

Ex.No.: 5	CREATING VIEWS
Date: 13/08/2021	

After the completion of this exercise, students will be able to do the following:

- Describe a view
- Create, alter the definition of, and drop a view
- Retrieve data through a view
- Insert, update, and delete data through a view
- Create and use an inline view

View

A view is a logical table based on a table or another view. A view contains no data but is like a window through which data from tables can be viewed or changed. The tables on which a view is based are called base tables.

Advantages of Views

- To restrict data access
- To make complex queries easy
- To provide data independence
- To present different views of the same data

Classification of views

1. Simple view
2. Complex view

Feature	Simple	Complex
No. of tables	One	One or more
Contains functions	No	Yes
Contains groups of data	No	Yes
DML operations thr' view	Yes	Not always

Creating a view

Syntax

Use of WITH READ ONLY option.
Any attempt to perform a DML on any row in the view results in an oracle server error.

Try this code:

```
CREATE OR REPLACE VIEW empvu10(employee_number, employee_name, job_title)
AS SELECT employee_id, last_name, job_id
FROM employees
WHERE department_id=10
WITH READ ONLY;
```

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, last_name AS EMPLOYEE,
department_id FROM employees;
```

2. Display the contents of the EMPLOYEES_VU view.

```
SELECT * FROM employee_vu;
```

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';
```

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

```
SELECT EMPLOYEE, department_id
FROM employee_vu;
```

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;
```

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

```
DESC dept50;
SELECT * FROM dept50;
```


7. Attempt to reassign Matos to department 80.

```
UPDATE dept50 SET deptno = 80 WHERE employee =
'Matos';
```

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.

```
UPDATE dept50 SET deptno = 80 WHERE employee
= 'Matos';
```

```
CREATE VIEW Salary_VU AS
SELECT e.last_name AS Employee, d.department_name
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	4
Total (15)	14
Faculty Signature	

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_grades j ON e.salary BETWEEN
j.lowest_sal AND j.highest_sal;
```