

# **SYNONYMS:**

IT A DB OBJECT TO CREATE PERMANANT ALIAS NAMES FOR DB OBJECTS LIKE TABLE, VIEW, PROCEDURE .....ETC.

SYNONYM IS NOTHING BUT ALTERNATIVE NAME FOR DB OBJECTS LIKE TABLE, VIEW, PROCEDURE....

SYNONYMS ARE CREATED TO REDUCE LENGTHY TABLE NAME.

## **TYPES OF SYNONYMS:**

1. PRIVATE SYNONYM (DEFAULT)

2. PUBLIC SYNONYM

### **1.PRIVATE SYNONYMS:**

> THESE SYNONYMS ARE CREATED BY USERS WHICH HAVE PERMISSION.

SYNTAX:

CREATE SYNONYM <SYNONYM NAME> FOR [USERNAME]. <DB OBJECT NAME>;

EX:

SQL> CONN SCOTT/TIGER;

SQL> CREATE USER U1 IDENTIFIED BY U1;

SQL> GRANT CONNECT, CREATE TABLE, UNLIMITED TABLESPACE TO U1;

SQL> CONN U1/U1;

SQL> CREATE TABLE STUDENTDETAILS (STID INT, SNAME VARCHAR2(10));

SQL> INSERT INTO STUDENTDETAILS VALUES (1021,'SAI');

SQL> INSERT INTO STUDENTDETAILS VALUES (1022,'JONES');

SQL> COMMIT;

SQL> CREATE SYNONYM SYN1 FOR STUDENTDETAILS;

ERROR AT LINE 1:

ORA-01031: INSUFFICIENT PRIVILEGES

```
SQL> CONN SCOTT/TIGER;  
SQL> GRANT CREATE SYNONYM TO U1;  
GRANT SUCCEEDED.
```

```
SQL> CONN U1/U1;  
SQL> CREATE SYNONYM SYN1 FOR STUDENTDETAILS;  
SYNONYM CREATED.
```

**NOTE: ONCE WE CREATED SYNONYM INSTEAD OF USING TABLE NAME WE CAN USE SYNONYM NAME FOR ACCESSING DATA / TO PERFORM DB OPERATIONS ON TABLE.**

**TESTING:**

```
SQL> SELECT * FROM SYN1;  
SQL> INSERT INTO SYN1 VALUES (1023,'MILLER');  
SQL> UPDATE SYN1 SET SNAME='SCOTT' WHERE STID=1022;  
SQL> DELETE FROM SYN1 WHERE STID=1023;
```

## **2. PUBLIC SYNONYMS:**

**THESE SYNONYMS ARE CREATED BY DBA.WE SHOULD HAVE "CREATE PUBLIC SYNONYM " PRIVILEGE.AND IT CAN ACCESSING BY ALL USERS.FOR HIDING THE INFORMATION ABOUT USERNAME, OBJECT NAME(TABLE).**

**SYNTAX:**

```
CREATE PUBLIC SYNONYM <SYNONYM NAME> FOR [USER NAME].  
<DB OBJECT NAME>;
```

**EX:**

```
SQL> CONN SCOTT/TIGER;  
SQL> CREATE PUBLIC SYNONYM PUB_SYN FOR DEPT;
```

**SQL> GRANT ALL ON PUB\_SYN TO U1, U2, U3;**  
**(OR)**

**SQL> GRANT ALL ON PUB\_SYN TO PUBLIC;**

**SQL> CONN U1/U1;**

**SQL> SELECT \* FROM PUB\_SYN;---ALLOWED**

**SQL> CONN U2/U2;**

**SQL> SELECT \* FROM PUB\_SYN;---ALLOWED**

**NOTE: ONCE WE CREATED PUBLIC SYNONYM THEN ANY USER CAN ACCESS THAT PUBLIC SYNONYM WITHOUT "USERNAME".**

**NOTE: TO VIEW ALL SYNONYMS INFORMATION IN ORACLE DB THEN WE USE "USER\_SYNONYMS" DATADICTINARY.**

**EX:**

**SQL> DESC USER\_SYNONYMS;**

**SQL> SELECT SYNONYM\_NAME, TABLE\_NAME FROM  
USER\_SYNONYMS;**

**NOTE: TO VIEW ALL PRIVATE AND PUBLIC SYNONYMS OF A PARTICULAR USER IN ORACLE DATABASE THEN WE "ALL\_SYNONYMS" DATADICTINARY.**

**EX:**

**SQL> DESC ALL\_SYNONYMS;**

**SQL> SELECT SYNONYM\_NAME, TABLE\_NAME FROM  
ALL\_SYNONYMS WHERE TABLE\_NAME='DEPT';**

**SYNTAX TO DROP SYNONYMS:**

**SQL> DROP SYNONYM <SYNONYM NAME>;**

**EX:**

**SQL> DROP SYNONYM SYN\_DEPT;**

**IN THIS CASE WE DROPPING PRIVATE SYNONYMS ONLY  
AND DROPPING BY USER.**

**SQL> DROP PUBLIC SYNONYM <SYNONYM NAME>;**

**EX:**

**SQL> DROP PUBLIC SYNONYM PUB\_SYN;**

**IN THIS CASE WE DROPPING PUBLIC SYNONYMS ONLY AND  
DROPPING BY DBA.**