INDEXES :

-> Indexes are used to improves the performance while retrieving or manipulating data

-> by default ORACLE db follows TABLE SCAN method

-> Indexes are activated whenver Indexed Column is placed on WHERE clause of SELECT statement

-> Indexes are also activated whenthe tables are manipulated by other users

-> All created indexes are stored USER_INDEXES(system table)

-> Basically Indexes are two types

I. Implicit Index

-> These indexes are created by oracle automatically

ex: PRIMARY KEY, UNIQUE Constraint

II. Explicit Index

-> These are created user Explicitely

-> There are different types of Explicit Indexes

a. Normal Indexes :

-> these indexes are created by any db column

Syn:-

Create Index <Index_name> ON <table_name>(col1, col2,....);

ex:-

SQL> Create index empno_ind on Emp(Empno);

Index created.

SQL> select * from emp where empno=7934;

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO
------ --------- --------- ------ --------- ------ ------ ------
7934 MILLER CLERK 7782 23-JAN-82 1400 10

ii. Composite Indexes :

-> To create index on morethan one column is called as composite indexes

-> In Composite Indexes Maximum 32 columns are supported

ex:-

Create Index comp_ind on Emp(Deptno, Job);

select * from emp where deptno=10 and job='clerk';

iii. Functional Based Indexes :

-> these indexes are created by using BUILT-IN FUNCTIONS

ex:- create index fun_ind on emp(lower(job));

select * from emp where job='clerk';

job(index)

----

clerk
manager
CLERK
ANALYST
MANAGER
president
.

.

1000

400 -> small case letters

600 -> upper case letters

select * from emp where job='clerk';

UNIQUE INDEXES :

-> these indexes are created on UNIQUE Data columns

ex:-

Create unique index uni_job_ind on Emp(job); => Error

Create unique index uni_empno_ind on Emp(empno);

note: Indexes are not created on if any column datatype contains LOB, BLOB, CLOB, RAW, LONG RAW, etc., datatypes

** to see the created indexes names

select * from user_indexes;

** Dropping Indexes :

Drop Index my_ind;

SEQUENCES :

-> Sequences are used to generate sequence of numbers automatically

-> Sequences are supports only Numarics

-> Sequences are supports two pseudo columns

i. currval ii. nextval