SOME SQL QUERRIES AND THEIR RESULTS (SCREENSHOTS)

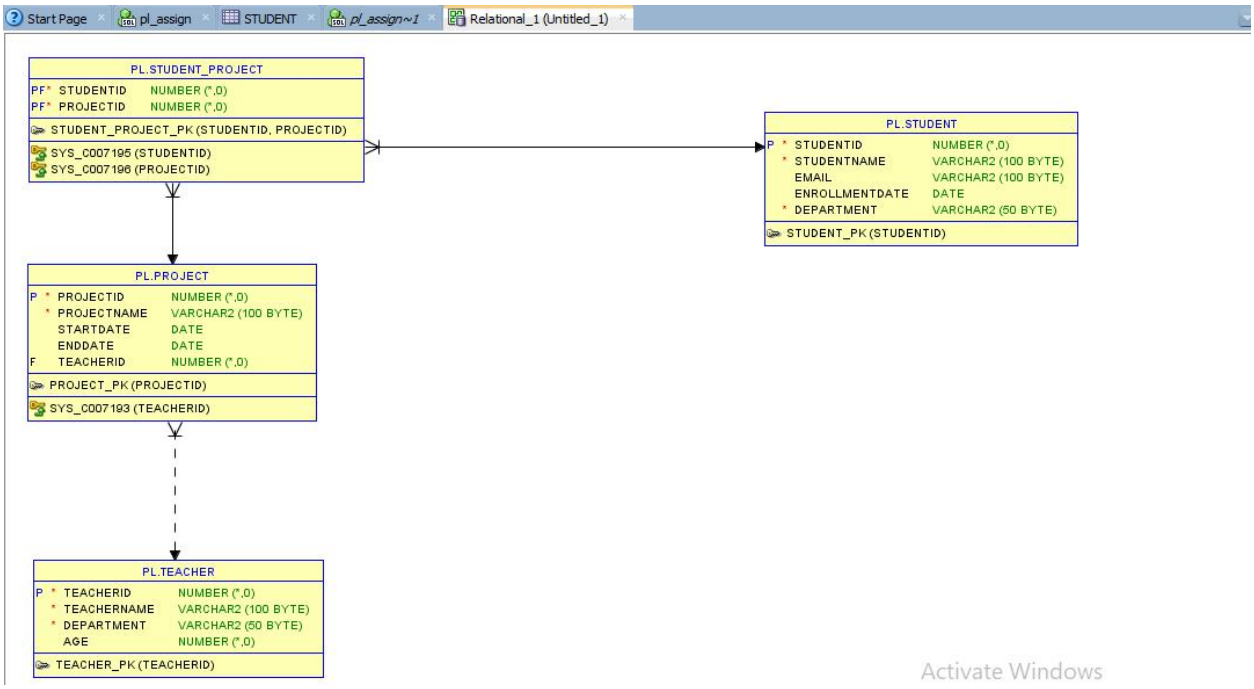
1. Conceptual Diagram:

The following relationships exist between the entities (tables):

- **Teacher**: A teacher can manage multiple projects. (One-to-Many)
- **Project**: A project is managed by one teacher, but many students can work on one project. (Many-to-One for Teacher, Many-to-Many for Students)
- **Student**: A student can work on multiple projects. (Many-to-Many)

Diagram Summary:

1. **Teacher** (One-to-Many) → **Project** (One-to-One)
2. **Student** (Many-to-Many) ↔ **Project**



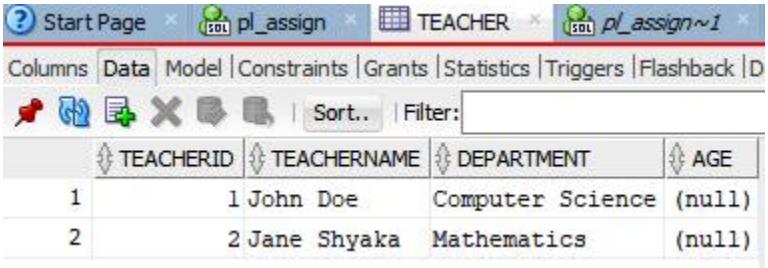
INSERT INTO TEACHER TABLE

```
QL> INSERT INTO TEACHER (TeacherID, TeacherName, Department)VALUES (1, 'John Doe', 'Computer Science');

 row created.

QL> INSERT INTO TEACHER (TeacherID, TeacherName, Department)VALUES (2, 'Jane Shyaka', 'Mathematics');

 row created.
```

```
SQL> INSERT INTO STUDENT (StudentID, StudentName, Email, EnrollmentDate, Department)VALUES (103, 'Charlie Green', 'charlie@example.com', TO_DATE('2023-04-20','YYYY-MM-D
D'),'PHYSICS');

1 row created.
```

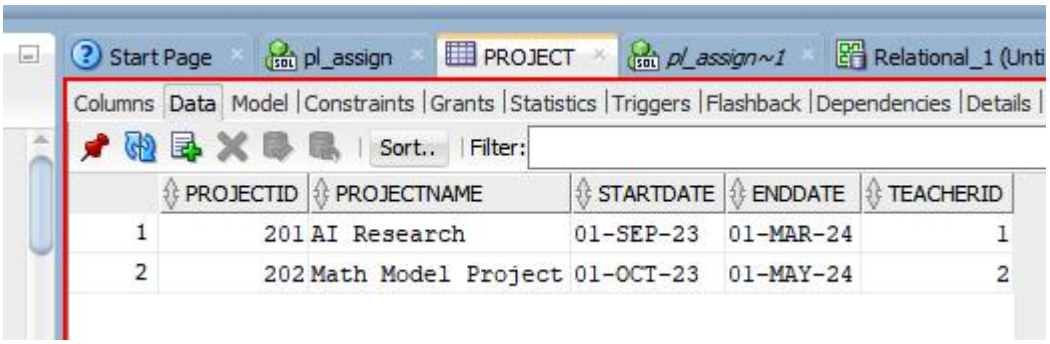
```
SQL> INSERT INTO STUDENT (StudentID, StudentName, Email, EnrollmentDate, Department)VALUES (101, 'Alice Johnson', 'alice@example.com', TO_DATE('2023-04-20','YYYY-MM-DD'
),'Computer Science');

1 row created.

SQL> INSERT INTO STUDENT (StudentID, StudentName, Email, EnrollmentDate, Department)VALUES (102, 'Bob Brown', 'bob@example.com',TO_DATE('2023-01-15','YYYY-MM-DD'),'Math
ematics');

1 row created.

SQL> INSERT INTO PROJECT (ProjectID, ProjectName, StartDate, EndDate, TeacherID)VALUES (201, 'AI Research',TO_DATE('2023-09-01','YYYY-MM-DD'),TO_DATE('2024-03-01','YYYY
-MM-DD'),1);

1 row created.

SQL> INSERT INTO PROJECT (ProjectID, ProjectName, StartDate, EndDate, TeacherID)VALUES (202,'Math Model Project',TO_DATE('2023-10-01','YYYY-MM-DD'),TO_DATE('2024-05-01'
,'YYYY-MM-DD'),2);

1 row created.

SQL> INSERT INTO STUDENT_PROJECT (StudentID, ProjectID)VALUES (101, 201);

1 row created.

SQL> INSERT INTO STUDENT_PROJECT (StudentID, ProjectID)VALUES (102, 202);

1 row created.
```


TEACHER TABLE

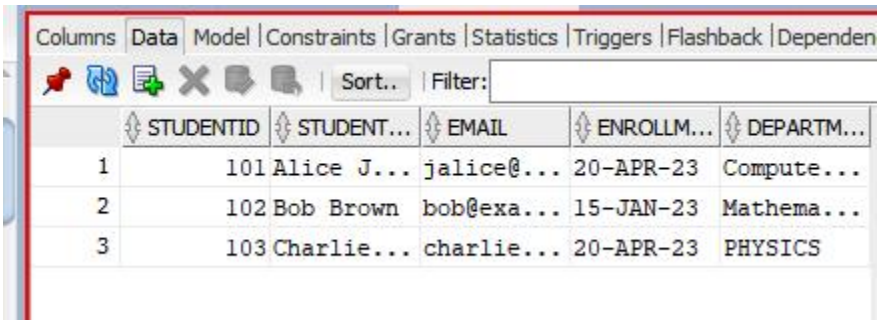


	TEACHERID	TEACHERNAME	DEPARTMENT	AGE
1	1	John Doe	Computer Science	(null)
2	2	Jane Shyaka	Mathematics	(null)

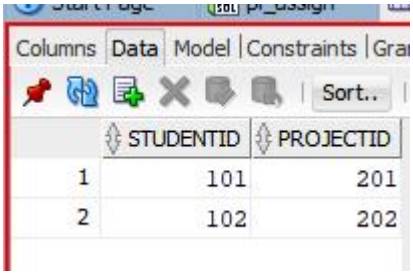
PROJECT TABLE



STUDENT TABLE



STUDENT_PROJECT TABLE



JOINS

```
QL> SELECT P.ProjectName, T.TeacherName
  2  FROM PROJECT P
  3  JOIN TEACHER T ON P.TeacherID = T.TeacherID;

ROJECTNAME
--------------------------------------------------------------------------------
EACHERNAME
--------------------------------------------------------------------------------
I Research
ohn Doe

ath Model Project
ane Shyaka
```

GRANT AND REVOKE

```
SQL> GRANT SELECT ON STUDENT TO SYS;

Grant succeeded.
```

```
SQL> REVOKE SELECT ON STUDENT FROM SYS;

Revoke succeeded.
```

UPDATE

```
SQL> UPDATE STUDENT SET Email = 'jalice@yahoo.com' WHERE StudentID = 101;

1 row updated.
```

DELETE

```
QL> CREATE TABLE Employees (EmployeeID INT primary key,EMPAGE INT);

able created.

QL> delete from Employees;

 rows deleted.
```

ALTER

```
SQL> ALTER TABLE TEACHER ADD AGE INT NULL;

Table altered.
```

DROP

```
SQL> CREATE TABLE Employees (
  2  EmployeeID INT PRIMARY KEY);

Table created.

SQL> DROP TABLE Employees;

Table dropped.
```