SUBQUERIES IN SQL

CREATE DATABASE stl;

use stl;

CREATE TABLE Employee

(

id INT NOT NULL PRIMARY KEY,

fname CHAR(25),

lname CHAR(25),

age INT,

emailId CHAR(25),

PhoneNo INT,

City CHAR(25)

);

INSERT INTO Employee

(id,fname,lname,age,emailId,PhoneNo,City)VALUES

(1,'Aman','Proto',32,'aman@gmail.com',898,'Delhi'),

(2,'Yagya','Naryan',44,'yaga@gmail.com',222,'Palam'),

(3,'Rahul','BD',22,'rahul@gmail.com',444,'Kolkata'),

(4,'Jatin','Hermit',31,'jatin@gmail.com',666,'Raipur'),

(5,'PK','Pandey',21,'pk@gmail.com',555,'Jaipur');

CREATE TABLE Client

(

id INT NOT NULL PRIMARY KEY ,

first\_name CHAR(25),

last\_name CHAR(25),

age int,

emailid CHAR(25),

PhoneNo INT,

City CHAR(25),

empid INT,

FOREIGN KEY (empid)

REFERENCES Employee (id)

ON DELETE CASCADE

);

INSERT INTO Client

(id, first\_name,last\_name,age,emailID,PhoneNo,City,empid)VALUES

(1,'Mac','Rogers',47,'mac@hotmail.com',333,'Kolkata',3),

(2,'Max','Poirier',27,'max@hotmail.com',222,'Kolkata',3),

(3,'Peter','Jain',24,'peter@hotmail.com',111,'Delhi',1),

(4,'Sushant','Aggrawal',23,'sushant@hotmail.com',45454,'Hyderbad',5),

(5,'Pratap','Singh',36,'pratap@hotmail.com',77767,'Mumbai',2);

CREATE TABLE Project

(

id INT NOT NULL PRIMARY KEY,

name CHAR(25),

startdate CHAR(25),

empid INT,

clientid INT,

FOREIGN KEY (clientid)

REFERENCES Client (id)

ON DELETE CASCADE,

FOREIGN KEY (empid)

REFERENCES Employee (id)

ON DELETE CASCADE

);

INSERT INTO Project

(id,empid,name,startdate,clientid)VALUES

(1,1,'A','2021-04-21',3),

(2,2,'B','2021-03-12',1),

(3,3,'C','2021-01-16',5),

(4,3,'D','2021-04-27',2),

(5,5,'E','2021-05-01',4);

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-- SubQueries

-- WHERE Clause in same table

SELECT \* FROM Employee WHERE age>30;

select age from Employee where age>30;

SELECT \* FROM Employee where age in(select age from Employee where age>30);

-- WHERE Clause Differnet table

-- emp working on more than 1 project

SELECT \* FROM Employee where id in(select empid from Project group by empId having count(empId)>1);

-- single value Query

-- emp details having age more than avg age

select \* from Employee where age> (select avg(age) from Employee);

-------------------------------------------------

-- From Clause -- derived table

-- select max age person whose first name contains a

select max(age) from (select \* from Employee WHERE fname like '%a%') as temp;

select max(age) from Employee Where id IN(select id from Employee WHERE fname like '%a%');

select max(age) from Employee where fname like '%a%';

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-- Coreleated Query

-- Find 3rd oldest employee

SELECT \* FROM Employee as e1

WHERE 3=(

select COUNT(e2.age) from Employee as e2

WHERE e2.age>=e1.age

);

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