**Basic SELECT statements – Exercises\_V2**

1. Create a query to display all the data from the *Employees* table.

SELECT \*

FROM TBLEMPLOYEES;

1. The following SELECT statement executes successfully (True / **False**)

|  |  |
| --- | --- |
| 1  2 | FROM employees  SELECT last\_name, first\_name |

1. Create a query to display the department number, department name, and manager number. Name the last column (manager number) heading as “MNG” (*Employees* table).

SELECT DEPARTMENT\_ID, DEPARTMENT\_NAME, MANAGER\_ID

FROM TBLDEPARTMENTS;

1. The following SELECT statement executes successfully (**True** / False)

|  |  |
| --- | --- |
| 1  2 | SELECT department\_name, department\_name  FROM departments |

1. The following SELECT statement executes successfully (True / **False**)

|  |  |
| --- | --- |
| 1 | SeleCT last\_NAME, fiRST\_NamE, FROM Employees |

1. Create a query to display the employee number, first name, last name, phone number and department number (*Employees*table).

SELECT EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME ,

PHONE\_NUMBER , DEPARTMENT\_ID

FROM TBLEMPLOYEES;

1. Create a query to display the first name, last name, hire date, salary, and salary after a raise of 20%. Name the last column (salary after a raise) heading as “ANNUAL\_SAL” (*Employees* table).

SELECT FIRST\_NAME, LAST\_NAME ,HIRE\_DATE , SALARY, 1.2\*SALARY AS ANNUAL\_SAL

FROM TBLEMPLOYEES;

1. Create a query to display the last name concatenated with the first name, separated by space, and the telephone number concatenated with the email address, separated by hyphen. Name the column headings “FULL\_NAME” and “CONTACT\_DETAILS” respectively (*Employees* tables).

SELECT LAST\_NAME || ' ' || FIRST\_NAME AS FULL\_NAME , PHONE\_NUMBER ||' '|| EMAIL AS CONTACT\_DETAILS

FROM TBLEMPLOYEES;

1. Create a query to display the unique manager numbers from *Employees* table.

SELECT DISTINCT MANAGER\_ID

FROM TBLEMPLOYEES;

1. Create a query to display the last name concatenated with *job\_id* column, separated by space. Name this column heading as “EMPLOYEE\_AND\_TITLE” (*Employees* table).

SELECT LAST\_NAME ||' '|| JOB\_ID AS EMPLOYEE\_AND\_TITLE

FROM TBLEMPLOYEES;

1. Create a query to display the first name, last name, salary, and hire date concatenated with the literal string “HD”, separated by space. Name the column headings “FN”, “LN”, “SAL”, and “HD” respectively (*Employees* table).

SELECT FIRST\_NAME FN, LAST\_NAME LN, SALARY SAL , HIRE\_DATE||' HD' AS HD

FROM TBLEMPLOYEES;

1. Create a query to display the unique salaries in *Employees* tables.

SELECT DISTINCT SALARY

FROM TBLEMPLOYEES;

1. Create a query to display the unique combination of values in *department\_id* and *job\_id* columns (*Employees* table).

SELECT DISTINCT DEPARTMENT\_ID,JOB\_ID

FROM TBLEMPLOYEES;

**Practice SQL WHERE Clause\_V2**

**Exercises**

1. Display the first name and department number for all customers whose last name is “De Haan” (*Employees* table).

SELECT FIRST\_NAME,DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE UPPER(LAST\_NAME) = 'DE HAAN';

1. Display all data from *Departments* table for Sales department (*department\_name* column).

SELECT \*

FROM TBLDEPARTMENTS

WHERE UPPER(DEPARTMENT\_NAME) = 'SALES';

1. Display the first name, last\_name, department number and salary for all employees who earn more than 9700 (*Employees* table).

SELECT FIRST\_NAME, LAST\_NAME, DEPARTMENT\_ID, SALARY

FROM TBLEMPLOYEES

WHERE SALARY>9700;

1. Display all data from *Employees* table for all employees who was hired before January 1st, 1992.

SELECT FIRST\_NAME, LAST\_NAME, DEPARTMENT\_ID, SALARY

FROM TBLEMPLOYEES

WHERE HIRE\_DATE < '01-Jan-1992';

1. Display the employee number, first name, job id and department number for all employees whose department number equals 20, 60 or 80 (*Employees* table).

SELECT EMPLOYEE\_ID, FIRST\_NAME, JOB\_ID, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID IN(20,60,80);

1. Display the employee number, first name, job id and department number for all employees whose department number is not equal to 20, 60 and 80 (*Employees* table).

SELECT EMPLOYEE\_ID, FIRST\_NAME, JOB\_ID, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID NOT IN(20,60,80);

1. Display the last name, phone number, salary and manager number, for all employees whose manager number equals 100, 102 or 103 (*Employees* table).

SELECT LAST\_NAME, PHONE\_NUMBER,SALARY, MANAGER\_ID

FROM TBLEMPLOYEES

WHERE MANAGER\_ID IN(100,102,103);

1. Display the first name and salary for all employees whose first name ends with an *e*(*Employees* table).

SELECT FIRST\_NAME,SALARY

FROM TBLEMPLOYEES

WHERE FIRST\_NAME LIKE '%e';

1. Display the last name and department number for all employees where the second letter in their last name is *i* (*Employees* table).

SELECT LAST\_NAME, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE LAST\_NAME LIKE '\_i%';

1. Display all data from *Employees* table for all employees who have the letters : L, J, or H in their last name. Sort the query in descending order by salary.

SELECT \*

FROM TBLEMPLOYEES

WHERE REGEXP\_LIKE(UPPER(LAST\_NAME),'+[LJH]+');

1. Display the first name, hire date, salary and department number for all employees whose first name doesn’t have the letter *A*. Sort the query in ascending order by department number (*Employees* table).

SELECT FIRST\_NAME, HIRE\_DATE, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE FIRST\_NAME NOT LIKE '%a%'

ORDER BY DEPARTMENT\_ID;

1. Display all data from *Employees* table for all employees without any department number.

SELECT \*

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID IS NULL;

1. Display the first name concatenated with the last name, separated by comma, and salary, for all employees whose salary not in the range between 7000 and 15000. Sort the query in ascending order by the full name (*Employees* table).

SELECT FIRST\_NAME||','||LAST\_NAME FULL\_NAME, SALARY

FROM TBLEMPLOYEES

WHERE SALARY NOT BETWEEN 7000 AND 15000

ORDER BY FULL\_NAME ASC;

1. Display the first name concatenated with the last name, separated by comma, the phone number concatenated with the email address, separated by hyphen, and salary, for all employees whose salary is in the range of 5000 and 10000. Name the column headings: “FULL\_NAME”, “CONTACTS” and “SAL” respectively (*Employees* table).

SELECT FIRST\_NAME||','||LAST\_NAME FULL\_NAME, PHONE\_NUMBER||'-'||EMAIL

CONTACTS, SALARY SAL

FROM TBLEMPLOYEES

WHERE SALARY BETWEEN 5000 AND 10000;

1. Display all data from *Employees* table for all employees whose:  
   salary is in the range of 6000 and 8000 **and** their commission is not null **or**department number is not equal to 80, 90 and 100 **and** their hire date is before January 1st, 1990.

SELECT \*

FROM TBLEMPLOYEES

WHERE ( SALARY BETWEEN 6000 AND 8000 AND COMMISSION\_PCT IS NOT NULL)

OR (DEPARTMENT\_ID NOT IN (80,90,100) AND HIRE\_DATE < '01-JAN-1990');

1. Display last name, job id and hire date for all employees who was hired during December 12th, 1995 and April 17th, 1998.

SELECT LAST\_NAME, JOB\_ID, HIRE\_DATE

FROM TBLEMPLOYEES

WHERE HIRE\_DATE BETWEEN '12-DEC-1995' AND '17-APR-1998';

1. Display the first name concatenated with last name, hire date, commission percentage, telephone, and salary for all employees whose salary is greater than 10000 **or** the third digit in their phone number equals 5. Sort the query in a descending order by the first name (*Employees* table).

SELECT FIRST\_NAME||' '||LAST\_NAME FULL\_NAME, HIRE\_DATE, COMMISSION\_PCT,

PHONE\_NUMBER, SALARY

FROM TBLEMPLOYEES

WHERE SALARY>10000

OR PHONE\_NUMBER LIKE '\_\_5%';

1. Display the last name and salary for all employees who earn more than 12000 (*Employees* table).

SELECT LAST\_NAME, SALARY

FROM TBLEMPLOYEES

WHERE SALARY>12000;

1. Display the last name and department number for all employees whose department number is equal to 50 or 80. Perform this exercise once by using the IN operator, once by using the OR operator.

SELECT LAST\_NAME, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID IN(50,80);

SELECT LAST\_NAME, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID = 50

OR DEPARTMENT\_ID = 80;

1. Display the first name and salary for all employees who doesn’t earn any commission.

SELECT FIRST\_NAME, SALARY

FROM TBLEMPLOYEES

WHERE COMMISSION\_PCT IS NULL;

1. Display the first name, salary, and manager number for all employees whose manager number is not null.

SELECT FIRST\_NAME, SALARY, MANAGER\_ID

FROM TBLEMPLOYEES

WHERE MANAGER\_ID IS NOT NULL;

**Practice SQL Scalar Functions\_V2**

**String Functions Practice**

1. Display the first name in lower case and last name in upper case, for all employees whose employee number is in the range between 80 and 150.

SELECT LOWER(FIRST\_NAME), UPPER(LAST\_NAME)

FROM TBLEMPLOYEES

WHERE EMPLOYEE\_ID BETWEEN 80 AND 150;

1. Display the first name and last name for all employees whose family name is King, perform this exercise with a case-insensitive search (regardless of the capitalization used for the values within *last name* column).

SELECT FIRST\_NAME, LAST\_NAME

FROM TBLEMPLOYEES

WHERE UPPER(LAST\_NAME) = 'KING';

1. Generating new email address
   1. For each employee, display the first name, last name, and email address. The email address will be composed from the first letter of first name, concatenated with the three first letters of last name, concatenated with *@oracle.com*.

SELECT FIRST\_NAME, LAST\_NAME,

SUBSTR(FIRST\_NAME,1,1)||SUBSTR(LAST\_NAME,1,3)||'@oracle.com' EMAIL

FROM TBLEMPLOYEES ;

* 1. For each employee, display the first name, last name, and email address. The email address will be composed from the first letter of first name, concatenated with the three last letters of last name, concatenated with *@oracle.com*.

SELECT FIRST\_NAME, LAST\_NAME,

SUBSTR(FIRST\_NAME,1,1)||SUBSTR(LAST\_NAME,-3)||'@oracle.com' EMAIL

FROM TBLEMPLOYEES ;

1. Using the CONCAT function
   1. For each employee, use the CONCAT function to display the first name concatenated with the last name.

SELECT CONCAT(FIRST\_NAME,LAST\_NAME)

FROM TBLEMPLOYEES ;

* 1. For each employee, use the CONCAT function to display the first name concatenated with the last name, concatenated with hire date.

SELECT CONCAT(FIRST\_NAME,CONCAT(LAST\_NAME,HIRE\_DATE))

FROM TBLEMPLOYEES ;

1. Display the last name for all employees where last name’s length is greater than 8 characters.

SELECT LAST\_NAME

FROM TBLEMPLOYEES

WHERE LENGTH(LAST\_NAME) > 8;

1. Phone numbers:
   1. For each employee, display the first name, last name, phone number and a new phone number using the REPLACE function. in the new phone number replace all occurrences of *515* with *815.*

SELECT FIRST\_NAME, LAST\_NAME, PHONE\_NUMBER,

REPLACE(PHONE\_NUMBER,'515','815') NEW\_PHONE\_NUMBER

FROM TBLEMPLOYEES ;

* 1. For each employee, display the first name, last name, phone number and a new phone number using the REPLACE function. in the new phone number replace all prefixes of *515* with *815.*

SELECT FIRST\_NAME, LAST\_NAME, PHONE\_NUMBER,

REPLACE(SUBSTR(PHONE\_NUMBER,1,3),'515','815')||SUBSTR(PHONE\_NUMBER

,4) NEW\_PHONE\_NUMBER

FROM TBLEMPLOYEES ;

**Numeric Functions Practice**

1. For each employee, display :
   1. first name
   2. salary
   3. salary after a raise of 12%
   4. salary after a raise of 12%,  expressed as a whole number (ROUND).
   5. salary after a raise of 12%, round down to the nearest whole number.

SELECT FIRST\_NAME,

SALARY,

SALARY\*1.12,

ROUND(SALARY\*1.12),

TRUNC(SALARY\*1.12)

FROM TBLEMPLOYEES;

**Date Functions Practice**

1. For each employee, display the first name, hire date, hire date minus 10 days, hire date plus one month, and the day difference between current date and hire date.

SELECT FIRST\_NAME, HIRE\_DATE, HIRE\_DATE-10,

ADD\_MONTHS(HIRE\_DATE,1),SYSDATE - HIRE\_DATE+1

FROM TBLEMPLOYEES;

1. For each employee, display the first name, last name, hire date, number of months he works in the company, and number of years he works in the company.

SELECT FIRST\_NAME, LAST\_NAME, HIRE\_DATE, TRUNC(MONTHS\_BETWEEN(SYSDATE,

HIRE\_DATE)), TRUNC(MONTHS\_BETWEEN(SYSDATE, HIRE\_DATE)/12)

FROM TBLEMPLOYEES;

1. For each employee, display the first name, hire date, and hire date plus one year.

SELECT FIRST\_NAME, LAST\_NAME, HIRE\_DATE, ADD\_MONTHS(HIRE\_DATE,12)

FROM TBLEMPLOYEES;

1. For each employee, display the first name, hire date, hire date rounded up to the nearest year, and hire date rounded up to the nearest month.

SELECT FIRST\_NAME, HIRE\_DATE, ROUND(HIRE\_DATE,'YEAR'),

ROUND(HIRE\_DATE,'MONTH')

FROM TBLEMPLOYEES;

**Conversion Functions Practice**

1. For each employee, display the first name, the day of his hire date, and the year of his hire date.

SELECT FIRST\_NAME, TO\_CHAR(HIRE\_DATE,'D , DD, DDD, DAY, DY') ,

TO\_CHAR(HIRE\_DATE,'YYYY, YEAR')

FROM TBLEMPLOYEES;

1. Display the last name in upper case, the salary in format model : ‘9,999.999’, and hire date in format model: ‘DD/MM/YYYY’, for all employees whose last name begins with the letter *D* or *K*.

SELECT UPPER(LAST\_NAME), TO\_CHAR(SALARY,'99,999.999'),

TO\_CHAR(HIRE\_DATE,'DD/MM/YYYY')

FROM TBLEMPLOYEES

WHERE SUBSTR(UPPER(LAST\_NAME),1,1) IN ('D','K');

**NULL-Related Functions Practice**

1. Commission Percentage
   1. For each employee, display the first name, last name, salary and commission percentage. If an employee doesn’t earn a commission, display 0 instead of NULL.

SELECT FIRST\_NAME, LAST\_NAME, SALARY, NVL(COMMISSION\_PCT,0)

FROM TBLEMPLOYEES;

* 1. For each employee, display the first name, last name, salary and commission percentage. If an employee doesn’t earn a commission, display “No Commission” instead of NULL.

SELECT FIRST\_NAME, LAST\_NAME, SALARY,

REPLACE(NVL(COMMISSION\_PCT,0),0,'No Commission')

FROM TBLEMPLOYEES;

**Case Function Practice**

1. For each employee, display the first name, last name, salary, and a salary grade based on these conditions:
   1. if the salary is between 0 and 5000 – salary grade level is A
   2. if the salary is between 5001 and 15000 – salary grade level is B
   3. if the salary is between 15001 and 20000 – salary grade level is C
   4. for any other range – salary grade level is D

SELECT FIRST\_NAME, LAST\_NAME, SALARY,

( CASE

WHEN SALARY BETWEEN 0 AND 5000 THEN 'A'

WHEN SALARY BETWEEN 5001 AND 15000 THEN 'B'

WHEN SALARY BETWEEN 15001 AND 20000 THEN 'C'

ELSE 'D'

END) SALARY\_GRADE

FROM TBLEMPLOYEES;

**Practice SQL Group Functions\_V2**

Part 1 – Basic Usage

1. Display the lowest last name alphabetically (*Employees* table).

SELECT MIN(LAST\_NAME)

FROM TBLEMPLOYEES;

1. Display the highest last name alphabetically (*Employees* table).

SELECT MAX(LAST\_NAME)

FROM TBLEMPLOYEES;

1. Display the number of rows in *Employees* table.

SELECT COUNT(\*)

FROM TBLEMPLOYEES;

1. Display the number of values (exclude NULLs) in commission\_pct column (*Employees* table).

SELECT COUNT(\*)

FROM TBLEMPLOYEES

WHERE COMMISSION\_PCT IS NOT NULL;

1. Display the number of NULL values in commission\_pct column (Employees table).

SELECT COUNT(\*)

FROM TBLEMPLOYEES

WHERE COMMISSION\_PCT IS NULL;Display the highest, lowest, and average salary.

Part 2 – GROUP BY and HAVING clauses

1. Average salary per department
   1. Display the department number and average salary for each department.

SELECT DEPARTMENT\_ID,AVG(SALARY)

FROM TBLEMPLOYEES

GROUP BY DEPARTMENT\_ID;

* 1. Modify your query to display the results only for departments 50 or 80.

SELECT DEPARTMENT\_ID,AVG(SALARY)

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID IN(50,80)

GROUP BY DEPARTMENT\_ID;

1. Numer of employees per job id
   1. Display the job id and the number of employees for each job id.

SELECT JOB\_ID,COUNT(\*)

FROM TBLEMPLOYEES

GROUP BY JOB\_ID;

* 1. Modify your query to display the results only for employees whose salary is greater the 10000.

SELECT JOB\_ID,COUNT(\*)

FROM TBLEMPLOYEES

WHERE SALARY>10000

GROUP BY JOB\_ID;

* 1. Modify your query again, this time display the results only for jobs with more than 2 people.

SELECT JOB\_ID,COUNT(\*)

FROM TBLEMPLOYEES

WHERE SALARY>10000

GROUP BY JOB\_ID

HAVING COUNT(\*)>2;

1. Display the department number, job id, and the average salary for each department and job id.

SELECT DEPARTMENT\_ID, JOB\_ID ,AVG(SALARY)

FROM TBLEMPLOYEES

GROUP BY DEPARTMENT\_ID,JOB\_ID;

1. Managers and highest salary
   1. Display the manager number and the highest salary for each manager number.

SELECT MANAGER\_ID, MAX(SALARY)

FROM TBLEMPLOYEES

GROUP BY MANAGER\_ID;

* 1. Modify your query to display the results only for employees whose salary is greater than 10000.

SELECT MANAGER\_ID, MAX(SALARY)

FROM TBLEMPLOYEES

WHERE SALARY >10000

GROUP BY MANAGER\_ID;

1. Display the job id and minimum salary for each job id, for all jobs whose minimum salary is greater than 7000.

SELECT JOB\_ID, MIN(SALARY)

FROM TBLEMPLOYEES

GROUP BY JOB\_ID

HAVING MIN(SALARY) >7000;

1. Display the department number, and the average salary for each department, for all departments whose number is in the range of 20 and 80, and their average salary is greater than 9000.

SELECT DEPARTMENT\_ID, AVG(SALARY)

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID IN (20,80)

GROUP BY DEPARTMENT\_ID

HAVING AVG(SALARY) > 9000;

**Practice SQL JOIN Methods\_V2**

**Inner JOIN Practice**

1. Employees and departments  (*Employees* & *Departments* tables)
   1. For each employee, display the first name, last name, department number and department name.

SELECT E.FIRST\_NAME, E.LAST\_NAME, D.DEPARTMENT\_ID,

D.DEPARTMENT\_NAME

FROM TBLEMPLOYEES E JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID;

* 1. Display the first name, last name, department number and department name, for all employees in departments 50 or 90.

SELECT E.FIRST\_NAME, E.LAST\_NAME, D.DEPARTMENT\_ID,

D.DEPARTMENT\_NAME

FROM TBLEMPLOYEES E JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID

AND D.DEPARTMENT\_ID IN (50,90);

1. Departments and locations (*Departments*, Employees & *Locations* tables)
   1. For each department, display the department name, city, and state province.

SELECT DEPARTMENT\_NAME, CITY, STATE\_PROVINCE

FROM TBLDEPARTMENTS D JOIN TBLLOCATIONS L

ON D.LOCATION\_ID = L.LOCATION\_ID;

* 1. For each employee, display the full name, department name, city, and state province.

SELECT FIRST\_NAME, LAST\_NAME,

DEPARTMENT\_NAME, CITY, STATE\_PROVINCE

FROM TBLEMPLOYEES E JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID

JOIN TBLLOCATIONS L

ON D.LOCATION\_ID = L.LOCATION\_ID;

* 1. Display the full name, department name, city, and state province, for all employees whose last name contains the letter *a*.

SELECT FIRST\_NAME, LAST\_NAME,

DEPARTMENT\_NAME, CITY, STATE\_PROVINCE

FROM TBLEMPLOYEES E JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID

JOIN TBLLOCATIONS L

ON D.LOCATION\_ID = L.LOCATION\_ID

WHERE UPPER(LAST\_NAME) LIKE '%A%';

**None Equi JOIN Practice**

1. For each employee, display the first name, salary, and job grade (*Employees* & *Job\_Grades* tables)

SELECT FIRST\_NAME, SALARY, GRADE\_NAME

FROM TBLEMPLOYEES JOIN TBLJOBGRADES G

ON SALARY BETWEEN G.MIN\_PRICE AND G.MAX\_PRICE;

**Outer JOIN Practice**

1. Employees & departments
   1. Display the first name, last name, department number and department name, for all employees including those without any department.

SELECT FIRST\_NAME, LAST\_NAME, E.DEPARTMENT\_ID,

DEPARTMENT\_NAME

FROM TBLEMPLOYEES E LEFT OUTER JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID;

* 1. Modify your query to display all departments including departments without any employees.

SELECT FIRST\_NAME, LAST\_NAME, D.DEPARTMENT\_ID,

DEPARTMENT\_NAME

FROM TBLEMPLOYEES E RIGHT OUTER JOIN

TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID;

**Self JOIN Practice**

1. Employees and managers (*Employees* table)
   1. For each employee, display the last name, and the manager’s last name.

SELECT E.LAST\_NAME, M.LAST\_NAME

FROM TBLEMPLOYEES E JOIN TBLEMPLOYEES M

ON E.MANAGER\_ID = M.EMPLOYEE\_ID;

* 1. Modify your query to display all employees including those without any manager.

SELECT E.LAST\_NAME, M.LAST\_NAME

FROM TBLEMPLOYEES E LEFT OUTER JOIN TBLEMPLOYEES M

ON E.MANAGER\_ID = M.EMPLOYEE\_ID;

1. Display the first name, last name, and department number for all employees who work in the same department as employee whose last name is “King”.

SELECT E.FIRST\_NAME , E.LAST\_NAME, E.DEPARTMENT\_ID

FROM TBLEMPLOYEES E, TBLEMPLOYEES K

WHERE UPPER(K.LAST\_NAME) = 'KING'

AND E.DEPARTMENT\_ID = K.DEPARTMENT\_ID;

1. Display the last name and salary for all employees who earn less than employee number 103.

SELECT E.FIRST\_NAME , E.SALARY

FROM TBLEMPLOYEES E JOIN TBLEMPLOYEES E103 ON

E.SALARY < E103.SALARY

AND E103.EMPLOYEE\_ID = 103;

Practice SQL Subqueries\_V2

**SQL Subqueries Practice**

1. Display the first name and salary for all employees who earn more than employee number 103 (*Employees* table).

SELECT FIRST\_NAME , SALARY

FROM TBLEMPLOYEES

WHERE SALARY >

(SELECT SALARY

FROM TBLEMPLOYEES

WHERE EMPLOYEE\_ID = 103);

1. Display the department number and department name for all departments whose location number is equal to the location number of department number 90 (*Departments* table).

SELECT DEPARTMENT\_ID, DEPARTMENT\_NAME

FROM TBLDEPARTMENTS

WHERE LOCATION\_ID =

(SELECT LOCATION\_ID

FROM TBLDEPARTMENTS

WHERE DEPARTMENT\_ID = 90);

1. Display the last name and hire date for all employees who was hired after employee number 101 (*Employees* table).

SELECT LAST\_NAME, HIRE\_DATE

FROM TBLEMPLOYEES

WHERE HIRE\_DATE >

(SELECT HIRE\_DATE

FROM TBLEMPLOYEES

WHERE EMPLOYEE\_ID = 101);

1. Display the first name, last name, and department number for all employees who work in Sales department (*Employees* and *Departments* table).

SELECT FIRST\_NAME, LAST\_NAME, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID =

(SELECT DEPARTMENT\_ID

FROM TBLDEPARTMENTS

WHERE UPPER(DEPARTMENT\_NAME) = 'SALES');

1. Display the department number and department name for all departments located in Toronto (*Departments* table).

SELECT DEPARTMENT\_ID, DEPARTMENT\_NAME

FROM TBLDEPARTMENTS

WHERE LOCATION\_ID =

(SELECT LOCATION\_ID

FROM TBLLOCATIONS

WHERE UPPER(CITY) = 'TORONTO');

1. Display the first name, salary and department number for all employees who work in the department as employee number 124 (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID =

(SELECT DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE EMPLOYEE\_ID = 124);

1. Display the first name, salary, and department number for all employees who earn more than the average salary (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY >

(SELECT AVG(SALARY)

FROM TBLEMPLOYEES);

1. Display the first name, salary, and department number for all employees whose salary equals one of the salaries in department number 20 (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY IN

(SELECT SALARY

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID = 20);

1. Display the first name, salary, and department number for all employees who earn more than maximum salary in department number 50 (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY >

(SELECT MAX(SALARY)

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID = 50);

1. Display the first name, salary, and department number for all employees who earn more than the minimum salary in department number 60 (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY >

(SELECT MIN(SALARY)

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID = 60);

1. Display the first name, salary, and department number for all employees who earn less than the minimum salary of department number 90 (*Employees* table).

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY <

(SELECT MIN(SALARY)

FROM TBLEMPLOYEES

WHERE DEPARTMENT\_ID = 90);

1. Display the first name, salary and department number for all employees whose department is located Seattle (*Employees, Departments*and *Locations* table).

SELECT FIRST\_NAME, SALARY, D.DEPARTMENT\_ID

FROM TBLEMPLOYEES E JOIN TBLDEPARTMENTS D

ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID

AND D.LOCATION\_ID =

(SELECT LOCATION\_ID

FROM TBLLOCATIONS

WHERE UPPER(CITY) = 'SEATTLE');

1. Display the first name, salary, and department number for all employees who earn less than the average salary, and also work at the same department as employee whose first name is *Kevin*

SELECT FIRST\_NAME, SALARY, DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE SALARY <

(SELECT AVG(SALARY)

FROM TBLEMPLOYEES)

AND DEPARTMENT\_ID =

(SELECT DEPARTMENT\_ID

FROM TBLEMPLOYEES

WHERE UPPER(FIRST\_NAME) = 'KEVIN');