### **Materialized View & Views**

**View:**

* **Views** are the virtual tables. Views do not get stored in physical memory instead it returns original and updated data from the table every time it is accessed. The important thing to know about views is that if we make any changes in the original table, it will also get reflected in the views table.
* To create view user should have (**create view**) privilege.
* Create view v1 as select \* from t1;
* If source table is deleted or column modified view cannot show the table data or modified column. Again we should create view.
* Create or replace view view\_t1 as select \* from t1;

**To create view with multiple tables:**

* To create view with multiple tables all the expression must have same datatype as corresponding expression.
* create or replace view view\_t1 as

select SNO,ENAME,SAL from t1

union all

select SNO,GMAIL,MOBILE from t2;

**To drop view:**

* drop view view\_t1;

### **Materialized View:**

* **Materialized views** is a table. It contain data.
* **This is a table refresh between two databases.**
* the result of the query is stored in physical memory and the stored result of the query reduces the need for repeated computations and helps to enhance the query performance.
* It is created between 2 servers.
* Even the source table is deleted we can see data in it.
* To create MVIEWS Job queue process should set on both source & target.
* To create MVIEWS require’s.

Source database server time and target server time should match.

Listener – source

TNS – target

Db Link – target

Mv – target

* User must have **Create materialized view privilege** , **Create db link privilege** , **Create table privilege**.

**Job queue process: do in source / target sides**

* This process helps to run the scheduled jobs.
* By default from 11g its value is 1000.
* We can disable this by setting value to 0 and no job’s will work .
* This parameter helps to auto refresh the materialized view.
* Show parameter job;
* Set job\_queue\_processes to some value.
* alter system set job\_queue\_processes= 100 scope=both;

**Materialized view is of 2 types:**

1. **complete refresh**
2. **Fast refresh**

**Complete refresh:**

* complete refresh willtruncate the existing MV and refresh the data based on time interval.
* Create materialized view mv\_mouli refresh complete with rowid Start with sysdate next sysdate +2/1440 as select \* from t1@ LINK\_MV;
* **+2/1400** in a day 1440 minutes. For every 2 minutes this will refresh the data.

**To change refresh time interval:**

* alter materialized view mv\_mouli refresh complete start with sysdate next sysdate +1/1440;

**To immediate refresh of mv:**

* exec dbms\_snapshot.refresh (‘MV\_MOULI’);
* select \* from MV1;

**Fast refresh:**

* Source table must have primary key column.
* Source table must have materialized view logs.

**Materialized view log**:

* When any changes occur in source table that information is logged in materialized view logs.
* create materialized view log on t1;
* This will create 2 tables like MLOG$\_T1 , RUPD$\_T1.
* When the fast MVIEW created. During the refresh interval that MVIEW check these two tables and if any changes then it will refresh only that changes.

**Create fast materialized view:**

* create materialized view mv1 refresh fast with primary key start with sysdate next sysdate +10/1440 as select \* from t1@LINK\_1;
* select \* from MV1;

**To immediate refresh of mv:**

* exec dbms\_snapshot.refresh(‘MV1’);

**To change refresh time interval:**

* alter materialized view MV1 refresh complete start with sysdate next sysdate +5/1440;