**Assignment-4**

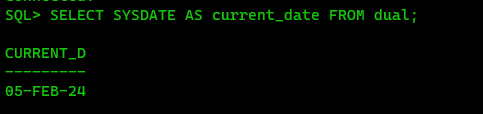
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Section :- CSE-05

1. WAQ to display the current date.

🡺 SELECT SYSDATE AS current\_date FROM dual;



2. Assume that employees serve a six month provisional period starting from their DOJ. After 6 months they get permanent status. Display all the employees’ names, doj and the date on which they received their permanent status as permanent\_date.

🡺 SELECT f\_name, l\_name, doj, doj + INTERVAL '6' MONTH AS permanent\_date FROM employee;

3. WAQ to display the last date of this current month.

🡺 SELECT LAST\_DAY(SYSDATE) AS last\_date\_of\_month FROM dual;

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4. For all the employees display their emp\_id, f\_name and their total experience in months.

🡺 SELECT employee\_id, first\_name, last\_name, MONTHS\_BETWEEN(SYSDATE, doj) AS total\_experience\_months FROM employee;

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5. WAQ to display the date of next TUESDAY.

🡺 SELECT NEXT\_DAY(SYSDATE, 'TUESDAY') AS next\_tuesday\_date FROM dual;

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6. WAQ to extract the current month.

🡺 SELECT EXTRACT(MONTH FROM SYSDATE) AS current\_month FROM dual;

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7. WAQ to extract the current year.

🡺 SELECT EXTRACT(YEAR FROM SYSDATE) AS current\_year FROM dual;

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8. WAQ to display the absolute value of -505.

🡺 SELECT ABS(-505) AS absolute\_value FROM dual;

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9. WAQ to display the ceiling of 10.44 and 10.50 and 10.65.

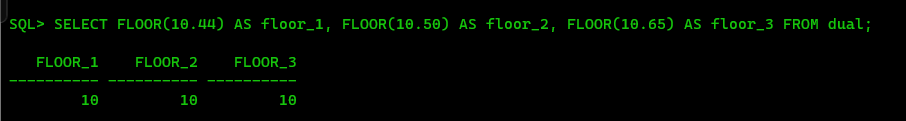
🡺 SELECT CEIL(10.44) AS ceil\_1, CEIL(10.50) AS ceil\_2, CEIL(10.65) AS ceil\_3 FROM dual;

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10. WAQ to display the floor value of 10.44 and 10.50 and 10.65.

🡺 SELECT FLOOR(10.44) AS floor\_1, FLOOR(10.50) AS floor\_2, FLOOR(10.65) AS floor\_3 FROM dual;



11. Find the logarithmic value of 10 base 2.

🡺 SELECT LOG(10, 2) AS logarithmic\_value FROM dual;

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12. Display the remainder in 594/7.

🡺 SELECT MOD(594, 7) AS remainder FROM dual;

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13. WAQ to display the value of 8 to the power 3.

🡺 SELECT POWER(8, 3) AS power\_value FROM dual;

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14. WAQ to display the square root of 3481.

🡺 SELECT SQRT(3481) AS square\_root FROM dual;

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15. Display the following rounding operations- round(45.923,2), round(45.923,0), round(45.923,-1), round(45.923,2), round(45.923,0), round(45.923,-2).

🡺 SELECT ROUND(45.923, 2) AS round\_1, ROUND(45.923, 0) AS round\_2, ROUND(45.923, -1) AS round\_3, ROUND(45.923, -2) AS round\_4 FROM dual;

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16. Display the following rounding operations- trunc(45.888,2), trunc(56.758,0), trunc(49.245,-2), trunc(45.888,2), round(45.888,2).

🡺 SELECT TRUNC(45.888, 2) AS trunc\_1, TRUNC(56.758, 0) AS trunc\_2, TRUNC(49.245, -2) AS trunc\_3 FROM dual;

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17. WAQ to return the sign of 20 and -67.60 and 0.

🡺 SELECT SIGN(20) AS sign\_1, SIGN(-67.60) AS sign\_2, SIGN(0) AS sign\_3 FROM dual;

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18. Display the value of cos(45), sin(45), and tan(45).

🡺 SELECT COS(45) AS cosine, SIN(45) AS sine, TAN(45) AS tangent FROM dual;

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19. Display the ASCII character corresponding to the integer 79.

🡺 SELECT CHR(79) AS ascii\_character FROM dual;

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20.Display the f\_name and l\_name together using the concat() function.

🡺 SELECT CONCAT ('Bibek', 'Sah') FROM DUAL;

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21. Display all the f\_names in capital letters.

🡺 SELECT UPPER(first\_name) AS capital\_f\_name FROM employee;

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22. Find the length of the first name and last name of all the employees who work in the sales department.

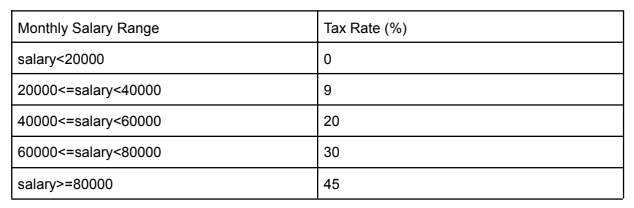
🡺 SELECT LENGTH(first\_name) AS first\_name\_length, LENGTH(last\_name) AS last\_name\_length FROM employee WHERE dept = 'sales';

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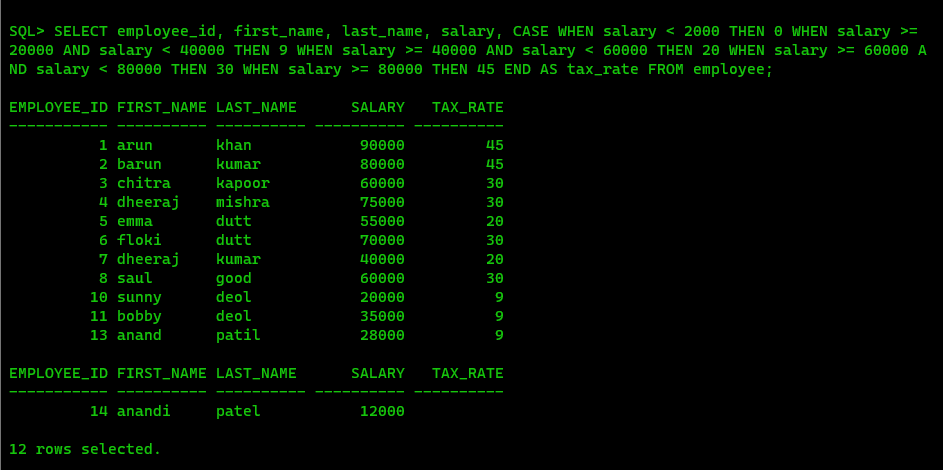
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23. Determine the tax-rate for each employee based on their monthly salary. The tax-rates are

as per the following table. If salary is < 2000 then tax rate is 0 %, 20000<=salary<40000 9%, 40000<=salary<60000 20%, 60000<=salary<80000 30%, salary>=80000 45%



🡺 SELECT employee\_id, first\_name, last\_name, salary, CASE WHEN salary < 2000 THEN 0 WHEN salary >= 20000 AND salary < 40000 THEN 9 WHEN salary >= 40000 AND salary < 60000 THEN 20 WHEN salary >= 60000 AND salary < 80000 THEN 30 WHEN salary >= 80000 THEN 45 END AS tax\_rate FROM employee;



24. Find the average salary, maximum salary, minimum salary and the sum of salaries from the employee table.

🡺 SELECT AVG(salary) AS average\_salary, MAX(salary) AS maximum\_salary, MIN(salary) AS minimum\_salary, SUM(salary) AS total\_salary FROM employee;

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25. Find the average salary, maximum salary, minimum salary and the sum of salaries of the

employees who work for the sales department.

🡺 SELECT AVG(salary) AS average\_salary, MAX(salary) AS maximum\_salary, MIN(salary) AS minimum\_salary, SUM(salary) AS total\_salary FROM employee WHERE dept = 'sales';

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26. Find the newest and oldest employee.

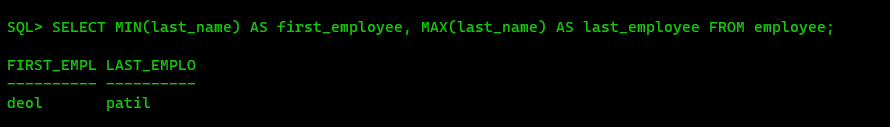
🡺 SELECT MAX(doj) AS newest\_employee, MIN(doj) AS oldest\_employee FROM employee;

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27. Find those two employees whose l\_name comes first and last in alphabetical order.

🡺 SELECT MIN(last\_name) AS first\_employee, MAX(last\_name) AS last\_employee FROM employee;



28. Find the number of engineers.

🡺 SELECT COUNT(\*) AS num\_engineers FROM employee WHERE job\_types = 'engineer';

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29. Find the number of departments from the employee table.

🡺 SELECT COUNT(DISTINCT dept) AS num\_departments FROM employee;

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30. Find the average commission from the employee table.

🡺 SELECT AVG(commission) AS average\_commission FROM employee;

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