**DATABASE OBJECTS - OVERVIEW**

DEVELOPER OBJECTS : PARTITIONS, FT INDEXES, XEL...

VIEWS

SCHEMAS

TABLES

PROCEDURES

FUNCTIONS

ADMIN OBJECTS: LOGINS, USERS, KEYS, CERTIFICATES..

KEYS

**SCHEMAS** : DATABASE OBJECTS USED TO GROUP MULTIPLE TABLES, VIEWS, PROCEDURES...

PURPOSE : USED FOR EASY DATA ACCESS AND EASY SECURITY MANAGEMENT

DEFAULT SCHEMA IS "**DBO**". MEANS, DATABASE OWNER.

**-- ITEM #1. HOW TO CREATE SCHEMAS IN A DATABASE ?**

CREATE SCHEMA SCHEMA1

**-- ITEM #2. HOW TO CREATE THE TABLES USING THE SCHEMAS ?**

CREATE TABLE SCHEMA1.TABLE1 (COL1 INT, COL2 INT)

CREATE TABLE SCHEMA1.TABLE2 (COL1 INT, COL2 INT)

**-- ITEM #3: HOW TO STORE DATA INTO THE ABOVE TABLES ?**

INSERT INTO SCHEMA1.TABLE1 VALUES (1,1), (2,2), (3,3)

INSERT INTO SCHEMA1.TABLE2 VALUES (11,11), (22,22), (33,33)

**-- ITEM #4: HOW TO REPORT DATA FROM ABOVE TABLES ?**

SELECT \* FROM SCHEMA1.TABLE1; SELECT \* FROM SCHEMA1.TABLE2

**VIEWS** : OBJECTS USED TO STORE **SELECT** **QUERIES**. ALSO CALLED **VIRTUAL TABLES**.

PURPOSE : FOR REUSABILITY OF CODE AND TO IMPLEMENT ROW LEVEL SECURITY [**RLS**]

SYNTAX : CREATE VIEW <VIEW NAME>

AS

<< SELECT QUERY >>

**-- EXAMPLE 1: USER DEFINED VIEWS**

CREATE VIEW VW\_INDIA\_EMPLOYEES

AS

SELECT \* FROM SCHEMA1.TABLE1 WHERE COL1 > 1

**-- TO ACCESS ABOVE VIEW**

SELECT \* FROM VW\_INDIA\_EMPLOYEES

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**FUNCTIONS**: OBJECTS USED TO STORE **SELECT & DML QUERIES**

PURPOSE : FOR COMPUTATIONS or CALCULATIONS, DATA MODELLING [FORMATTING]

SYNTAX : CREATE FUNCTION <FUNCTION NAME> ( <<PARAMETERS LIST >>) -- Argument

RETURNS <<DATATYPE>>

AS

RETURN << DYNAMIC SELECT QUERY >>

**-- EXAMPLE 2: USER DEFINED FUNCTIONS**

CREATE FUNCTION FN\_REPORT\_EMPLOYEES (@COL1 INT)

RETURNS table

AS

RETURN ( SELECT \* FROM SCHEMA1.TABLE1 WHERE @COL1 > 1 )

**-- TO ACCESS ABOVE FUNCTION**

SELECT \* FROM FN\_REPORT\_EMPLOYEES('INDIA')

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**PROCEDURES**: OBJECTS USED TO STORE **SELECT, DML & DDL QUERIES**

PURPOSE : FOR PROGRAMMING AND QUERY TUNING OPERATIONS

SYNTAX : CREATE PROCEDURE <PROCEDURE NAME> ( <<PARAMETERS LIST >>)

AS

<< DYNAMIC SELECT QUERY >>

**-- EXAMPLE 3: USER DEFINED PROCEDURES (STORED PROCEDURES)**

CREATE PROCEDURE SP\_REPORT\_EMPLOYEES (@Country varchar(30))

AS

SELECT \* FROM SCHEMA1.TABLE1 WHERE EMP\_CNTRY = @Country

**-- TO ACCESS ABOVE STORED PROCEDURE**

EXEC SP\_REPORT\_EMPLOYEES 'INDIA'