① 10 Examples of Subquery:-

Ex:- Employee table

Emp_ID	Emp_name	job_name	manager_id	hire_date	salary	commision	dep_id
150	Sarah	Consultant	1	05/04/2019	70000	0.00	100
242	Raaki	Programmer	2	11-05-2020	50000	0.00	200
315	Satya	Developer	3	14-03-201	40000	0.00	300
420	Tara	Analyst	4	08-12-2020	30000	0.00	400
530	Mani	Tester	5	19-08-2021	35000	0.00	500

① Query to display name for those employees who gets more salary than the employee whose Id is 530.

Select Emp_name from Employee where salary >
(Select salary from Employee where Emp_id = 530)

Output:

Emp_name
Sarah
Raaki
Satya

② find all Employees whose salaries are greater than the average salary of all employees.

Select Emp_ID, Emp_name, Salary from Employee where salary >
(Select AVG(salary) from Employee)

Output

Emp_ID	Emp_name	salary
150	Sarah	70000
242	Raaki	50000

③ find all employees, whose job. name (id, name, salary) Contains having second letter as 'e'.

Select Emp_ID, Emp.name, salary from Employee where salary IN (select salary from Employee where job_name LIKE '_e%.')

Emp_ID	Emp_name	Salary
~~252~~	~~Raaki~~	
315	Satya	40000
530	Mani	35000.

④ find department id & salary for all employees between dept_id 200 & 400

Select dep_id, ~~avg~~ salary from Employee where ~~salary IN~~ dep_id

(Select dep_id from Employee where dep_id. Between 200 and 400)

Emp_name	salary	dep_id
Raaki	50000	200
Satya	40000	300
Tara	30000	400

⑤ find a query for each employee along with average salary for all employees

select Emp_id, Emp.name, salary, (

select avg (salary) from Employee) AS. avg_salary

from Employee;

Emp.ID	Emp.name	salary	avg_salary
150	Sarah	70000	43000
212	Raaki	50000	43000
315	Satya	40000	43000
420	Tara	30000	43000
520	Mani	35000	43000

Ex:- Student Table:-

stu_ID	Name
V001	Matt
V002	Joe
V003	Glory
V004	Alex

Marks table

Stu_ID	Marks
V001	95
V002	80
V003	74
V004	81

⑥ Query to identify all students who get better marks than that of student whose student ID is 'V002'

Select a.student_ID, a.Name, b.Marks from Student a, Marks b

Where a.student_ID = b.stu_ID AND b.Marks > (

Select Marks from Marks Where stu_ID = 'V002');

o/p:

stu_ID	Name	Marks
V001	Matt	95
V004	Alex	81

⑦ To display Name, Marks, stu_ID of students from Marks table whose name is 'MATT'

Select Name, Marks, stu_ID. from Marks. where stu_ID IN

(Select stu_ID from Student Where Name = 'Matt').

o/p:

stu_ID	Name	Marks
V001	Matt	95

⑧

Select Name, Marks, stu_ID from Marks where stu_ID IN

(Select stu_ID from Student where Name = 'Joe')

o/p:

stu_ID	Name	Marks
V004	Alex	81

(9)

Select Name, stu-ID from Marks where stu-ID IN ..

(select stu-ID from Student where Name = 'Glory')

stu-ID	Name
V003	Glory

(10) Select Name, stu-ID, marks from Marks where Marks <

(Select Marks from Marks where stu-ID = 'V004')

Name	stu-ID	Marks
Joe	~~V003~~ V002	80
glory	V003	74

INNER join:- Return records that have matching value in both tables.

Ex:- ① Student

rollno	name	add	phno	age
1	abc	delhi	12345	19
2	pqr	hyd	67890	20
3	xyz	kerala	74321	21

② Course

courseid	rollno
101	1
201	2
301	3

*1) select student.name, student.age, Course.courseid from student inner join Course ON student.rollno = Course.rollno.

Output:

name	age	course id
abc	19	101
pqr	20	201
xyz	21	301.

2.) select student.add, student.phno, Course.courseid from student inner join Course ON student.rollno = Course.rollno

O/p:

add	phno	courseid.
delhi	12345	101
hyd	67890	201
kerala	74321	301.

3) select * from student inner join Course on Student.rollno = Course.rollno

rollno	name	add	phno	age	courseid	rollno
1	abc	delhi	12345	19	101	1
2	pqr	hyd	67890	20	201	2
3	xyz	kerala	74321	21	301	3

Left Outer join:

Returns all records from left table & matched records from right table

Ex: Select Student.name, Course.courseid. from student

left join Course ON Course.rollno = Student.rollno;

name	course id.
abc	101
pqr	201
xyz	301

② Select Emp_name, orderNumber from Employee LEFT JOIN Orders on Employee.emp_ID = Orders.ID;

Emp_name	OrderNumber
Sarah	1111
Raaki	2222
Satya	NULL
Tara	3333
Mani	NULL

③ Select stu_ID, Marks from student LEFT JOIN Marks on student.stu_ID = Marks.stu_ID.;

stu_ID	Marks
V001	95
V002	80
V003	74
V004	81
V005	NULL

Right Outer join: Returns all records from right table, & matched records from left table

Ex:- Select Student.name, Course.Courseid from Student Right JOIN Course ON student.rollno = Course.rollno;

name	Courseid
abc	101
pqr	201
xyz	301

Ex:- Select Emp_name, orderNumber from Employee RIGHT JOIN Orders on Employee.Emp_id = Orders.ID;

Emp_name	orderNumber
Sarah	1111
Raati	2222
Tara	3333

Ex:- Select stu-ID, Marks from student RIGHT JOIN Marks on Student.stu-ID = Marks.stu-ID

Stu-ID	Marks
V001	95
V002	80
V003	74
V004	81
NULL	90

Full Join :- Returns all records when there is a match in either left (or) right side table

Ex:- Select student.name, Course.Course_ID from student full JOIN Course ON Course.rollno = student.rollno.

name	courseid
abc	101
pqr	201
xyz	301

Ex:- Select Emp_name, orderNumber from Employee FULL JOIN Orders ON ~~Course.rollno~~ Employee.Emp_id = Order.ID.;

Emp_name	OrderNumber
Sarah	1111
Raaki	2222
Satya	NULL
Tara	3333
Mani	NULL

Ex:- Select stu_ID, Marks from student FULL JOIN Marks on student.stu_ID = Marks.stu_ID

stu_ID	Marks
V001	95
V002	80
V003	74
V004	81
NULL	NULL
NULL	90