Ch-4

OTHER ORACLE DATABASE OBJECTS

VIEW

- A view is a logical representation of a division(subset) of data from one or more table

- A view is a virtual table.

- So ,creating views does not take any storage space .other than the space in the data dictionary.

- In SQL, a view is a virtual table based on the result-set of an SQL statement.

✖ A view contains rows and columns, just like a real table. The fields in a view are fields from one or more real tables in the database.

✖ You can add SQL functions, WHERE, and JOIN statements to a view and present the data as if the data were coming from one single table.

✖ Two types of view

✖ 1)simple view   2)Complex view

Features	Simple views	Complex view
Number of tables	One	One or more
Contain function	No	Yes
Contain group of data	No	Yes
DML operation(select, insert, delete, update)	Yes	Not always

✖ **Simple view:**

✖ **syntax:**
  + **Create VIEW view name AS subquery**
  + **[with check option[constraint]**
  + **[with read only[constraint]**

✖ CREATE VIEW Syntax

✖ CREATE VIEW view_name AS
  SELECT column1, column2, ...
  FROM table_name
  WHERE condition;

EX.

STEP(1)

- create view emp14 as select ename,job,sal from emp with **check option**
- create view emp14 as select * from emp with **read only**

STEP(2)

- select *from emp14   (Display view table)

STEP(3)

- select *from emp   (Display table)

- **Drop view**
- Drop view <view_name>

SEQUENCE

* An oracle sequence is a named *sequential number generator numeric values*.

* It is independent object and can be used with *any table that requires its output.*

* *Primary key* column to maintain *unique values*

* In *multi user environment*.

* Sequence exist only the data dictionary.

✖ <u>Syntax:</u>

✚ Cretae SEQUENCE <name>

   ✖ [Increment by<no.>]   →increase/decrease.

   ✖ [Start with <no.>]   →first number sequence.

   ✖ [Maxvalue <no>/nomaxvalues]   →largest value seq.

   ✖ [Minvalue<no.>/nominvalue]   →lower value.

   ✖ [Cycle /nocycle]   →repeat number.

   ✖ [cache / nocache]   →size of the block of seq.

Ex. STEP(1)

- create table student(id number(5),name varchar2(10),city varchar2(10))

STEP(2)

- create sequence seq01
  increment by 20
  start with 10
  maxvalue 100

STEP(3)

- insert into student values(seq01.nextval,'ccc','jnd')

STEP(4)

- select *from student

- Drop sequence
- Drop sequence < sequence _name>

INDEX

- Index is a typically a listing of keyword.

- We can create indexes explicitly to a speed up SQL statement execution on a table.

- The index points directly to <u>the rows containing the values. (ex.rowid)</u>

- **Types of index:**
  - B*tree index   →(Default types)
  - Bitmap index   →(Compared to the number of row)
  - Function index →(result of the function key–column)
  - Domain index   → (user vise)

- Syntax. :

- create index <index_name>ON table_nm <colm1,colm2>

- Ex. Create index inx1 ON emp(empno,ename)

- select rowid,name,city,salary from STUDENT
  + **Drop index**
  + Drop index < index _name>

SYNONYM

- A synonym is an alternative name for object.

- such as table, view, sequences ,stored procedures and other database objects.

- A synonym can point to a table, view, sequence, in the local database or via a database link. To an object in another database.

Ex.
- Step-1
- create synonym syn_123 for emp

- Step-2
- select *from syn_123

- Step-3
- **Drop synonym**
- Drop **synonym** < **synonym** _name>
- drop synonym syn_123

- Step-4
- select *from emp

DATABASE LINK

- Database link allows you to connect from one database to another.

- You can establish the direct connection from local database to remote database.

- A database link can be <u>private –owned by a single user</u>, or <u>public in which all the user</u> in the local database can use the link.

- Ex.

- create database link myremotedb using 'system'

- select sysdate from dual myremotedb

CLUSTER

CLUSTER

* A cluster is a schema object that contains data from <u>one or more tables</u>. All of which have one or more column is common.

* Oracle DB store together all the rows from all the tables that share the same cluster key. use the CREATE CLUSTER statement to create a cluster.

* Table clustering is very seldom used by oracle DBA's and developers.

* Two or more computer that *share resources* and work together to form a *larger logical computing unit*.

✖ Syntax :

create cluster <cluster_name>(column dayatype(size),

column datatypes(size),...)

Ex. create table worker

(

name varchar2(10),

age number(3),

city varchar2(10)

) cluster workerskill(name)

SNAPSHOT

SNAPSHOT

* It is a read only copy of a table or a subset of a table. A snapshot is more useful in distributed computing environment .that time using command create snapshot.

* a snapshot is a table that contains the results of a query of more tables of view, often on a remote database.

- Syntax : create snapshot [schema.]snapshot as query.

- Ex. create snapshot snap_emp1 as select *from emp