

SYNONYM: (20-11-2024)

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- it is a database object which is used to create alternate name / shortcut name for a table name.

syntax:

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create synonym <synonym name> for <object name / table name>;

EX:

```
CREATE TABLE COLLEGE_ENROLLMENT_DETAILS(STID INT,SNAME
VARCHAR(10),BRANCH VARCHAR(10));
```

TESTING:

```
INSERT INTO COLLEGE_ENROLLMENT_DETAILS VALUES(1021,'SMITH','EEE');
UPDATE COLLEGE_ENROLLMENT_DETAILS SET BRANCH='CSE' WHERE STID=1021;
DELETE FROM COLLEGE_ENROLLMENT_DETAILS WHERE STID=1021;
SELECT * FROM COLLEGE_ENROLLMENT_DETAILS;
```

Creating a shortcut name for COLLEGE_ENROLLMENT_DETAILS:

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```
CREATE SYNONYM CED FOR COLLEGE_ENROLLMENT_DETAILS;
```

TESTING:

```
INSERT INTO CED VALUES(1021,'SMITH','EEE');
UPDATE CED SET BRANCH='CSE' WHERE STID=1021;
DELETE FROM CED WHERE STID=1021;
SELECT * FROM CED;
```

How to drop a synonym:

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syntax:

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```
DROP SYNONYM <SYNONYM NAME>;
```

EX:

```
DROP SYNONYM CED;
```

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SEQUENCE:

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- it is a db object which is used to generate sequence numbers on a specific column automatically.

- it will provide "auto incremental value" facility on a table.

syntax:

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create sequence <sequence name>

[start with n]

[minvalue n]

[increment by n]

[maxvalue n]

[no cycle / cycle]

[no cache / cache n];

i) start with n:

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- this attribute is used to assign starting value of the sequence.
- here "n" is a number.

ii) minvalue n:

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- to show the minimum value from the set of sequence numbers.
- here "n" is a number.

iii) increment by n:

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- to specify the incremental value in between sequence numbers.
- here "n" is a number.

iv) maxvalue n:

=====

- to show maximum value from the set of sequence numbers.
- here "n" is a number.

v) no cycle:

=====

- it is a default attribute.
- when we created a sequence object with "NO CYCLE" then the set of sequence numbers are not repeat again and again.

vi) cycle:

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- when we created a sequence object with "CYCLE" then the set of sequence numbers are repeating again and again.

vii) no cache:

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- it is a default attribute of sequence.
- when we created a sequence object with "No CACHE" then the set of sequence numbers are saved in database memory directly so that each and every user request will go to database and retrieve the required data from a table so that it leads burden on database and degrade the performance of database.

viii) cache:

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- when we created a sequence object with "CACHE" then the set of sequence numbers are saved in database memory and also the copy of data is stored in cache memory. so that each and every user request will go to cache instead of database and retrieve the required data from a cache memory so that it reduce burden and improve the performance of database.

21-11-2024:

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NOTE:

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- when we want generate sequence numbers on a column we must use the following syntax:

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NEXT VALUE FOR <sequence object name>

EX1:

```
CREATE SEQUENCE SQ1
START WITH 1
MINVALUE 1
INCREMENT BY 1
MAXVALUE 3;
```

TESTING:

```
CREATE TABLE TEST55(SNO INT,NAMES VARCHAR(10));
```

```
INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'A');-----ALLOWED
```

```
INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'B');-----ALLOWED
```

```
INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'C');-----ALLOWED
```

```
INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'D');-----NOT ALLOWED
```

ERROR:

The sequence object 'SQ1' has reached its minimum or maximum value.

ALTERING A SEQUENCE:

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syntax:

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ALTER SEQUENCE <SEQUENCE NAME> <ATTRIBUTE> n;

EX:

ALTER SEQUENCE SQ1 MAXVALUE 5;

TESTING:

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INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'D');----- ALLOWED

INSERT INTO TEST55 VALUES(NEXT VALUE FOR SQ1,'E');----- ALLOWED

SELECT * FROM TEST55;

EX2:

CREATE SEQUENCE SQ2

START WITH 1

MINVALUE 1

INCREMENT BY 1

MAXVALUE 3

CYCLE

CACHE;

TESTING:

CREATE TABLE TEST56(SNO INT,NAMES VARCHAR(10));

INSERT INTO TEST56 VALUES(NEXT VALUE FOR SQ2,'A');

INSERT INTO TEST56 VALUES(NEXT VALUE FOR SQ2,'B');

.....;

.....;

EX3:

CREATE SEQUENCE SQ3

START WITH 3

MINVALUE 1

INCREMENT BY 1

MAXVALUE 5

CYCLE

CACHE;

TESTING:

CREATE TABLE TEST57(SNO INT,NAMES VARCHAR(10));

```
INSERT INTO TEST57  VALUES(NEXT VALUE FOR SQ3,'A');
INSERT INTO TEST57  VALUES(NEXT VALUE FOR SQ3,'B');
.....;
.....;
```

How to drop a sequence object:

=====

syntax:

=====

DROP SEQUENCE <SEQUENCE NAME>;

EX:

DROP SEQUENCE SQ1;