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Experiment 5
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CREATING VIEWS

Find the Solution for the following:

1. Create a view called EMPLOYEE_VU based on the employee numbers, employee names and department numbers from the EMPLOYEES table. Change the heading for the employee name to EMPLOYEE.

```
CREATE VIEW EMPLOYEE_VU AS  
SELECT employee_id AS EMPNO, first_name || ' ' || last_name AS EMPLOYEE, department_id AS  
DEPTNO  
FROM EMPLOYEES;
```

2. Display the contents of the EMPLOYEES_VU view.

```
SELECT * FROM EMPLOYEE_VU;
```

Results Explain Describe Saved SQL History		
EMPNO	EMPLOYEE	DEPTNO
1	John Doe	30
2	Jane Smith	20
3	Matos Brown	50
4	Emily Davis	40
5	Michael Wilson	10

5 rows returned in 0.01 seconds [Download](#)

3. Select the view name and text from the USER_VIEWS data dictionary views.

```
SELECT view_name, text FROM  
USER_VIEWS  
WHERE view_name = 'EMPLOYEE_VU';
```

VIEW_NAME	TEXT
EMPLOYEE_VU	SELECT employee_id AS EMPNO, first_name ' ' last_name AS EMPLOYEE, department_id AS DEPTNO FROM EMPLOYEES

1 rows returned in 0.03 seconds [Download](#)

4. Using your EMPLOYEES_VU view, enter a query to display all employees names and department.

```
SELECT EMPLOYEE, DEPTNO  
FROM EMPLOYEE_VU;
```

EMPLOYEE	DEPTNO
John Doe	30
Jane Smith	20
Matos Brown	50
Emily Davis	40
Michael Wilson	10

5 rows returned in 0.00 seconds

5. Create a view named DEPT50 that contains the employee number, employee last names and department numbers for all employees in department 50. Label the view columns EMPNO, EMPLOYEE and DEPTNO. Do not allow an employee to be reassigned to another department through the view.

```
CREATE VIEW DEPT50 AS  
SELECT employee_id AS EMPNO, last_name AS EMPLOYEE, department_id AS DEPTNO  
FROM EMPLOYEES  
WHERE department_id = 50  
WITH CHECK OPTION;
```

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
<u>DEPT50</u>	<u>EMPNO</u>	NUMBER	22	-	-	-	-	-	-
	<u>EMPLOYEE</u>	VARCHAR2	50	-	-	-	✓	-	-
	<u>DEPTNO</u>	NUMBER	22	-	-	-	✓	-	-
1 - 3									

6. Display the structure and contents of the DEPT50 view.
DESC DEP

7. Attempt to reassign Matos to department 80.

```
UPDATE DEPT50  
SET DEPTNO = 80  
WHERE EMPLOYEE = 'Brown';
```

ORA-02291: integrity constraint (KAVIYA.V.SYS_C007586) violated - parent key not found

8. Create a view called SALARY_VU based on the employee last names, department names, salaries, and salary grades for all employees. Use the Employees, DEPARTMENTS and JOB_GRADE tables. Label the column Employee, Department, salary, and Grade respectively.

```
CREATE VIEW SALARY_VU AS  
SELECT e.last_name AS Employee, d.department_name AS Department, e.salary AS Salary,  
       (SELECT grade FROM JOB_GRADES WHERE e.salary BETWEEN low_salary AND  
        high_salary) AS Grade  
FROM EMPLOYEES e  
JOIN DEPARTMENTS d ON e.department_id = d.department_id;
```