QUERY NO – 1

−Create a list of all tables whose first two characters in the name of the table is JO.

−The tables must be owned by the current Oracle User.

SQL QUERY

SELECT table\_name

FROM user\_tables

WHERE table\_name LIKE 'JO%';

QUERY NO – 2

Create a list that includes the first initial of every employee's first name, a space, and the last name of the employee.

SQL QUERY

SELECT

SUBSTR(first\_name, 1, 1) || ' ' || last\_name AS employee\_name

FROM

Employees;

QUERY NO – 3

Create a list of every employee's first name concatenated to a space and the employee's last name, and the email of all employees where the email address contains the string 'IN'.

SQL QUERY

SELECT

first\_name || ' ' || last\_name AS full\_name,email

FROM Employees

WHERE LOWER(email) LIKE '%in%';

QUERY NO – 4

Create a list of 'smallest' last name and the 'highest' last name from the employees table.

SQL QUERY

SELECT

MIN(last\_name) AS smallest\_last\_name,

MAX(last\_name) AS highest\_last\_name

FROM Employees;

QUERY NO – 5

Create a list of weekly salaries from the employees table where the weekly salary is between 700 and 3000 − The salaries should be formatted to include a $- sign and have two decimal points like: $9999.99.

SQL QUERY

SELECT TO\_CHAR(weekly\_salary, '$9999.99') AS "Formatted Weekly Salary"

FROM Employees

WHERE weekly\_salary BETWEEN 700 AND 3000;

QUERY NO – 6

Create a list of every employee and his related job title sorted by job\_title.

SQL QUERY

SELECT e.first\_name || ' ' || e.last\_name AS "Employee Name", j.job\_title AS "Job Title"

FROM Employees e

JOIN Jobs j ON e.job\_id = j.job\_id

ORDER BY j.job\_title;

QUERY NO – 7

−Create a list of every employee’s job, the salary ranges within the job, and the employee's salary

−List the lowest and highest salary range within each job with a dash to separate the salaries like this: 100 – 200

SQL QUERY

SELECT j.job\_title AS "Job Title", j.min\_salary || ' – ' || j.max\_salary AS "Salary Range", e.salary AS "Employee Salary"

FROM Employees e

JOIN Jobs j ON e.job\_id = j.job\_id

ORDER BY j.job\_title;

QUERY NO – 8

Using an ANSII join method, create a list of every employee's first initial and last name, and department name − Make sure the tables are joined on all of the foreign keys declared between the two tables.

SQL QUERY

SELECT SUBSTR(e.first\_name, 1, 1) || ' ' || e.last\_name AS "Employee Name", d.department\_name AS "Department Name"

FROM Employees e

JOIN Departments d ON e.department\_id = d.department\_id;

QUERY NO – 9

Change the previous listing to join only on the department\_id column.

SQL QUERY

SELECT SUBSTR(e.first\_name, 1, 1) || ' ' || e.last\_name AS "Employee Name", d.department\_name AS "Department Name"

FROM Employees e

JOIN Departments d ON e.department\_id = d.department\_id;

QUERY NO – 10

− Create a list of every employee's last name, and the word nobody or somebody depending on whether or not the employee has a manager.

− Use the Oracle DECODE function to create the list.

SQL QUERY

SELECT last\_name, DECODE(manager\_id, NULL, 'nobody', 'somebody') AS "Manager Status"

FROM Employees;

QUERY NO – 11

Create a list of every employee's first initial and last name, salary, and a yes or no to show whether or not an employee makes a commission.

− Fix this query to produce the result.

SQL QUERY

SELECT SUBSTR(first\_name, 1, 1) || ' ' || last\_name AS "Employee Name", salary, DECODE(commission\_pct, NULL, 'no', 'yes') AS "Commission Status"

FROM Employees;

QUERY NO – 12

Create a list of every employee's last name, department name, city, and state\_province.

–Include departments without employees − An outer join is required.

SQL QUERY

SELECT e.last\_name AS "Last Name", d.department\_name AS "Department Name", [l.city](http://l.city/) AS "City", l.state\_province AS "State/Province"

FROM Departments d LEFT JOIN Employees e ON d.department\_id = e.department\_id LEFT JOIN Locations l ON d.location\_id = l.location\_id

ORDER BY d.department\_name;

QUERY NO - 13

−Create a list of every employee's first and last names, and the first occurrence of: commission\_pct, manager\_id, or -1.

−If an employee gets commission, display the commission\_pct column; if no commission, then display his manager\_id; if he has neither commission nor manager, then the number -1.

SQL QUERY

SELECT first\_name, last\_name, COALESCE(commission\_pct, manager\_id, -1) AS "First Occurrence"

FROM Employees;

QUERY NO – 14

Create a list of every employee's last name, salary, and job\_grade for all employees working in departments with a department\_id greater than 50.

SQL QUERY

SELECT e.last\_name AS "Last Name", e.salary AS "Salary", j.job\_grade AS "Job Grade"

FROM Employees e JOIN job\_grades j ON e.job\_grade = j.job\_grade WHERE e.department\_id > 50;

QUERY NO – 15

Produce a list of every employee's last name and department name − Include both employees without departments, and departments without employees.

SQL QUERY

SELECT e.last\_name AS "Last Name", d.department\_name AS "Department Name"

FROM Employees e

FULL OUTER JOIN Departments d ON e.department\_id = d.department\_id

ORDER BY e.last\_name, d.department\_name;

QUERY NO – 16

−Create a treewalking list of every employee's last name, his manager’s last name, and his position in the company.

−The top level manager has position 1, this manager's subordinates position 2, their subordinates position 3, and so on −Start the listing with employee number 100.

SQL QUERY

WITH RECURSIVE EmployeeHierarchy AS ( -- Anchor member: Start with employee number 100

SELECT e.employee\_id, e.last\_name AS employee\_last\_name, e.manager\_id, (CASE WHEN e.employee\_id = 100 THEN 1 ELSE 0 END) AS position FROM Employees e

WHERE e.employee\_id = 100 UNION ALL -- Recursive member: Get employees under the current employee

SELECT e.employee\_id, e.last\_name AS employee\_last\_name, e.manager\_id, position + 1

FROM Employees e

INNER JOIN EmployeeHierarchy eh ON e.manager\_id = eh.employee\_id )

SELECT eh.employee\_last\_name AS "Employee Last Name", (SELECT last\_name

FROM Employees

WHERE employee\_id = eh.manager\_id) AS "Manager Last Name", eh.position AS "Position"

FROM EmployeeHierarchy eh

ORDER BY eh.position, eh.employee\_last\_name;

QUERY NO – 17

Produce a list of the earliest hire date, the latest hire date, and the number of employees from the employees table.

SQL QUERY

SELECT MIN(hire\_date) AS "Earliest Hire Date",

MAX(hire\_date) AS "Latest Hire Date",

COUNT(\*) AS "Number of Employees"

FROM Employees;

QUERY NO – 18

− Create a list of department names and the departmental costs (salaries added up).

− Include only departments whose salary costs are between 15000 and 31000, and sort the listing by the cost.

SQL QUERY

SELECT d.department\_name AS "Department Name", SUM(e.salary) AS "Department Cost"

FROM Departments d

JOIN Employees e ON d.department\_id = e.department\_id GROUP BY d.department\_name HAVING SUM(e.salary) BETWEEN 15000 AND 31000

ORDER BY "Department Cost";

QUERY NO – 19

Create a list of department names, the manager id, manager name (employee last name) of that department, and the average salary in each department.

SQL QUERY

SELECT d.department\_name AS "Department Name", d.manager\_id AS "Manager ID", e.last\_name AS "Manager Name", AVG(e2.salary) AS "Average Salary"

FROM Departments d

LEFT JOIN Employees e ON d.manager\_id = e.employee\_id LEFT JOIN Employees e2 ON d.department\_id = e2.department\_id

GROUP BY d.department\_name, d.manager\_id, e.last\_name

ORDER BY d.department\_name;

QUERY NO – 20

− Show the highest average salary for the departments in the employees table.

− Round the result to the nearest whole number.

SQL QUERY

SELECT ROUND(MAX(avg\_salary)) AS "Highest Average Salary"

FROM ( SELECT department\_id, AVG(salary) AS avg\_salary

FROM Employees

GROUP BY department\_id );

QUERY NO – 21

Create a list of department names and their monthly costs (salaries added up).

SQL QUERY

SELECT d.department\_name AS "Department Name", SUM(e.salary) AS "Monthly Cost" FROM Departments d

JOIN Employees e ON d.department\_id = e.department\_id

GROUP BY d.department\_name

ORDER BY d.department\_name;

QUERY NO – 22

− Create a list of department names, and job\_ids.

− Calculate the monthly salary cost for each job\_id within a department, for each department, and for all departments added together.

SQL QUERY

WITH MonthlyCosts AS ( SELECT d.department\_name AS "Department Name", e.job\_id AS "Job ID", SUM(e.salary) AS "Monthly Salary Cost"

FROM Departments d

JOIN Employees e ON d.department\_id = e.department\_id

GROUP BY d.department\_name, e.job\_id ) SELECT "Department Name", "Job ID", "Monthly Salary Cost" FROM MonthlyCosts UNION ALL

SELECT 'Total' AS "Department Name", NULL AS "Job ID", SUM("Monthly Salary Cost") AS "Monthly Salary Cost"

FROM MonthlyCosts

ORDER BY "Department Name", "Job ID";

QUERY NO -23

−Create a list of department names, and job\_ids.

−Calculate the monthly salary cost for each job\_id within a department, for each department, for each group of job\_ids irrespective of the department, and for all departments added together (Hint: Cube).

SQL QUERY

SELECT d.department\_name AS "Department Name", e.job\_id AS "Job ID", SUM(e.salary) AS "Monthly Salary Cost"

FROM Departments d JOIN Employees e ON d.department\_id = e.department\_id

GROUP BY CUBE (d.department\_name, e.job\_id)

ORDER BY d.department\_name, e.job\_id;

QUERY NO – 24

Expand the previous list to also show if the department\_id or job\_id was used to create the subtotals shown in the output (Hint: Cube, Grouping).

SQL QUERY

SELECT d.department\_name AS "Department Name", e.job\_id AS "Job ID", SUM(e.salary) AS "Monthly Salary Cost", CASE WHEN GROUPING(d.department\_name) = 1 THEN 'Total for Job ID' WHEN GROUPING(e.job\_id) = 1 THEN 'Total for Department' ELSE 'Detail' END AS "Subtotal Type"

FROM Departments d JOIN Employees e ON d.department\_id = e.department\_id

GROUP BY CUBE (d.department\_name, e.job\_id)

ORDER BY d.department\_name, e.job\_id;

QUERY NO - 25

− Create a list that includes the monthly salary costs for each job title within a department.

− In the same list, display the monthly salary cost per city. (Hint: Grouping Sets).

SQL QUERY

SELECT d.department\_name AS "Department Name", e.job\_id AS "Job ID", [l.city](http://l.city/) AS "City", SUM(e.salary) AS "Monthly Salary Cost" FROM Employees e JOIN Departments d ON e.department\_id = d.department\_id JOIN Locations l ON d.location\_id = l.location\_id GROUP BY GROUPING SETS ( (d.department\_name, e.job\_id), -- Group by department and job title ([l.city](http://l.city/)) -- Group by city )

ORDER BY "Department Name", "Job ID", "City";

QUERY NO – 26

−Create a list of employee names as shown and department ids −In the same report, list the department ids and department names. And finally, list the cities .

−The rows should not be joined, just listed in the same report. (Hint: Union).

SQL QUERY

SELECT e.first\_name || ' ' || e.last\_name AS "Employee Name", e.department\_id AS "Department ID", NULL AS "Department Name", NULL AS "City"

FROM Employees e UNION ALL -- List of department IDs and department names

SELECT NULL AS "Employee Name", d.department\_id AS "Department ID", d.department\_name AS "Department Name", NULL AS "City"

FROM Departments d UNION ALL -- List of cities

SELECT NULL AS "Employee Name", NULL AS "Department ID", NULL AS "Department Name", [l.city](http://l.city/) AS "City" FROM Locations l;

QUERY NO – 27

Create a list of each employee's first initial and last name, salary, and department name for each employee earning more than the average for his department.

SQL QUERY

SELECT SUBSTR(e.first\_name, 1, 1) || ' ' || e.last\_name AS "Employee Name", e.salary AS "Salary", d.department\_name AS "Department Name"

FROM Employees e JOIN Departments d ON e.department\_id = d.department\_id

WHERE e.salary > ( SELECT AVG(e2.salary) FROM Employees e2 WHERE e2.department\_id = e.department\_id )

ORDER BY d.department\_name, e.last\_name;