Ex.No.: 5		CREATING VIEWS
Date:	14/8/24	

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, last_name AS EMPLOYEE, department_id FROM EMPLOYEES;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE_VU	EMPLOYEE_ID	NUMBER	-	6	0	-	-	-	-
	EMPLOYEE	VARCHAR2	25	-	-	-	-	-	-
	DEPARTMENT_ID	NUMBER	-	4	0	-	✓	-	-

2. Display the contents of the EMPLOYEES_VU view.

SELECT * FROM EMPLOYEE_VU;

EMPLOYEE_ID	EMPLOYEE	DEPARTMENT_I
101	Doe	60
102	Smith	70
103	Johnson	80
104	Davis	60
105	Miller	70
106	Wilson	80
107	Brown	60
108	Taylor	70
109	AUSTIN	80
110	Thomas	60

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, last_name AS EMPLOYEE, department_id FROM EMPLOYEES

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

SELECT EMPLOYEE, department_id FROM EMPLOYEE_VU;

EMPLOYEE	DEPARTMENT_
Doe	60
Smith	70
Johnson	80
Davis	60
Miller	70
Wilson	80
Brown	60
Taylor	70
AUSTIN	80
Thomas	60

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

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT50	EMPNO	NUMBER	-	6	0	-	-	-	-
	EMPLOYEE	VARCHAR2	25	-	-	-	-	-	-
	DEPTNO	NUMBER	-	4	0	-	✓	-	-

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

SELECT * FROM DEPT50;

EMPNO	EMPLOYEE	DEPTN
101	Doe	50
103	Johnson	50
107	Brown	50
109	AUSTIN	50

7. Attempt to reassign Matos to department 80.

UPDATE DEPT50 SET DEPTNO = 80 WHERE EMPLOYEE = 'Matos';

```
ORA-01402: view WITH CHECK OPTION where-clause violation
```

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,
      j.grade_level AS Grade
FROM EMPLOYEES e
```

JOIN DEPARTMENTS d ON e.department_id = d.department_id
JOIN JOB_GRADE j ON e.salary BETWEEN j.lowest_sal AND j.highest_sal;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SALARY_VU	EMPLOYEE	VARCHAR2	25	-	-	-	-	-	-
	DEPARTMENT	VARCHAR2	20	-	-	-	-	-	-
	SALARY	NUMBER	-	8	2	-	✓	-	-
	GRADE	VARCHAR2	2	-	-	-	✓	-	-