

Ex.No.: 15

## OTHER DATABASE OBJECTS

Date:

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#### Objectives

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

- Create, maintain, and use sequences
- Create and maintain indexes

#### Database Objects

Many applications require the use of unique numbers as primary key values. You can either build code into the application to handle this requirement or use a sequence to generate unique numbers.

If you want to improve the performance of some queries, you should consider creating an index.

You

can also use indexes to enforce uniqueness on a column or a collection of columns.

You can provide alternative names for objects by using synonyms.

#### **What Is a Sequence?**

A sequence:

- Automatically generates unique numbers
- Is a sharable object
- Is typically used to create a primary key value
- Replaces application code
- Speeds up the efficiency of accessing sequence values when cached in memory

#### **The CREATE SEQUENCE Statement Syntax**

Define a sequence to generate sequential numbers automatically:

```
CREATE SEQUENCE sequence
[INCREMENT BY n]
[START WITH n]
[{MAXVALUE n | NOMAXVALUE}]
[{MINVALUE n | NOMINVALUE}]
[{CYCLE | NOCYCLE}]
[{CACHE n | NOCACHE}];
```

**In the syntax:**

*sequence* is the name of the sequence generator

1. create sequence Dep ID SEQ

start with 200

Increment by 10

maxvalue 1000

No cycle;

2. select  
seq\_name, max\_val, increment\_by, last\_num

from user\_sequences.

where seq\_name = 'DEPT\_ID\_SEQ';

3. Insert into dept (Dept-ID, Dept name) Values (Dept-ID-SEQ,  
next\_val, 'Education');

insert into dept (Dept-ID, Deptname) Values (Dept-ID-SEQ next\_val,  
Admin);

select \* from dept

4. create tran Index-id on emp (Dept-ID);

5. select  
index name

Uniqueness

from  
user\_indexes

where  
table\_name = 'EMP';