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**Course:**

Data Base Systems

**Tables Creation**

**Department Table:**

Create table DEPARTMENT\_TABLE

(

dp\_id int primary key,

dp\_name varchar(20),

dp\_location varchar(15)

);

**Salary Table:**

Create table SALARY\_GRADE

(

grade int primary key,

min\_salary int,

max\_salary int);

**Employees Table:**

Create table EMPLOYEE\_TABLE

(

emp\_id int primary key,

emp\_name varchar(15),

job\_name varchar(10),

manager\_id int,

hire\_date date,

salary decimal(10,2),

commission decimal(7,2),

dep\_id int

FOREIGN KEY (dep\_id) REFERENCES DEAPARTMENT\_TABLE(dp\_id));

**Data Insertion**

**Department:**

Insert into DEPARTMENT\_TABLE(dp\_id,dp\_name,dp\_location)

values (1001,'FINANCE','SYDENY'),

(2001,'AUDIT','MELBOURNE'),

(3001,'MARKETING','PERTH'),

(4001,'PRODUCTION','BRISBANE');

**Salary\_Grade:**

Insert into SALARY\_GRADE(grade,min\_salary,max\_salary)

Values(1,800,1300),

(2,1301,1500),

(3,1501,2100),

(4,2101,3100),

(5,3101,9999);

**Employees:**

Insert into

EMPLOYEE\_TABLE(emp\_id,emp\_name,job\_name,manager\_id,hire\_date,salary,commission, dep\_id)

values (68319,'KYLIN','PRESIDENT',null,'1991-11-18',6000.00,null,1001),

(66928,'BLAZE','MANAGER',68319,'1991-5-01',2750.00,null,3001),

(67832,'CLARE','MANAGER',68319,'1991-06-09',2550.00,null,1001),

(65646,'JONAS','MANAGER',68319,'1991-04-02',2957.00,null,2001),

(67858,'SCARLET','ANALYST',65646,'1991-04-19',3100.00,null,2001),

(69062,'FRANK','ANALYST',65646,'1991-12-03',3100.00,null,2001),

(63679,'SANDRINE','CLERK',69602,'1990-12-18',900.00,null,2001),

(64989,'ADELYN','SALESMAN',66928,'1990-02-20',1700.00,400.00,3001),

(65271,'WADE','SALESMAN',66928,'1991-02-21',1350.00,600.00,3001),

(66564,'MADDEN','SALESMAN',66928,'1991-09-28',1350.00,1500.00,3001),

(68454,'TRUCKER','SALESMAN',66928,'1991-09-08',1600.00,0.00,3001),

(68736,'ADNERS','CLERK',67858,'1997-05-23',1200.00,null,2001),

(69000,'JULIUS','CLERK',66928,'1991-12-03',1050.00,null,3001),

(69324,'MARKER','CLERK',67832,'1992-01-23',1400.00,null,1001);

**Queries Statements:**

1. Write SQL command to display complete information about the employees.

2. Write a SQL query to find the salaries of all employees. Return salary.

3. Write a SQL query to find the unique designations of the employees. Return job name.

4. Write a SQL query to list the employees’ name, increased their salary by 15%, and expressed as number of Dollars.

5. Write a SQL query to list the employee's name and job name as a format of "Employee & Job".

6. Write a query in SQL to produce the output of employees as follows. Employee JONAS(manager)

7. Write a SQL query to find those employees with hire date in the format like February 22, 1991. Return employee ID, employee name, salary, hire date.

8. Write a SQL query to count the number of characters except the spaces for each employee name. Return employee name length

9. Write a SQL query to find the employee ID, salary, and commission of all the employees.

10. Write a SQL query to find the unique department with jobs. Return department ID, Job name.

11. From the following table, Write a SQL query to find those employees who do not belong to the department 2001. Return complete information about the employees.

12. Write a SQL query to find those employees who joined before 1991. Return complete information about the employees.

13. Write a SQL query to calculate the average salary of employees who work as analysts. Return average salary.

14. Write a SQL query to find the details of the employee ‘BLAZE’.

15. Write a SQL query to identify employees whose commissions exceed their salaries. Return complete information about the employees

16. Write a SQL query to identify those employees whose salaries exceed 3000 after receiving a 25% salary increase. Return complete information about the employees.

17. Write a SQL query to find the names of the employees whose length is six. Return employee name.

18. Write a SQL query to find out which employees joined in the month of January. Return complete information about the employees.

19. Write a SQL query to separate the names of employees and their managers by the string 'works for'.

20. Write a SQL query to find those employees whose designation is ‘CLERK’. Return complete information about the employees

21. Write a SQL query to identify employees with more than 27 years of experience. Return complete information about the employees.

22. Write a SQL query to find those employees whose salaries are less than 3500. Return complete information about the employees.

23. Write a SQL query to find the employee whose designation is ‘ANALYST’. Return employee name, job name and salary.

24. Write a SQL query to identify those employees who joined the company in 1991. Return complete information about the employees.

25. Write a SQL query to find those employees who joined before 1st April 1991. Return employee ID, employee name, hire date and salary.

26. Write a SQL query identify the employees who do not report to a manager. Return employee name, job name.

27. Write a SQL query to find the employees who joined on the 1st of May 1991. Return complete information about the employees.

28.Write a SQL query to identify the experience of the employees who work under the manager whose ID number is 68319. Return employee ID, employee name, salary, experience.

29. Write a SQL query to find out which employees earn more than 100 per day as a salary. Return employee ID, employee name, salary, and experience

30. Write a SQL query to identify those employees who retired after 31-Dec-99, completing eight years of service. Return employee name

31. Write a SQL query to identify the employees whose salaries are odd. Return complete information about the employees.

32. Write a SQL query to identify employees whose salaries contain only three digits. Return complete information about the employees.

33. Write a SQL query to find those employees who joined in the month of APRIL. Return complete information about the employees.

34. Write a SQL query to find out which employees joined the company before the 19th of the month. Return complete information about the employees

35. Write a SQL query to identify those employees who have been working as a SALESMAN and month portion of the experience is more than 10. Return complete information about the employees.

36. Write a SQL query to find those employees of department id 3001 or 1001 and joined in the year 1991. Return complete information about the employees.

37. Write a SQL query to find the employees who are working for the department ID 1001 or 2001. Return complete information about the employees.

38. Write a SQL query to find those employees whose designation is ‘CLERK’ and work in the department ID 2001. Return complete information about the employees.

39. Write a query in SQL to find those employees where - 1. the employees receive some commission which should not be more than the salary and annual salary including commission is below 34000. 2. Designation is ‘SALESMAN’ and working in the department ‘3001’. Return employee ID, employee name, salary and job name.

40. Write a SQL query to find those employees who are either CLERK or MANAGER. Return complete information about the employees.

41. Write a SQL query to identify those employees who joined in any month other than February. Return complete information about the employees.

42. Write a SQL query to find those employees who joined in the year 1991. Return complete information about the employees.

43. Write a SQL query to identify the employees who joined the company in June 1991. Return complete information about the employees.

44. Write a SQL query to search for all employees with an annual salary between 24000 and 50000 (Begin and end values are included.). Return complete information about the employees.

45. Write a SQL query to identify all employees who joined the company on 1st May, 20th February, and 3rd December 1991. Return complete information about the employees.

46. Write a SQL query to find out which employees are working under the managers 63679, 68319, 66564, or 69000. Return complete information about the employees.

47. Write a SQL query to find which employees joined the company after the month of June in 1991 and within this year. Return complete information about the employees.

48. Write a SQL query to find those employees who joined in 90's. Return complete information about the employees.

49. Write a SQL query to find those managers who are in the department 1001 or 2001. Return complete information about the employees.

50. Write a SQL query to identify employees who joined in the month of FEBRUARY with a salary range of 1001 to 2000 (Begin and end values are included.). Return complete information about the employees.

**Queries:**

-- Query-1

SELECT \* FROM EMPLOYEE\_TABLE;

-- Query-2

SELECT salary AS Salary\_Sum FROM EMPLOYEE\_TABLE;

-- Query-3

SELECT DISTINCT job\_name FROM EMPLOYEE\_TABLE;

-- Query-4

SELECT emp\_name,salary \*0.25 AS salary\_in\_dollars

FROM EMPLOYEE\_TABLE;

-- Query-5

SELECT Concat(emp\_name,' & ',job\_name) AS "Employee Name & Job Name"

FROM EMPLOYEE\_TABLE;

-- Query-6

SELECT Concat(emp\_name, '(', job\_name, ')') AS Employee

FROM EMPLOYEE\_TABLE;

-- Query-7

SELECT emp\_id,emp\_name,salary, FORMAT(hire\_date, 'yyyy-MM-dd')AS hire\_date

FROM EMPLOYEE\_TABLE WHERE hire\_date = 'February 22, 1991';

-- Query-8

SELECT emp\_name,LEN(REPLACE(emp\_name, ' ', '')) AS name\_length

FROM EMPLOYEE\_TABLE;

-- Query-9

SELECT emp\_id,salary,commission

FROM EMPLOYEE\_TABLE;

-- Query-10

SELECT dep\_id,job\_name

FROM EMPLOYEE\_TABLE Order by dep\_id;

-- Query-11

SELECT \*

FROM EMPLOYEE\_TABLE WHERE dep\_id<>2001;

-- Query-12

SELECT \*

FROM EMPLOYEE\_TABLE WHERE hire\_date<'1991-01-01';

-- Query-13

SELECT AVG(salary) AS average\_of\_salary

FROM EMPLOYEE\_TABLE WHERE job\_name='ANALYST';

-- Query-14

SELECT \*

FROM EMPLOYEE\_TABLE WHERE emp\_name='BLAZE';

-- Query-15

SELECT \*

FROM EMPLOYEE\_TABLE WHERE commission>salary;

-- Query-16

SELECT \*

FROM EMPLOYEE\_TABLE WHERE salary\*0.25>3000;

-- Query 17

SELECT emp\_name

FROM EMPLOYEE\_TABLE WHERE LEN(emp\_name) = 6;

-- Query 18

SELECT \*

From EMPLOYEE\_TABLE WHERE MONTH(hire\_date) = 1;

-- Query 19

SELECT CONCAT(emp\_name, ' works for ', manager\_id) as Relationship

FROM EMPLOYEE\_TABLE;

-- Query 20

SELECT \*

FROM EMPLOYEE\_TABLE WHERE job\_name = 'Clerk';

-- Query 21

SELECT \* FROM EMPLOYEE\_TABLE

WHERE DATEDIFF(DAY, hire\_date,GETDATE()) / 365 > 27;

-- Query 22

SELECT \*

FROM EMPLOYEE\_TABLE WHERE salary < 3500;

-- Query 23

SELECT emp\_name, job\_name, salary

FROM EMPLOYEE\_TABLE WHERE job\_name = 'ANALYST';

-- Query 24

SELECT \*

FROM EMPLOYEE\_TABLE WHERE YEAR(hire\_date) = 1991;

-- Query 25

SELECT emp\_id, emp\_name, hire\_date, salary

FROM EMPLOYEE\_TABLE WHERE hire\_date < '1991-04-01';

-- Query 26

SELECT e.emp\_name,e.job\_name FROM EMPLOYEE\_TABLE as e

Left Join EMPLOYEE\_TABLE as m on e.manager\_id = m.emp\_id

WHERE e.manager\_id IS NULL;

-- Query 27

SELECT \*

FROM EMPLOYEE\_TABLE WHERE hire\_date = '1991-05-01';

-- Query 28

SELECT emp\_id, emp\_name, salary, DATEDIFF(YEAR, hire\_date,GETDATE()) AS Experience

FROM EMPLOYEE\_TABLE WHERE manager\_id = 68319;

-- Query 29

SELECT emp\_id, emp\_name, salary, DATEDIFF(YEAR, hire\_date,GETDATE()) AS Experience

FROM EMPLOYEE\_TABLE WHERE salary > 100;

-- Query 30

SELECT emp\_name

FROM EMPLOYEE\_TABLE

WHERE DATEADD(YEAR, 8, hire\_date) > '1999-12-31';

-- Query 31

SELECT \* FROM EMPLOYEE\_TABLE WHERE salary % 2 <> 0;

-- Query 32

SELECT \* FROM EMPLOYEE\_TABLE

WHERE LEN(salary) = 3;

-- Query 33

SELECT \* FROM EMPLOYEE\_TABLE

WHERE MONTH(hire\_date) = 4;

-- Query-34

SELECT \* FROM EMPLOYEE\_TABLE

WHERE DAY(hire\_date) < 19;

-- Query-35

SELECT \* FROM EMPLOYEE\_TABLE

WHERE job\_name = 'SALESMAN'

AND DATEDIFF(MONTH, hire\_date, GETDATE()) > 10;

-- Query-36

SELECT \* FROM EMPLOYEE\_TABLE

WHERE (dep\_id = 3001 OR dep\_id = 1001)

AND YEAR(hire\_date) = 1991;

-- Query-37

SELECT \* FROM EMPLOYEE\_TABLE

WHERE dep\_id IN (1001, 2001);

-- Query-38

SELECT \* FROM EMPLOYEE\_TABLE

WHERE job\_name = 'CLERK' AND dep\_id = 2001;

-- Query-39

SELECT emp\_id, emp\_name, salary, job\_name FROM EMPLOYEE\_TABLE

WHERE (commission IS NOT NULL AND commission <= salary)

AND (salary + COALESCE(commission, 0) \* 12) < 34000

AND job\_name = 'SALESMAN' AND dep\_id = 3001;

-- Query-40

SELECT \* FROM EMPLOYEE\_TABLE

WHERE job\_name IN ('CLERK', 'MANAGER');

-- Query-41

SELECT \* FROM EMPLOYEE\_TABLE

WHERE MONTH(hire\_date) != 2;

-- Query-42

SELECT \* FROM EMPLOYEE\_TABLE

WHERE YEAR(hire\_date) = 1991;

-- Query-43

SELECT \* FROM EMPLOYEE\_TABLE

WHERE YEAR(hire\_date) = 1991 AND MONTH(hire\_date) = 6;

-- Query-44

SELECT \* FROM EMPLOYEE\_TABLE

WHERE (salary \* 12 + COALESCE(commission, 0)) BETWEEN 24000 AND 50000;

-- Query-45

SELECT \* FROM EMPLOYEE\_TABLE

WHERE hire\_date IN ('1991-05-01', '1991-02-20', '1991-12-03');

-- Query-46

SELECT \* FROM EMPLOYEE\_TABLE

WHERE manager\_id IN (63679, 68319, 66564, 69000);

-- Query-47

SELECT \* FROM EMPLOYEE\_TABLE

WHERE YEAR(hire\_date) = 1991 AND hire\_date > '1991-06-30';

-- Query-48

SELECT \* FROM EMPLOYEE\_TABLE

WHERE hire\_date >= '1990-01-01' AND hire\_date < '2000-01-01';

-- Query-49

SELECT \* FROM EMPLOYEE\_TABLE

WHERE job\_name = 'MANAGER' AND dep\_id IN (1001, 2001);

-- Query-50

SELECT \* FROM EMPLOYEE\_TABLE

WHERE MONTH(hire\_date) = 2 AND salary BETWEEN 1001 AND 2000;