

Task7 REPORT

1. CREATE PACKAGES TO LOAD DIMENSIONS FROM SOURCE TO 3NF LAYER

I CREATED ALL REQUIRED OBJECTS ON BL_3NF LAYER ,GRANT ALL REQUIRED PRIVILEGES TO BL_CL, CREATED STRUCTURE OF PACKAGE AND REALIZED SOME OF PROCEDURES:

PRC_LOAD_CE_CHANNEL_CLASSES

CHANNEL_CLASS_ID	CHANNEL_CLASS_SRCID	CHANNEL_CLASS_SOURCE_SYSTEM	CHANNEL_CLASS_SOURCE_ENTITY	CHANNEL_CLASS	TA_UPDATE_DT	TA_INSERT_DT
1	151	personnel_sales	src_channels	Direct	14-MAR-22	14-MAR-22
2	162	personnel_sales	src_channels	Indirect	14-MAR-22	14-MAR-22
3	-1-1	personnel_sales	src_channels	N/A	14-MAR-22	14-MAR-22

PRC_LOAD_CE_PROMOTION_CATEGORIES

PROMOTION_CATEGORY_ID	PROMOTION_CATEGORY_SRCID	PROMOTION_CATEGORY_SOURCE_SYSTEM	PROMOTION_CATEGORY_SOURCE_ENTITY	PROMOTION_CATEGORY	TA_UPDATE_DT	TA_INSERT_DT
1	18	personnel_sales	src_promotions	post	14-MAR-22	14-MAR-22
2	21	personnel_sales	src_promotions	NO PROMOTION	14-MAR-22	14-MAR-22
3	33	personnel_sales	src_promotions	ad news	14-MAR-22	14-MAR-22
4	42	personnel_sales	src_promotions	TV	14-MAR-22	14-MAR-22
5	55	personnel_sales	src_promotions	internet	14-MAR-22	14-MAR-22
6	-1-1	personnel_sales	src_promotions	N/A	14-MAR-22	14-MAR-22

PRC_LOAD_CE_BRANDS

PRODUCT_BRAND_ID	PRODUCT_BRAND_SRCID	PRODUCT_BRAND_SOURCE_SYSTEM	PRODUCT_BRAND_SOURCE_ENTITY	PRODUCT_BRAND	TA_UPDATE_DT	TA_INSERT_DT
1	319319	personnel_sales	src_products	IT Cosmetics	14-MAR-22	14-MAR-22
2	320320	personnel_sales	src_products	KBShimmer	14-MAR-22	14-MAR-22
3	321321	personnel_sales	src_products	Chikuhodo	14-MAR-22	14-MAR-22
4	322322	personnel_sales	src_products	Cult Nails	14-MAR-22	14-MAR-22
5	323323	personnel_sales	src_products	Lily Lolo	14-MAR-22	14-MAR-22
6	324324	personnel_sales	src_products	Cle de Peau	14-MAR-22	14-MAR-22
7	325325	personnel_sales	src_products	Mirabella	14-MAR-22	14-MAR-22
8	326326	personnel_sales	src_products	Batiste	14-MAR-22	14-MAR-22
9	327327	personnel_sales	src_products	Pixie Cosmetics	14-MAR-22	14-MAR-22
10	328328	personnel_sales	src_products	Conair	14-MAR-22	14-MAR-22
11	329329	personnel_sales	src_products	Lipstick Queen	14-MAR-22	14-MAR-22
12	330330	personnel_sales	src_products	Butter London	14-MAR-22	14-MAR-22
13	331331	personnel_sales	src_products	Paulas Choice	14-MAR-22	14-MAR-22
14	332332	personnel_sales	src_products	Seche	14-MAR-22	14-MAR-22
15	333333	personnel_sales	src_products	Klorane	14-MAR-22	14-MAR-22
16	334334	personnel_sales	src_products	Coastal Scents	14-MAR-22	14-MAR-22

PRC_LOAD_CE_PRODUCT_TYPES

PRODUCT_TYPE_ID	PRODUCT_TYPE_SRCID	PRODUCT_TYPE_SOURCE_SYSTEM	PRODUCT_TYPE_SOURCE_ENTITY	PRODUCT_TYPE	TA_UPDATE_DT	TA_INSERT_DT
1	11	personnel_sales	src_products	Felt-Tip	14-MAR-22	14-MAR-22
2	22	personnel_sales	src_products	Exfoliator	14-MAR-22	14-MAR-22
3	33	personnel_sales	src_products	Mirror	14-MAR-22	14-MAR-22
4	44	personnel_sales	src_products	Lip Oil	14-MAR-22	14-MAR-22
5	55	personnel_sales	src_products	Nail File	14-MAR-22	14-MAR-22
6	66	personnel_sales	src_products	Blush	14-MAR-22	14-MAR-22
7	77	personnel_sales	src_products	Dye	14-MAR-22	14-MAR-22
8	88	personnel_sales	src_products	Hair Tools	14-MAR-22	14-MAR-22
9	99	personnel_sales	src_products	False Eyelashes	14-MAR-22	14-MAR-22
10	1010	personnel_sales	src_products	Brush	14-MAR-22	14-MAR-22
11	1111	personnel_sales	src_products	Serum	14-MAR-22	14-MAR-22
12	1212	personnel_sales	src_products	Top Coat	14-MAR-22	14-MAR-22
13	1313	personnel_sales	src_products	Dual-Ended	14-MAR-22	14-MAR-22
14	1414	personnel_sales	src_products	Pot	14-MAR-22	14-MAR-22
15	1515	personnel_sales	src_products	Mineral	14-MAR-22	14-MAR-22
16	1616	personnel_sales	src_products	Deodorant	14-MAR-22	14-MAR-22

I WILL CREATE ALL REST TABLES IN NEXT COMMIT

EXPLICIT CURSOR

I USED EXPLICIT CURSOR IN ALL PROCEDURES FOR SELECT COUNT OF ROWS IN TABLE, YOU CAN SEE AN EXAMPLE HERE

```

PROCEDURE PRC_LOAD_CE_CHANNEL_CLASSES IS

    COUNT_OF_ROWS_BEFORE NUMBER;
    COUNT_OF_ROWS_AFTER  NUMBER;
    L_ROWS                NUMBER;
    ROW_CH_CL             CE_CHANNEL_CLASSES%ROWTYPE;
    L_PROCEDURE_NAME      VARCHAR2(100) := 'prc_load_CE_CHANNEL_CLASSES';
    L_TABLE               VARCHAR2(100) := 'CE_CHANNEL_CLASSES';
    L_CONTEXT              VARCHAR2(100) := 'LOADING CE_CHANNEL_CLASSES: started';
    CURSOR CH_CL IS
    SELECT
        *
    FROM
        CE_CHANNEL_CLASSES;

BEGIN

--example of Explicit Cursor
    OPEN CH_CL;
    LOOP
        FETCH CH_CL INTO ROW_CH_CL;
        COUNT_OF_ROWS_BEFORE := CH_CL%ROWCOUNT;
        IF CH_CL%NOTFOUND THEN
            EXIT;
        END IF;
    END LOOP;

    LOGGING(1, L_PACKAGE_NAME, L_PROCEDURE_NAME, L_TABLE, L_CONTEXT,
            NULL, SYSDATE, 'START', NULL);

    L_CONTEXT := 'count of row before';
    LOGGING(1, L_PACKAGE_NAME, L_PROCEDURE_NAME, L_TABLE, L_CONTEXT,
            COUNT_OF_ROWS_BEFORE, SYSDATE, 'START', NULL);

```

IMPLICIT CURSOR

I USED IT IN EVERY PROCEDURE. YOU CAN SEE AN PART OF CODE EXAMPLE HERE:

```

    L_ROWS := SQL%ROWCOUNT;
    L_CONTEXT := 'LOADING CE_CHANNEL_CLASSES: merge statement';
    L_CONTEXT := 'LOADING CE_PROMOTION_CATEGORIES: merge statement';
    LOGGING(2, L_PACKAGE_NAME, L_PROCEDURE_NAME, L_TABLE, L_CONTEXT,
            L_ROWS, SYSDATE, 'PROCEED', NULL);

```

EXECUTE IMMEDIATE

I CREATED PROCEDURE FOR TRUNCATE TABLE, NAME OF TABLE I USED AS PARAMETER IN IT.

```

create or replace procedure bl_cl.prc_truncate_table(table_name in varchar2)
AS
begin
    Execute IMMEDIATE 'Truncate table '|| table_name;
end prc_truncate_table;

exec bl_cl.prc_truncate_table('CE_SALES');

```

2. ADD LOGGING FUNCTIONALITY

CREATE LOGGING TABLE

CREATE TABLE BL_CL.LOG_TABLE (

```

STEP_NUMBER NUMBER,
SESSION_ID VARCHAR2(200),
SESSION_USER VARCHAR2(200),
DB_NAME VARCHAR2(200),
OS_USER VARCHAR2(200),
TERMINAL VARCHAR(200),
PACKAGE_NAME VARCHAR2(200),
PROCEDURE_NAME VARCHAR2(200),
TABLE_NAME VARCHAR2(200),
"CONTEXT" VARCHAR2(200),
ROWS_PROCESSED NUMBER,
"TIMESTAMP" TIMESTAMP,
MESSAGE VARCHAR2(200),
ERROR_CODE NUMBER
);
CREATE PROCEDURE TO FILL LOGGING TABLE

```

```

CREATE OR REPLACE PROCEDURE BL_CL.LOGGING (
  PRC_STEP_NUMBER IN NUMBER DEFAULT NULL,
  PRC_PACKAGE_NAME IN VARCHAR2 DEFAULT '---',
  PRC_PROCEDURE_NAME IN VARCHAR2 DEFAULT '---',
  PRC_TABLE_NAME IN VARCHAR2 DEFAULT '---',
  PRC_CONTEXT IN VARCHAR2 DEFAULT '---',
  PRC_ROWS_PROCESSED IN NUMBER DEFAULT NULL,
  PRC_TIMESTAMP IN DATE DEFAULT SYSDATE,
  PRC_MESSAGE IN VARCHAR2 DEFAULT '---',
  PRC_ERROR_CODE IN NUMBER DEFAULT NULL
) IS

```

```

PRAGMA AUTONOMOUS_TRANSACTION;
L_SESSION_ID VARCHAR2(200);
L_SESSION_USER VARCHAR2(200);
L_DB_NAME VARCHAR2(200);
L_OS_USER VARCHAR2(200);
L_TERMINAL VARCHAR2(200);
L_TIMESTAMP DATE := SYSDATE;
BEGIN
  L_SESSION_ID := DBMS_SESSION.UNIQUE_SESSION_ID;
  L_SESSION_USER := TO_CHAR(SYS_CONTEXT('USERENV', 'SESSION_USER'));
  L_DB_NAME := TO_CHAR(SYS_CONTEXT('USERENV', 'DB_NAME'));
  L_OS_USER := TO_CHAR(SYS_CONTEXT('USERENV', 'OS_USER'));
  L_TERMINAL := TO_CHAR(SYS_CONTEXT('USERENV', 'TERMINAL'));
  INSERT INTO LOG_TABLE (
    STEP_NUMBER,
    SESSION_ID,

```

```

SESSION_USER,
DB_NAME,
OS_USER,
TERMINAL,
PACKAGE_NAME,
PROCEDURE_NAME,
TABLE_NAME,
"CONTEXT",
ROWS_PROCESSED,
"TIMESTAMP",
MESSAGE,
ERROR_CODE
) VALUES (
    PRC_STEP_NUMBER,
    L_SESSION_ID,
    L_SESSION_USER,
    L_DB_NAME,
    L_OS_USER,
    L_TERMINAL,
    PRC_PACKAGE_NAME,
    PRC_PROCEDURE_NAME,
    PRC_TABLE_NAME,
    PRC_CONTEXT,
    PRC_ROWS_PROCESSED,
    L_TIMESTAMP,
    PRC_MESSAGE,
    PRC_ERROR_CODE
);

COMMIT;
EXCEPTION
    WHEN OTHERS THEN
        ROLLBACK;
END LOGGING;
RESULT OF LOGGING

```

Script Output × Query Result × Query Result 1 × Query Result 2 × Query Result 3 ×														
All Rows Fetched: 41 in 0.004 seconds														
	ST...	SESSION_ID	SESS...	DB...	OS_USER	TERMINAL	PACKAGE_NAME	PROCED...	TABLE_NAME	CONTEXT	ROWS_PROCESSED	TIMESTAMP	MESSAGE	ERROR_CODE
1		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	LOADING CE_PROMOTION_CATEGORIES: started		(null)	14-09A8-22 07.51.16.0000000000	PM START	(null)
2		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	count of row before			614-09A8-22 07.51.16.0000000000	PM START	(null)
3		201F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	LOADING CE_PROMOTION_CATEGORIES: merge statement		(null)	014-09A8-22 07.51.16.0000000000	PM PROCEED	(null)
4		301F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	count of row after			614-09A8-22 07.51.16.0000000000	PM END	(null)
5		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	LOADING CE_PROMOTION_CATEGORIES: started		(null)	14-09A8-22 07.51.52.0000000000	PM START	(null)
6		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	count of row before			614-09A8-22 07.51.52.0000000000	PM START	(null)
7		201F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	LOADING CE_PROMOTION_CATEGORIES: merge statement		(null)	014-09A8-22 07.51.52.0000000000	PM PROCEED	(null)
8		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_PROMOTION_CATEGORIES	count of row after			614-09A8-22 07.51.52.0000000000	PM END	(null)
9		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	LOADING CE_BRANDS: started		(null)	14-09A8-22 08.01.04.0000000000	PM START	(null)
10		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	count of row before			314-09A8-22 08.01.04.0000000000	PM START	(null)
11		201F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	LOADING CE_PRODUCT_BRANDS sse 1: merge statement		(null)	42314-09A8-22 08.01.04.0000000000	PM PROCEED	(null)
12		201F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	LOADING CE_PRODUCT_BRANDS sse 2: merge statement		(null)	42314-09A8-22 08.01.04.0000000000	PM PROCEED	(null)
13		301F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	count of row after			314-09A8-22 08.01.04.0000000000	PM END	(null)
14		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	LOADING CE_BRANDS: started		(null)	14-09A8-22 08.01.59.0000000000	PM START	(null)
15		101F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	count of row before			84714-09A8-22 08.01.59.0000000000	PM START	(null)
16		201F93D1E0001	BL_CL	XE	Anastasi...	unknown	pkg_load_inf_tables prc_load...	CE_BRANDS	LOADING CE_PRODUCT_BRANDS sse 1: merge statement		(null)	014-09A8-22 08.01.59.0000000000	PM PROCEED	(null)