CHANDIGARH UNIVERSITY

Discover. Learn. Empower.

INSTITUTE : UIE
DEPARTMENT : APEX INSTITUTE OF TECHNOLOGY(CSE) -AIML

Bachelor of Engineering (Computer Science & Engineering)

Advanced Database Management System

Er. Vishwa Deepak (E12867)

DISCOVER . LEARN . EMPOWER

Synonym and Views

Course Objectives

CO Number	Course Objective	Level
CO1	Develop understanding the advancement in SQL	Apply

Course Outcome

CO Number	Course Outcome	Level
CO2	Create views of data and Implement transaction control using locks.	Apply

LECTURE OUTCOMES

- Student will learn about the advances in SQL like Locks.
- Student will learn about Shared and Exclusive locks

Synonyms

- A **SYNONYM** provides another name for database object, referred to as original object, that may exist on a local or another server. A synonym belongs to schema, name of synonym should be unique. A synonym cannot be original object for an additional synonym and synonym cannot refer to user-defined function.
- The query below results in an entry for each synonym in database. This query provides details about synonym metadata such as the name of synonym and name of the base object.

EXAMPLE

```
select *
from sys.synonyms ;
```

Note : *Synonyms are database dependent and cannot be accessed by other databases.*

SYNTAX

CREATE SYNONYM synonym name

FOR servername.databasename.schemaname.objectname;

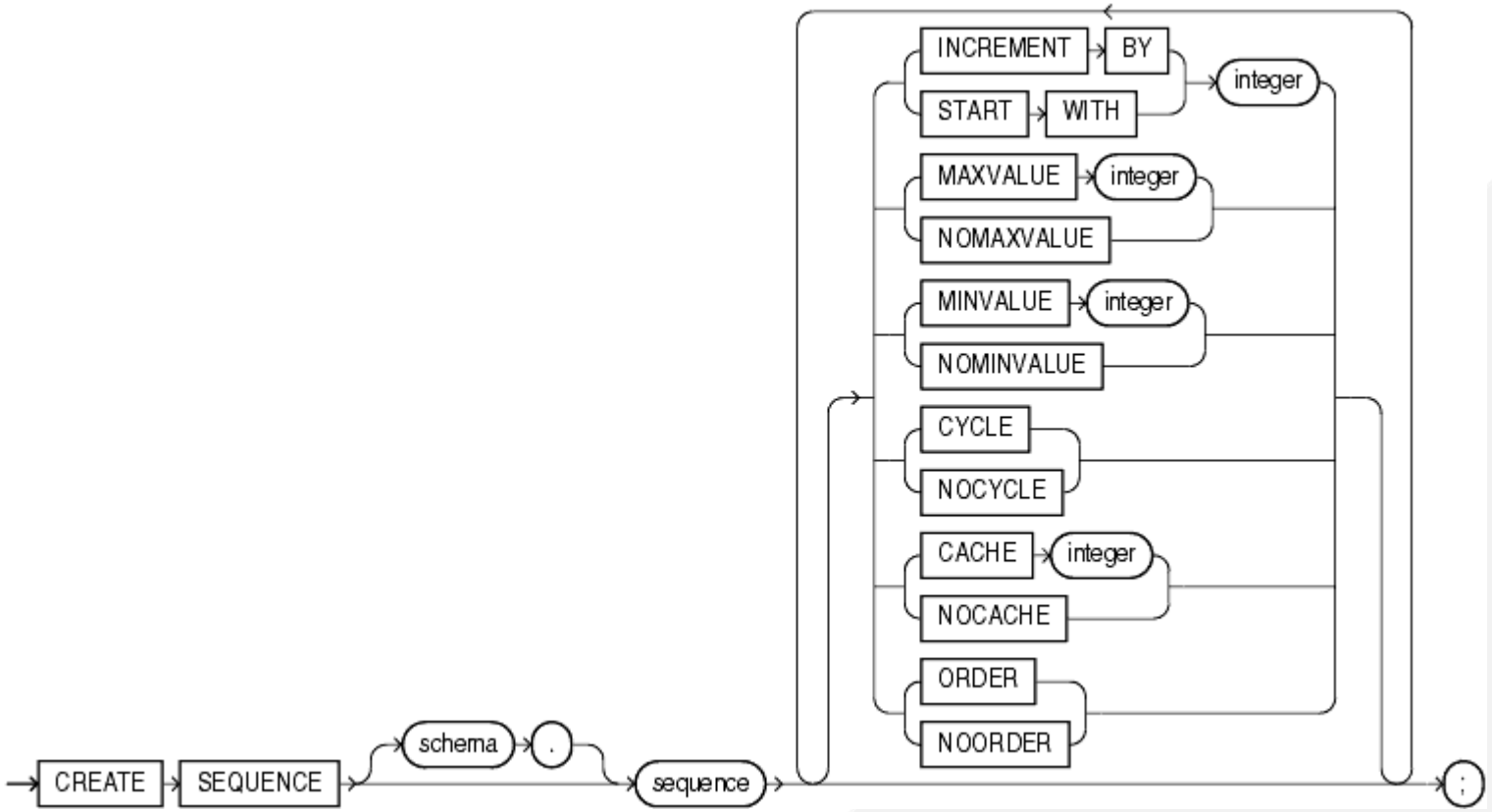
Sequences

- Use the CREATE SEQUENCE statement to create a sequence, which is a database object from which multiple users may generate unique integers. You can use sequences to automatically generate primary key values.
- When a sequence number is generated, the sequence is incremented, independent of the transaction committing or rolling back. If two users concurrently increment the same sequence, then the sequence numbers each user acquires may have gaps, because sequence numbers are being generated by the other user. One user can never acquire the sequence number generated by another user. Once a sequence value is generated by one user, that user can continue to access that value regardless of whether the sequence is incremented by another user.

Sequences

- Sequence numbers are generated independently of tables, so the same sequence can be used for one or for multiple tables. It is possible that individual sequence numbers will appear to be skipped, because they were generated and used in a transaction that ultimately rolled back. Additionally, a single user may not realize that other users are drawing from the same sequence.

SYNTAX:



Source: https://docs.oracle.com

SYNTAX

CREATE SEQUENCE sequence_name

START WITH initial_value

INCREMENT BY increment_value

MINVALUE minimum value

MAXVALUE maximum value

CYCLE|NOCYCLE ;

ALTER SEQUENCES

- Modifies the arguments of an existing sequence object. If the sequence was created with the **CACHE** option, altering the sequence will recreate the cache.
- The data type cannot be changed by using the ALTER SEQUENCE statement. To change the data type, drop and create the sequence object.

ALTER SEQUENCES

ALTER SEQUENCE [schema_name.] sequence_name

[RESTART [WITH <constant>]]

[INCREMENT BY <constant>]

[{ MINVALUE <constant> } | { NO MINVALUE }]

[{ MAXVALUE <constant> } | { NO MAXVALUE }] [CYCLE | { NO CYCLE }]

[{ CACHE [<constant>] } | { NO CACHE }]

[;]

HOME WORK

- What is Sequences?
- How can be alter sequences?.

REFERENCES

Text Book:

1. Sql/ Pl/SQL, Bayross,Ivan

Reference Book:

1. An Introduction to Database Systems, C. J. Date

Web References:

1. https://docs.microsoft.com/en-us/sql/t-sql/statements/alter-sequence-transact-sql?view=sql-server-ver16
2. https://www.geeksforgeeks.org/sql-sequences/

THANK YOU

Mail at: Vishwa.e12867@cumail.in