

### Introduction To Join View ==>  
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\* Instead of giving this join query again and again, we can create a view on these tables and this view is called a JOIN VIEW.

\* Syntax Of Join View :-

- CREATE VIEW view\_name As ( <join query> );

\* Example:

```
- create view emp_dpt
  2 as (select ename, empno, sal, emp.deptno, dname, loc
  3 from emp, dept
  4 where emp.deptno = dept.deptno);

- select * from emp_dpt;
```

ENAME	EMPNO	SAL	DEPTNO	DNAME	LOC
SMITH	7369	800	20	RESEARCH	DALLAS
ALLEN	7499	1600	30	SALES	CHICAGO
WARD	7521	1250	30	SALES	CHICAGO
JONES	7566	2975	20	RESEARCH	DALLAS
MARTIN	7654	1250	30	SALES	CHICAGO
BLACK	7698	2850	30	SALES	CHICAGO
CLARK	7782	2450	10	ACCOUNTING	NEW YORK
SCOTT	7788	3000	20	RESEARCH	DALLAS
KING	7839	5000	10	ACCOUNTING	NEW YORK
TURNER	7844	1500	30	SALES	CHICAGO
ADAMS	7876	1100	20	RESEARCH	DALLAS

ENAME	EMPNO	SAL	DEPTNO	DNAME	LOC
JAMES	7900	950	30	SALES	CHICAGO
FORD	7902	3000	20	RESEARCH	DALLAS
MILLER	7934	1300	10	ACCOUNTING	NEW YORK

## Modifications On A Join View ==>  
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\* Before we can understand what modifications are allowed on a JOIN VIEW , we first have to understand the concept of KEY PRESERVED TABLE.

\* A table is considered KEY PRESERVED if PRIMARY KEY of the table can also be a PRIMARY KEY of the VIEW.

\* In other words if in the output shown by the view the uniqueness of the PRIMARY KEY is still maintained , then the table to which this key belongs is said to be a KEY PRESERVED table.

\* In our example, the primary key EMPNO of the EMP table is still unique in the output of the view so EMP is a key preserved table.

\* While the table DEPT is non key preserved because it's PRIMARY KEY DEPTNO is not unique in the output of the view.

# UPDATION RULE: ==>  
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\* All the columns which can be updated through a JOIN VIEW must belong to the key preserved table.

\* Moreover if WITH CHECK OPTION is enabled , then column used for join cannot be updated.

\* Example :-

```
- update emp_dpt
  2 set sal = sal + 1000
  3 where empno = 7900;
```

# DELETION RULE: ==>  
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\* We can delete from a JOIN VIEW provided there is only one key preserved table and the data will also be lost from the key preserved table.

\* In the view emp\_det we can execute the delete command since there is only one key preserved table and the data lost will be from the EMP table.

# INSERTION RULE: ==>  
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\* For insert to work on a JOIN VIEW it should not have the WITH CHECK OPTION enabled and also we can just insert the data in the key preserved table.

\* Example :-

```
- INSERT emp_det (empno,ename,sal)
  VALUES ( 105,'Deepesh',50000);
```

## Obtaining Details About Views ==>  
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\* Whenever we create a view on a table , then Oracle internally maintains it's details in it's DATA DICTIONARIES.

\* For views , Oracle has 2 DATA DICTIONARIES:

```
- USER_VIEWS
- USER_UPDATABLE_COLUMNS
```

\* The first dictionary contain details of all the views of the current user while second dictionary contains information about the columns of the view which can be modified.

# USER\_VIEWS: ==>  
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\* It contains the following useful columns:

```
- VIEW_NAME: Stores the name of the view
- TEXT: Stores the select query used to create the view
- READ_ONLY: Contains a single character to denote whether the view is read only or not.
```

\* Example :-

```
# WAQ to display text of the view STAFF.
- select text from user_views where view_name = 'MYSTAFF';
```

TEXT

-----  
(select empno, ename from emp)

# USER\_UPDATABLE\_COLUMNS: ==>  
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\* It contains the following useful columns:  
- TABLE\_NAME: Stores the name of the view  
- COLUMN\_NAME: Stores a name of column contained in the view  
- INSERTABLE: Contains YES or No to indicated whether the column is insertable or not  
- UPDATABLE: Contains YES or No to indicated whether the column is updatable or not  
- DELETABLE: Contains YES or No to indicated whether the column is deletabe or not

\* Example :-

# WAQ to display column name and whether they can be inserted ,updated or deleted for the view STAFF.

- select table\_name, column\_name, insertable, deletable, updatable  
2 from user\_updatable\_columns  
3 where table\_name = 'MYSTAFF';

TABLE_NAME	COLUMN_NAME	INS	DEL	UPD
MYSTAFF	EMPNO	YES	YES	YES
MYSTAFF	ENAME	YES	YES	YES

## Removing Views ==>  
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\* When a view is no longer needed, we can drop it with the DROP VIEW command.

\* Syntax: DROP VIEW <view\_name>;

\* Example: drop view mystaff;

## General Restrictions On View ==>  
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\* Prior to Oracle 11g ,the SELECT query used to define a view cannot contain ORDER BY clause.

\* So the following is wrong

- CREATE VIEW Staff As (Select ename,sal from emp order by sal);

\* As an alternate to this , when we access the view , we can use ORDER BY clause

\* So the following is correct :-

- CREATE VIEW mystaff As (Select ename,sal from emp);  
- SELECT \* from mystaff Order by sal;

\* If a view contains a GROUP BY clause , then it cannot be updated.

\* So the following view cannot be updated.

- CREATE VIEW Dept\_details As (Select deptno,max(sal) sal from emp group by deptno);

\* If a view contains any GROUP FUNCTION or DERIVED COLUMN or any SCALAR FUNCTION , then that column needs to be aliased.

\* So the following view cannot be updated.

- CREATE VIEW Income\_details as (Select empno, sal+nvl(comm,0) as Income from emp);