CORRELATED QUERIES FOR NESTED QUERIES & JOIN

HU22CSEN0100287

Sai Ganesh Eswaraprasad


```
Windows PowerShell

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\H-CSE-506-57> sqlplus hu22csen0100287/seswarap@//172.21.51.130:1521/orclpdb

SQL*Plus: Release 23.0.0.0.0 - Production on Wed Oct 9 10:20:33 2024
Version 23.4.0.24.05

Copyright (c) 1982, 2024, Oracle.  All rights reserved.

Last Successful login time: Wed Sep 25 2024 11:17:05 +05:30

Connected to:
Oracle Database 21c Enterprise Edition Release 21.0.0.0.0 - Production
Version 21.3.0.0.0

SQL> create table teacher (teacher_id number primary key, teacher_name varchar2(50));

Table created.

SQL> create table student (student_id number primary key, student_name varchar2(50), teacher_id number, foreign key (teacher_id) references teacher(teacher_id));

Table created.

SQL> insert into teacher (teacher_id, teacher_name) values (1, 'mr. smith');

1 row created.

SQL> insert into teacher (teacher_id, teacher_name) values (2, 'ms. johnson');

1 row created.

SQL> insert into student (student_id, student_name, teacher_id) values (1, 'alice', 1);

1 row created.

SQL> insert into student (student_id, student_name, teacher_id) values (2, 'bob', 2);

1 row created.

SQL> select student_name from student where teacher_id = all (select teacher_id from teacher where teacher_name like 'ms.%');

STUDENT_NAME
--------------------------------------------------
bob
```

```
SQL> select student_name from student where teacher_id = any (select teacher_id from teacher where teacher_name like 'mr.%');

STUDENT_NAME
--------------------------------------------------
alice

SQL> select student_name from student s where exists (select 1 from teacher t where t.teacher_id = s.teacher_id and t.teacher_name = 'mr. smith');

STUDENT_NAME
--------------------------------------------------
alice

SQL> select student_name from student s where not exists (select 1 from teacher t where t.teacher_id = s.teacher_id and t.teacher_name = 'ms. johnson');

STUDENT_NAME
--------------------------------------------------
alice

SQL> select s.student_name from student s where s.teacher_id in (select t.teacher_id from teacher t where t.teacher_name = 'mr. smith');

STUDENT_NAME
--------------------------------------------------
alice

SQL> select s.student_name, t.teacher_name from student s inner join teacher t on s.teacher_id = t.teacher_id;

STUDENT_NAME
--------------------------------------------------
TEACHER_NAME
--------------------------------------------------
alice
mr. smith

bob
ms. johnson


SQL> select student_name, teacher_name from student natural join teacher;

STUDENT_NAME
--------------------------------------------------
TEACHER_NAME
--------------------------------------------------
alice
mr. smith

bob
ms. johnson
```

```
SQL> select s.student_name, t.teacher_name from student s left outer join teacher t on s.teacher_id = t.teacher_id;

STUDENT_NAME
--------------------------------------------------
TEACHER_NAME
--------------------------------------------------
alice
mr. smith

bob
ms. johnson


SQL> select s.student_name, t.teacher_name from student s right outer join teacher t on s.teacher_id = t.teacher_id;

STUDENT_NAME
--------------------------------------------------
TEACHER_NAME
--------------------------------------------------
alice
mr. smith

bob
ms. johnson


SQL> select s.student_name, t.teacher_name from student s full outer join teacher t on s.teacher_id = t.teacher_id;

STUDENT_NAME
--------------------------------------------------
TEACHER_NAME
--------------------------------------------------
alice
mr. smith

bob
ms. johnson


SQL> commit;

Commit complete.

SQL>
```