 seconds CSV Export

Q34. Query to display the Employee No. And Name for all employees who earn more than the average salary.

Ans. SELECT E_NO,E_NAME FROM EMP WHERE SALARY > (SELECT AVG(SALARY) FROM EMP)

Results Explain Describe Saved SQL History

E_NO	E_NAME
E01	SYMEN
E02	PRANJAL
E03	HARRY
E04	RACHNA
E08	MORRIS
E10	RENU

6 rows returned in 0.03 seconds CSV Export

Q35. Query to display Employee Number and Name for all employees who work in a department with any employee whose name contains a ‘T’.

Ans. SELECT EMP.E_NO, EMP.E_NAME FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO WHERE DEPT.D_NAME IN (SELECT DEPT.D_NAME FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO WHERE EMP.E_NAME LIKE '%T%')

Results Explain Describe Saved SQL History

E_NO	E_NAME
E01	SYMEN
E02	PRANJAL
E04	RACHNA
E06	ANNA
E07	CHRIS
E08	MORRIS
E13	RATNE

7 rows returned in 0.00 seconds CSV Export

Q36. Query to display the names and salaries of all employees who report to supervisor named Symen.

Ans. SELECT E_NAME,SALARY FROM EMP WHERE MGR_NO = (SELECT E_NO FROM EMP WHERE E_NAME = 'SYMEN')

Results Explain Describe Saved SQL History

E_NAME	SALARY
CHRIS	1500
MORRIS	3800

2 rows returned in 0.00 seconds CSV Export

Q37. Query to display the department no, name and job for all employees in the Sales department .

Ans. SELECT D_NO,E_NAME,JOB_TYPE FROM EMP WHERE D_NO IN (SELECT D_NO FROM DEPT WHERE D_NAME = 'SALES')

Results Explain Describe Saved SQL History

D_NO	E_NAME	JOB_TYPE
10	HARRY	MARKETINGHEAD
10	RENU	SENIOR SDE

2 rows returned in 0.00 seconds CSV Export

Q38. Display names of employees along with their department name who have more than 20 years experience.

Ans. SELECT E_NAME, D_NAME FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO WHERE MONTHS_BETWEEN(SYSDATE,HIRE_DATE)>=20*12

Results Explain Describe Saved SQL History

E_NAME	D_NAME
SYMEN	IT
PRANJAL	IT
HARRY	SALES
RACHNA	IT
LILLY	SECURITY
ANNA	IT
RENU	SALES
RATNE	IT

8 rows returned in 0.02 seconds CSV Export

Q39. Display total number of departments at each location.

Ans. SELECT LOCATION,COUNT(D_NO) FROM DEPT GROUP BY LOCATION

Results Explain Describe Saved SQL History

LOCATION	COUNT(D_NO)
CHENNAI	3
DALLAS	3
HYDERABAD	2

3 rows returned in 0.00 seconds CSV Export

Q40. Find the department name in which at least 20 employees work in.

Ans. SELECT DEPT.D_NAME FROM EMP JOIN DEPT ON EMP.D_NO = DEPT.D_NO GROUP BY D_NAME HAVING COUNT(*) >=20

Results Explain Describe Saved SQL History

no data found

Q41. Query to find the employee' name who is not supervisor and name of supervisor supervising more than 5 employees.

Ans. SELECT E_NO, E_NAME FROM EMP

WHERE E_NO NOT IN (SELECT MGR_NO FROM EMP WHERE MGR_NO IS NOT NULL) OR

E_NO IN (SELECT MGR_NO FROM EMP GROUP BY MGR_NO HAVING COUNT(MGR_NO) > 5)

Results Explain Describe Saved SQL History

E_NO	E_NAME
E02	PRANJAL
E03	HARRY
E04	RACHNA
E05	LILLY
E06	ANNA
E07	CHRIS
E08	MORRIS
E09	MORRIS
E10	RENU
E11	MONI

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

Q42. Query to display the job type with maximum and minimum employees.

Ans. SELECT JOB_TYPE,COUNT(*) AS EMP_COUNT FROM EMP

GROUP BY JOB_TYPE

HAVING COUNT(*) = (SELECT MAX(COUNT(*)) AS employee_count FROM EMP GROUP BY JOB_TYPE) OR COUNT(*) = (SELECT MIN(COUNT(*)) AS employee_count FROM EMP GROUP BY JOB_TYPE);

Results Explain Describe Saved SQL History

JOB_TYPE	EMP_COUNT
SDE	1
INSTRUCTOR	1
PEON	1
SENIOR SDE	3
ENGINEER	1
GRAPHIC DESIGNER	1

6 rows returned in 0.00 seconds CSV Export

Q43. Query to display name , hiredate and day of the week on which the employee started.

Ans. SELECT E_NAME , HIRE_DATE, TO_CHAR(HIRE_DATE , ' DAY') as " Day Of Week" FROM EMP ;

Results Explain Describe Saved SQL History

E_NAME	HIRE_DATE	Day Of Week
SYMEN	01-JUL-81	WEDNESDAY
PRANJAL	01-JAN-81	THURSDAY
HARRY	01-JAN-82	FRIDAY
RACHNA	01-OCT-92	THURSDAY
LILLY	11-OCT-89	WEDNESDAY
ANNA	01-OCT-00	SUNDAY
CHRIS	01-OCT-05	SATURDAY
MORRIS	16-DEC-07	SUNDAY
MORRIS	11-NOV-09	WEDNESDAY
RENU	11-NOV-79	SUNDAY
More than 10 rows available. Increase rows selector to view more rows.		

10 rows returned in 0.05 seconds CSV Export

B. Create the following database schema MOVIE-CUST-INVOICE with all specified constraints and use it to give answers.

a. Create : CUST

Col Name	Format	Remarks
Cust_id	varchar2 (3)	Prim key, Not null
Lname	varchar2 (15)	
Fname	varchar2 (15)	
Area	varchar2 (2)	
Phone_no	number (8)	

Ans. CREATE TABLE CUST (CUST_ID VARCHAR2(3) PRIMARY KEY NOT NULL,FNAME VARCHAR2(15),LNAME VARCHAR2(15),AREA VARCHAR2(2),PHONE NUMBER(8));

b. Create: movie

Col Name	Format	Remarks

Mv_no	number(2)	Primary key, Not null
Title	varchar2 (25)	
Type	varchar2 (10)	
Star	varchar2 (25)	
Price	number(8,2)	

Ans. CREATE TABLE MOVIE (MV_NO NUMBER(2) PRIMARY KEY NOT NULL,TITLE VARCHAR2(25),TYPE VARCHAR2(10),STAR VARCHAR2(25),PRICE NUMBER(8,2);

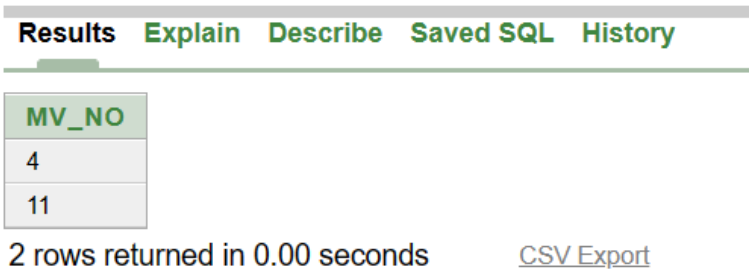
c. Create:Invoice

Col name	Format	Remarks
Inv_no	varchar2(3)	Primary key, not null
Mv_no	number (2)	Foreign Key
Cust_id	varchar2 (3)	Foreign Key
Issue_date	date	
Return_date	date	

Ans. CREATE TABLE INV(INV_NO VARCHAR2(3) PRIMARY KEY NOT NULL,MV_NO NUMBER(2) REFERENCES MOVIE(MV_NO),CUST_ID VARCHAR2(3) REFERENCES CUST(CUST_ID),ISSUE DATE,RETURN DATE);

Q1. Find out the movie number which has been issued to 'ivan' .

Ans> SELECT INV.MV_NO FROM CUST,INV WHERE INV.CUST_ID = CUST.CUST_ID AND CUST.F_NAME = 'IVAN'



Q2 . Find the names and movie numbers of all the customers who have been issued a movie.

Ans. SELECT CUST.F_NAME || ' ' || CUST.L_NAME AS "NAME",INV.MV_NO FROM INV,CUST WHERE INV.CUST_ID = CUST.CUST_ID ORDER BY CUST.F_NAME

Results Explain Describe Saved SQL History

NAME	MV_NO
BASU NAVINDGI	7
IVAN BAY	11
IVAN BAY	4
PRAMADA JAGUSTE	6
PRAMADA JAGUSTE	5
RAVI SREEDHARAN	11
RUKMINI	2
RUKMINI	8
VANDANA SATWAL	3
VANDANA SATWAL	1

10 rows returned in 0.00 seconds CSV Export

Q3. Select the title, cust_id , mv_no for all the movies that are issued .

Ans. SELECT MOVIE.TITLE,INV.CUST_ID,INV.MV_NO FROM INV,MOVIE WHERE INV.MV_NO = MOVIE.MV_NO;

Results Explain Describe Saved SQL History

TITLE	CUST_ID	MV_NO
RUSH HOUR	A02	1
THE FIRM	A06	2
DAYS OF HEAVEN	A02	3
HOME ALONE	A01	4
THE FUGITIVE	A03	5
COMA	A03	6
DRACULA	A04	7
QUICK CHANGE	A06	8
CARRY ON DOCTOR	A05	11
CARRY ON DOCTOR	A01	11

10 rows returned in 0.01 seconds CSV Export

Q4. Find out the title and types of the movies That have been issued to ‘ vandana ‘ .

Ans. SELECT MOVIE.TITLE,MOVIE.TYPE FROM INV,CUST,MOVIE WHERE (INV.CUST_ID = CUST.CUST_ID AND INV.MV_NO = MOVIE.MV_NO) AND (CUST.F_NAME = 'VANDANA');

Results Explain Describe Saved SQL History

TITLE	TYPE
RUSH HOUR	ACTION
DAYS OF HEAVEN	ROMANCE

2 rows returned in 0.00 seconds CSV Export

Q5. Find the names of the customers who have been issued movie of type ‘drama’ .

Ans. SELECT CUST.F_NAME || ' ' || CUST.L_NAME FROM CUST,INV,MOVIE WHERE (INV.CUST_ID = CUST.CUST_ID AND INV.MV_NO = MOVIE.MV_NO) AND (MOVIE.TYPE = 'DRAMA');

Results Explain Describe Saved SQL History

NAME
IVAN BAY
RAVI SREEDHARAN

2 rows returned in 0.00 seconds CSV Export

Q6 . Print the type and average price of each movie

Ans. SELECT TYPE, AVG(PRICE) FROM MOVIE GROUP BY TYPE;

Results Explain Describe Saved SQL History

TYPE	AVG(PRICE)
THRILLER	200
ACTION	180.95
COMEDY	116.66666666666666666666666666666666666667
SUSPENSE	100
ROMANCE	150.55
DRAMA	200
HORROR	150.25

7 rows returned in 0.02 seconds CSV Export

Q7 Find the number of movies in each type .

Ans. SELECT TYPE, COUNT (*) FROM MOVIE GROUP BY TYPE;

Results Explain Describe Saved SQL History

TYPE	COUNT(*)
THRILLER	2
ACTION	1
COMEDY	3
SUSPENSE	1
ROMANCE	1
DRAMA	1
HORROR	1

7 rows returned in 0.02 seconds CSV Export

Q8 Count seperately the number of movies in the 'Comedy' and ' Thriller ' types .

Ans. SELECT TYPE, COUNT(*) AS "No_of_Movies" FROM MOVIE GROUP BY TYPE HAVING type = 'COMEDY' OR TYPE= 'THRILLER';

Results Explain Describe Saved SQL History

TYPE	No_of_Movies
THRILLER	2
COMEDY	3

2 rows returned in 0.00 seconds CSV Export

Q9. Calculate the average price for each type that has a Maximum price of 150.00 .

Ans. SELECT TYPE, AVG (PRICE), MAX (PRICE) From MOVIE GROUP BY TYPE HAVING (MAX (PRICE) = 150)

Results Explain Describe Saved SQL History

TYPE	AVG(PRICE)	MAX(PRICE)
COMEDY	116.66666666666666666666666666666666666667	150

1 rows returned in 0.03 seconds CSV Export

Q10. Calculate the Avg price of all movies where type is 'Comedy' or ' Thriller' and price is greater than or equal to 150.

Ans. SELECT AVG(PRICE) AS avg_price FROM MOVIE WHERE TYPE IN ('COMEDY', 'THRILLER')

AND PRICE >= 150