**ASSIGNEMENT**

**1.** **Understand the commonly used Data Models to build DWH**

**Identify the given data model and briefly explain about it.**

The given data model is in the form of snowflake schema.

**Snowflake Schema:**

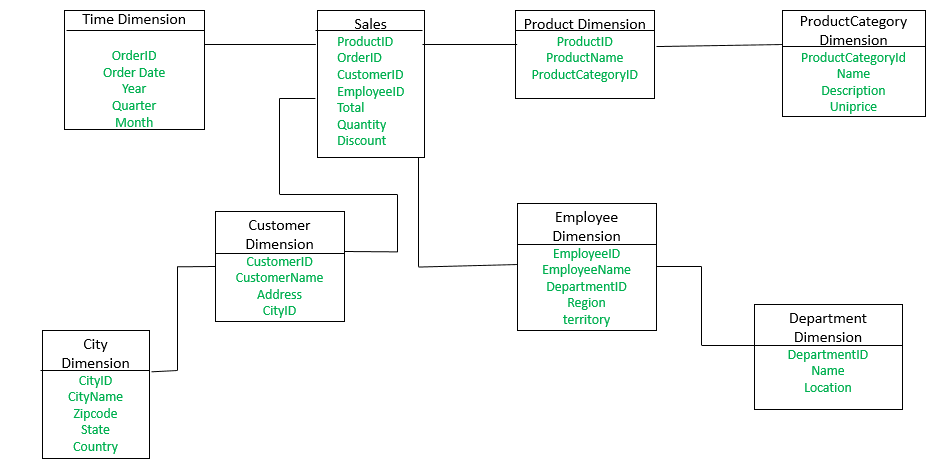
The snowflake schema is a variant of the star schema. Here, the centralized fact table is connected to multiple dimensions.

In the snowflake schema, dimensions are present in a normalized form in multiple related tables.

The snowflake structure materialized when the dimensions of a star schema are detailed and highly structured, having several levels of relationship, and the child tables have multiple parent tables.

The snowflake effect affects only the dimension tables and does not affect the fact tables.

**Example:**



The **Employee**dimension table now contains the attributes: Employee ID, Employee Name, Department ID, Region and Territory. The Department ID attribute links with the **Employee**table with the **Department**dimension table.

The **Department**dimension is used to provide detail about each department, such as the Name and Location of the department. The **Customer**dimension table now contains the attributes: Customer ID, Customer Name, Address, City ID. The City ID attributes link the **Customer**dimension table with the **City**dimension table.

The **City**dimension table has details about each city such as City Name, Zip code, State, and Country.

**2**. **Understand how to set the dependencies during Stage tables and Target Tables load**

**1. First we have to take source data from the table.**

**2. We have to set primary keys.**

**3. Remove all redundancy data from the table and update foreign keys.**

**4. Then, load the data .**

**5. This process is called etl process.**

**3.** **What are common issues with this model?**

**Advantages:**

1. Due to normalization in the Snowflake schema, the redundancy is reduced and therefore, it becomes easy to maintain and the save storage space.

**Disadvantage:**

1. Harder to design compared to a star schema.

2. The primary disadvantage of the snowflake schema is the additional maintenance efforts required due to the increasing number of lookup tables.

It is also known as a multi fact star schema.

3. More tables more join so more query execution time.

4**. Are there any options to convert this model to START? If SO, how ?**

1. Yes the given model can be converted to snowflake model to star model.

2. The snowflake model is an extension of a star model.

3. Snow flaking is a method of normalizing the dimension tables in a STAR model.

4. When we normalize all the dimension tables entirely, the resultant structure resembles a snowflake with the fact table in the middle.

**2. Create Stage Tables**

**1. Provide all the CREATE statements**

**KPI\_STG\_CHANNEL**

CREATE TABLE KPI\_STG\_CHANNEL(

DATE\_CREATED DATE,IS\_RECORD\_INACTIVE VARCHAR2(10),

LAST\_MODIFIED\_DATE DATE,LIST\_ID NUMBER,

LIST\_ITEM\_NAME VARCHAR2(20)

);

SELECT \* FROM KPI\_STG\_CHANNEL;

**KPI\_STG\_TRANSACTIONS**

CREATE TABLE KPI\_STG\_TRANSACTIONS (

TRANSACTION\_ID NUMBER,TRANID NUMBER,

TRANSACTION\_TYPE VARCHAR2(50), TRANDATE DATE,

CHANNEL\_ID NUMBER

);

SELECT \* FROM KPI\_STG\_TRANSACTIONS;

**KPI\_STG\_ITEMS**

CREATE TABLE KPI\_STG\_ITEMS (

ITEM\_ID NUMBER, SKU VARCHAR2(100),

TYPE\_NAME VARCHAR2(30),SALESDESCRIPTION VARCHAR2(100),

CLASS\_ID NUMBER,

WS\_MERCHANDISE\_DEPARTMENT\_ID NUMBER,

WS\_MERCHANDISE\_COLLECTION\_ID NUMBER,

WS\_MERCHANDISE\_CLASS\_ID NUMBER,

WS\_MERCHANDISE\_SUBCLASS\_ID NUMBER

);

SELECT \* FROM KPI\_STG\_ITEMS;

**KPI\_STG\_DEPARTMENTS**

CREATE TABLE KPI\_STG\_DEPARTMENTS (

DATE\_LAST\_MODIFIED DATE, DEPARTMENT\_ID NUMBER,

ISINACTIVE VARCHAR2(5), NAME VARCHAR2(50),

WS\_DESCRIPTION VARCHAR2(50)

);

SELECT \* FROM KPI\_STG\_DEPARTMENTS;

**KPI\_STG\_LOCATIONS**

CREATE TABLE KPI\_STG\_LOCATIONS (

LOCATION\_ID NUMBER,ADDRESS VARCHAR2(120),

CITY VARCHAR2(50), COUNTRY VARCHAR2(50),

DATE\_LAST\_MODIFIED DATE,FULL\_NAME VARCHAR2(60),

ISINACTIVE VARCHAR2(5), NAME VARCHAR2(50)

);

SELECT \* FROM KPI\_STG\_LOCATIONS;

**KPI\_STG\_CLASSES**

CREATE TABLE KPI\_STG\_CLASSES (

CLASS\_ID NUMBER, DATE\_LAST\_MODIFIED DATE,

FULL\_NAME VARCHAR2(30),ISINACTIVE VARCHAR2(5),

NAME VARCHAR2(5)

);

SELECT \* FROM KPI\_STG\_CLASSES;

**KPI\_STG\_TRANSACTIONS\_LINES**

CREATE TABLE KPI\_STG\_TRANSACTIONS\_LINES (

TRANSACTION\_ID NUMBER,TRANSACTION\_LINE\_ID NUMBER,

LOCATION\_ID NUMBER, DEPARTMENT\_ID NUMBER,

ITEM\_ID NUMBER, AMOUNT NUMBER,

COST NUMBER, UNITS NUMBER

);

SELECT \* FROM KPI\_STG\_TRANSACTIONS\_LINES;

**KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR**

CREATE TABLE KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR (

ITEM\_MERCHANDISE\_DEPARTMENT\_ID NUMBER,

DESCRIPTION VARCHAR2(20),

ITEM\_MERCHANDISE\_DEPARTMENT\_NA VARCHAR2(10)

);

SELECT \* FROM KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR;

**KPI\_STG\_ITEM\_MERCHANDISE\_COLLE**

CREATE TABLE KPI\_STG\_ITEM\_MERCHANDISE\_COLLE (

ITEM\_MERCHANDISE\_COLLECTION\_ID NUMBER,

DESCRIPTION VARCHAR2(50),

ITEM\_MERCHANDISE\_COLLECTION\_NA VARCHAR2(50)

);

**KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL**

CREATE TABLE KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL (

ITEM\_MERCHANDISE\_SUBCLASS\_ID NUMBER,

DESCRIPTION VARCHAR2(50),

ITEM\_MERCHANDISE\_SUBCLASS\_NAME VARCHAR2(10)

);

SELECT \* FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL;

**KPI\_STG\_ITEM\_MERCHANDISE\_CLASS**

CREATE TABLE KPI\_STG\_ITEM\_MERCHANDISE\_CLASS (

ITEM\_MERCHANDISE\_CLASS\_ID NUMBER,

DESCRIPTION VARCHAR2(50),

ITEM\_MERCHANDISE\_CLASS\_NAME VARCHAR2(5)

);

SELECT \* FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS;

**3.Load the data in the tables**

**1.Provide the INSERT Scripts**

**KPI\_STG\_CHANNEL**

insert into KPI\_STG\_CHANNEL values(to\_date('2012/12/18','yyyy/mm/dd'),'F',to\_date('2013/04/30','yyyy/mm/dd'),1,'Retail');

insert into KPI\_STG\_CHANNEL values(to\_date('2012/12/18','yyyy/mm/dd'),'F',to\_date('2013/04/30','yyyy/mm/dd'),2,'DTC');

insert into KPI\_STG\_CHANNEL values(to\_date('2013/04/30','yyyy/mm/dd'),'F',to\_date('2013/04/30','yyyy/mm/dd'),3, 'Care Center');

insert into KPI\_STG\_CHANNEL values(to\_date('2013/05/07','yyyy/mm/dd'),'F',to\_date('2013/05/07','yyyy/mm/dd'),4,'RTC');

insert into KPI\_STG\_CHANNEL values(to\_date('2015/08/06','yyyy/mm/dd'),'F',to\_date('2015/08/14','yyyy/mm/dd'),5,'Wholesale');

**KPI\_STG\_TRANSACTIONS**

insert into KPI\_STG\_TRANSACTIONS values(185339066, 2186178, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185339085, 2186192, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185339701, 2186202, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185340234, 2186227, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185341664, 2186252, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185343047, 2186316, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185343053, 2186320, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185343282, 2186341, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185346146, 2186455, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

insert into KPI\_STG\_TRANSACTIONS values(185346454, 2186460, 'Sales Order', to\_date('2021/09/01','yyyy/mm/dd'), 2);

**KPI\_STG\_DEPARTMENTS**

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2015/09/25','yyyy/mm/dd'), 1, 'No', 7001, 'Store WS NSW, Bondi Junction, 2/13(7001)');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2020/11/11','yyyy/mm/dd'), 2, 'No', 7002, 'Store PB NSW, Bondi Junction, 2/13(7002)');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2020/11/11','yyyy/mm/dd'), 3, 'No', 7003, 'Store PK NSW, Bondi Junction, 2/13 (7003)');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2015/09/25','yyyy/mm/dd'), 4, 'No', 7004, 'Store WE NSW, Bondi Junction, 2/13 (7004)');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2012/12/18','yyyy/mm/dd'), 5, 'Yes',7211, 'NULL');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2012/12/18','yyyy/mm/dd'), 11,'Yes', 'AUS Corp Misc', 'NULL');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2012/12/18','yyyy/mm/dd'), 12,'Yes','2012DC/Ops- RTL','NULL');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2012/12/18','yyyy/mm/dd'), 15,'Yes','DC/Ops- DTC (tbd)','NULL');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2012/12/18','yyyy/mm/dd'), 16,'Yes','Legal Entity (tbd)','NULL');

insert into KPI\_STG\_DEPARTMENTS values(to\_date('2013/07/31','yyyy/mm/dd'), 20,'No', 7111, 'WS Singapore LE â€“ Global Purchases');

**KPI\_STG\_ITEMS**

Insert into KPI\_STG\_ITEMS values(11068456, 5732022, 'Non-inventory Item','Andes UK Sectinal Set 02:RA 2.5 Str Sfa/Corner/Ottm Poly Performance Velvet Petrol DP', 1 , 47 , 408305 , 101 , 434 );

Insert into KPI\_STG\_ITEMS values(11086902, 6325288,'Non-inventory Item','Harlow Convertible Crib Antique Gray DELUXE',

5 ,32, 197904,283, 52803);

Insert into KPI\_STG\_ITEMS values(11114043, 1458567,'Non-inventory Item','Tanner Round 44 inch Dining Table', 1 , 20 , 1986806, 205, 52302);

Insert into KPI\_STG\_ITEMS values(163 , 18143,'Inventory Item','Flameless Candle4 inchesIvory' , 4, 28 , 1930706, 301, 485);

Insert into KPI\_STG\_ITEMS values(164, 18150,'Inventory Item','Flameless Candle6 inchesIvory',4 , 28 , 1930706, 301, 485);

Insert into KPI\_STG\_ITEMS values(218, 111518, 'Inventory Item','PB Essentials 300TC Fitted SheetQueenWhite',4 , 4, 641210,4 , 2 );

Insert into KPI\_STG\_ITEMS values(223, 111914, 'Inventory Item','PB Essentials 300TC ShamsEuroWhite', 4 , 4 , 123, 74 , 126 );

Insert into KPI\_STG\_ITEMS values(224, 111930, 'Inventory Item','PB Essentials 300TC ShamsStandardWhite',4 , 4 , 123 ,74 , 106);

Insert into KPI\_STG\_ITEMS values( 226, 111989,'Inventory Item','PB Essential 300TC Pillowcase S/2KingWhite', 4 , 4 , 4 ,4 , 2);

Insert into KPI\_STG\_ITEMS values(229, 115162,'Inventory Item','Santino Pitcher',4 , 58 , 363107, 120, 3613);

**KPI\_STG\_TRANSACTIONS\_LINES**

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066 , 1 , 383 , 28 , 9918508, 31 , 0 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066, 2 , 383 , 28 , 3507200 , 56 , -20 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066 , 3 , 383 , 28 , 1406935, 31, -12 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066 , 4 , 383 , 28 , 9222, 56 , -28 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066 , 5 , 383 , 28 , 2046731, 28 , -16 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066, 6 , 383 , 28 , 919828, 153 , -73 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339085 , 1 , 383 , 28 , 962429, 22 , -12 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339085 , 2 , 383 , 28 , 6066781, 9 , -5 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339066 , 3 , 383 , 28 , 9222, 56 , -28 , 1 );

insert into KPI\_STG\_TRANSACTIONS\_LINES values(185339701 , 1 , 383 , 28 , 7965554, 125 , -58 , 1 );

**KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION**

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(4, 'PB ESSENTIALS BEDDING', 'PB1015');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(5, 'MODERN WIRE COLLECTION', 'MODERN WIRE COLLECTION');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(6, 'WE NEW LINEN COTTON GROMMET CURTAIN', 'WE7078');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(7, 'WE BULLS EYE PILLOW COVER', 'WE3386');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(8, 'PB HARRISON', 'PB159');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(9, 'PB COLTON WOVEN TRUNK', 'PB8217');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(10, 'PK CHAMOIS STRLR', 'PK133');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(11, 'PB CADEN', 'PB3680');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(12, 'PK CPC CHAMOIS', 'PK9157');

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_COLLECTION VALUES(13, 'PB REBECCA', 'PB816');

**KPI\_STG\_ITEM\_MERCHANDISE\_CLASS**

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(4,'SHEETS',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(5,'WILLIAMS SONOMA',69);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(6,'SOLID CURTAINS',7);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(7,'VINEGARS',2);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(8,'PATTERN + STRIPE PLW',3);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(9,'BASKETS AND STORAGE',4);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(10,'BLANKETS',6);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(11,'ACCENTS AND OTTOMANS',8);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(12,'CHANGING PADS',10);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_CLASS VALUES(13,'NURSERY WRAPS',7);

**KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS**

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(4,'LIGHT FILTERING',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(5,'BALSAMIC',3);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(6,'UNASSIGNED',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(7,'WOVEN',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(8,'ICON',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(9,'STOOLS',1);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(10,'SOLID COVERS',2);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(11,'DO NOT USE',4);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(12,'NURSERY WRAPS',5);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_SUBCLASS VALUES(13,'STOCKED ',1)

**KPI\_STG\_CLASSES**

INSERT INTO KPI\_STG\_CLASSES VALUES(1, TO\_DATE('2018-02-13','YYYY-MM-DD'), 'WE','No', 'WE');

INSERT INTO KPI\_STG\_CLASSES VALUES(3, TO\_DATE('2013-06-13','YYYY-MM-DD'), 'PT','No', 'PT');

INSERT INTO KPI\_STG\_CLASSES VALUES(4, TO\_DATE('2013-06-13','YYYY-MM-DD'), 'PB','No', 'PB');

INSERT INTO KPI\_STG\_CLASSES VALUES(5, TO\_DATE('2013-06-13','YYYY-MM-DD'), 'PK','No', 'PK');

INSERT INTO KPI\_STG\_CLASSES VALUES(6, TO\_DATE('2013-06-13','YYYY-MM-DD'), 'WS','No', 'WS');

INSERT INTO KPI\_STG\_CLASSES VALUES(7, TO\_DATE('2014-04-18','YYYY-MM-DD'), 'DC','No', 'DC');

**KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT**

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(4, 'PB BEDDING', 203);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(5, 'WS CUTLERY', 105);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(6, 'WE WINDOW', 808);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(7, 'WS SAVORY FOOD', 108);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(8, 'WE PILLOWS', 810);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(9, 'PB FUNC ACC', 221);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(10, 'PK NURSERY BEDDING', 918);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(11, 'PB OC/MEDIA FURNTURE', 201);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(12, 'PK BATH', 910);

INSERT INTO KPI\_STG\_ITEM\_MERCHANDISE\_DEPARTMENT VALUES(13, 'PK RUGS', 902);

**KPI\_STG\_LOCATIONS**

INSERT INTO KPI\_STG\_LOCATIONS VALUES(2,'Singapore', 'NULL', 'SG', TO\_DATE('2017-08-07','YYYY-MM-DD'), 'Test Location', 'YES', 'Test Location');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(3,'Singapore', 'NULL', 'SG', TO\_DATE('2017-08-07','YYYY-MM-DD'), 'Test Location 2', 'YES', 'Test Location 2');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(4,'Australia', 'NULL', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'), 'Test Location 4', 'YES', 'Test Location 4');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(5,'07001 - WS NSW, Bondi Junction 472 Oxford Street Bondi Junction NSW 2022 Australia',

'Bondi Junction', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'),'D07001 - WS NSW, Bondi Junction', 'YES', 'D07001 - WS NSW, Bondi Junction');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(6,'07002 - PB NSW, Bondi Junction 470 Oxford Street Bondi Junction NSW 2022 Australia',

'Bondi Junction', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'),

'D07002 - PB NSW, Bondi Junction', 'YES', 'D07002 - PB NSW, Bondi Junction');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(7,'07003 - PK NSW, Bondi Junction 468 Oxford Street Bondi Junction NSW 2022 Australia',

'Bondi Junction', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'),

'D07003 - PK NSW, Bondi Junction', 'YES', 'D07003 - PK NSW, Bondi Junction');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(8,'07004 - WE NSW, Bondi Junction Bondi Junction NSW 2022 Australia',

'Bondi Junction', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'),

'D07004 - WE NSW, Bondi Junction', 'YES', 'D07004 - WE NSW, Bondi Junction');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(9,'RECDOCK (71-SYD) Singapore',

'NULL', 'SG', TO\_DATE('2019-09-26','YYYY-MM-DD'),

'RECDOCK (71-SYD)', 'YES', 'RECDOCK (71-SYD)');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(10,'SYD DC 6 Milner Avenue Horsley Park NSW 2175 Australia',

'Horsley Park', 'AU', TO\_DATE('2021-08-24','YYYY-MM-DD'),

'SYD DC', 'YES', 'SYD DC');

INSERT INTO KPI\_STG\_LOCATIONS VALUES(11,'07005 - WE Vic Chapel St 2013 NSW Australia',

'NULL', 'AU', TO\_DATE('2017-08-07','YYYY-MM-DD'),

'D07005 - WE Vic Chapel St 2013', 'YES', 'D07005 - WE Vic Chapel St 2013');

**4. Analyse the Business Keys if they meet Primary key conditions for all Stage tables**

**1. Provide the SQLs to execute to ensure Primary Key conditions on business key**

**KPI\_STG\_CHANNEL**

SELECT COUNT(DISTINCT DATE\_CREATED) FROM KPI\_STG\_CHANNEL WHERE DATE\_CREATED IS NOT NULL;

4

SELECT COUNT(DISTINCT IS\_RECORD\_INACTIVE) FROM KPI\_STG\_CHANNEL WHERE IS\_RECORD\_INACTIVE IS NOT NULL;

1

SELECT COUNT(DISTINCT LAST\_MODIFIED\_DATE) FROM KPI\_STG\_CHANNEL WHERE LAST\_MODIFIED\_DATE IS NOT NULL;

3

SELECT COUNT(DISTINCT LIST\_ID), FROM KPI\_STG\_CHANNEL WHERE LIST\_ID IS NOT NULL;

5

SELECT COUNT(DISTINCT LIST\_ITEM\_NAME) FROM KPI\_STG\_CHANNEL WHERE LIST\_ITEM\_NAME IS NOT NULL;

5

**KPI\_STG\_CLASSES**

SELECT COUNT(CLASS\_ID) FROM KPI\_STG\_CLASSES;

SELECT COUNT(DISTINCT CLASS\_ID) FROM KPI\_STG\_CLASSES WHERE CLASS\_ID IS NOT NULL;

6

SELECT COUNT(DISTINCT DATE\_LAST\_MODIFIED) FROM KPI\_STG\_CLASSES WHERE DATE\_LAST\_MODIFIED IS NOT NULL;

3

SELECT COUNT(DISTINCT FULL\_NAME) FROM KPI\_STG\_CLASSES WHERE FULL\_NAME IS NOT NULL;

6

SELECT COUNT(DISTINCT ISINACTIVE) FROM KPI\_STG\_CLASSES WHERE ISINACTIVE IS NOT NULL;

1

SELECT COUNT(DISTINCT NAME) FROM KPI\_STG\_CLASSES WHERE NAME IS NOT NULL;

6

**KPI\_STG\_DEPARTMENTS**

105

SELECT COUNT(\*) FROM KPI\_STG\_DEPARTMENTS;

SELECT COUNT(DISTINCT DATE\_LAST\_MODIFIED) FROM KPI\_STG\_DEPARTMENTS WHERE DATE\_LAST\_MODIFIED IS NOT NULL;

39

SELECT COUNT(DISTINCT DEPARTMENT\_ID) FROM KPI\_STG\_DEPARTMENTS WHERE DEPARTMENT\_ID IS NOT NULL;

105

SELECT COUNT(DISTINCT ISINACTIVE) FROM KPI\_STG\_DEPARTMENTS WHERE ISINACTIVE IS NOT NULL;

2

SELECT COUNT(DISTINCT NAME) FROM KPI\_STG\_DEPARTMENTS WHERE NAME IS NOT NULL;

105

SELECT COUNT(DISTINCT WS\_DESCRIPTION) FROM KPI\_STG\_DEPARTMENTS WHERE WS\_DESCRIPTION IS NOT NULL;

100

**KPI\_STG\_ITEM\_MERCHANDISE\_CLASS**

83

SELECT COUNT(\*) FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS;

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_CLASS\_ID) FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS WHERE ITEM\_MERCHANDISE\_CLASS\_ID IS NOT NULL;

83

SELECT COUNT(DISTINCT DESCRIPTION) FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS WHERE DESCRIPTION IS NOT NULL;

72

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_CLASS\_NAME) FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS WHERE ITEM\_MERCHANDISE\_CLASS\_NAME IS NOT NULL;

17

**KPI\_STG\_ITEM\_MERCHANDISE\_COLLE**

86

SELECT COUNT(\*) FROM KPI\_STG\_ITEM\_MERCHANDISE\_COLLE;

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_COLLECTION\_ID) FROM KPI\_STG\_ITEM\_MERCHANDISE\_COLLE WHERE ITEM\_MERCHANDISE\_COLLECTION\_ID IS NOT NULL;

86

SELECT COUNT(DISTINCT DESCRIPTION) FROM KPI\_STG\_ITEM\_MERCHANDISE\_COLLE WHERE DESCRIPTION IS NOT NULL;

86

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_COLLECTION\_NA) FROM KPI\_STG\_ITEM\_MERCHANDISE\_COLLE WHERE ITEM\_MERCHANDISE\_COLLECTION\_NA IS NOT NULL;

86

**KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR**

87

SELECT COUNT(\*) FROM KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR;

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_DEPARTMENT\_ID) FROM KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR WHERE ITEM\_MERCHANDISE\_DEPARTMENT\_ID IS NOT NULL;

87

SELECT COUNT(DISTINCT DESCRIPTION) FROM KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR WHERE DESCRIPTION IS NOT NULL;

87

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_DEPARTMENT\_NA) FROM KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR WHERE ITEM\_MERCHANDISE\_DEPARTMENT\_NA IS NOT NULL;

87

**KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL**

85

SELECT COUNT(\*) FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL;

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_SUBCLASS\_ID) FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL WHERE ITEM\_MERCHANDISE\_SUBCLASS\_ID IS NOT NULL;

85

SELECT COUNT(DISTINCT DESCRIPTION) FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL WHERE DESCRIPTION IS NOT NULL;

53

SELECT COUNT(DISTINCT ITEM\_MERCHANDISE\_SUBCLASS\_NAME) FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL WHERE ITEM\_MERCHANDISE\_SUBCLASS\_NAME IS NOT NULL;

12

**KPI\_STG\_ITEMS**

13101

SELECT COUNT(\*) FROM KPI\_STG\_ITEMS;

SELECT COUNT(DISTINCT ITEM\_ID) FROM KPI\_STG\_ITEMS WHERE ITEM\_ID IS NOT NULL;

13098

SELECT COUNT(DISTINCT SKU) FROM KPI\_STG\_ITEMS WHERE SKU IS NOT NULL;

13097

SELECT COUNT(DISTINCT TYPE\_NAME) FROM KPI\_STG\_ITEMS WHERE TYPE\_NAME IS NOT NULL;

2

SELECT COUNT(DISTINCT SALESDESCRIPTION) FROM KPI\_STG\_ITEMS WHERE SALESDESCRIPTION IS NOT NULL;

13069

SELECT COUNT(DISTINCT CLASS\_ID) FROM KPI\_STG\_ITEMS WHERE CLASS\_ID IS NOT NULL;

4

SELECT COUNT(DISTINCT WS\_MERCHANDISE\_DEPARTMENT\_ID) FROM KPI\_STG\_ITEMS WHERE WS\_MERCHANDISE\_DEPARTMENT\_ID IS NOT NULL;

87

SELECT COUNT(DISTINCT WS\_MERCHANDISE\_COLLECTION\_ID) FROM KPI\_STG\_ITEMS WHERE WS\_MERCHANDISE\_COLLECTION\_ID IS NOT NULL;

3738

SELECT COUNT(DISTINCT WS\_MERCHANDISE\_CLASS\_ID) FROM KPI\_STG\_ITEMS WHERE WS\_MERCHANDISE\_CLASS\_ID IS NOT NULL;

457

SELECT COUNT(DISTINCT WS\_MERCHANDISE\_SUBCLASS\_ID) FROM KPI\_STG\_ITEMS WHERE WS\_MERCHANDISE\_SUBCLASS\_ID IS NOT NULL;

1240

**KPI\_STG\_LOCATIONS**

114

SELECT COUNT(\*) FROM KPI\_STG\_LOCATIONS;

SELECT COUNT(DISTINCT LOCATION\_ID) FROM KPI\_STG\_LOCATIONS WHERE LOCATION\_ID IS NOT NULL;

114

SELECT COUNT(DISTINCT ADDRESS) FROM KPI\_STG\_LOCATIONS WHERE ADDRESS IS NOT NULL;

112

SELECT COUNT(DISTINCT CITY) FROM KPI\_STG\_LOCATIONS WHERE CITY IS NOT NULL;

34

SELECT COUNT(DISTINCT COUNTRY) FROM KPI\_STG\_LOCATIONS WHERE COUNTRY IS NOT NULL;

5

SELECT COUNT(DISTINCT DATE\_LAST\_MODIFIED) FROM KPI\_STG\_LOCATIONS WHERE DATE\_LAST\_MODIFIED IS NOT NULL;

31

SELECT COUNT(DISTINCT FULL\_NAME) FROM KPI\_STG\_LOCATIONS WHERE FULL\_NAME IS NOT NULL;

114

SELECT COUNT(DISTINCT ISINACTIVE) FROM KPI\_STG\_LOCATIONS WHERE ISINACTIVE IS NOT NULL;

2

SELECT COUNT(DISTINCT NAME) FROM KPI\_STG\_LOCATIONS WHERE NAME IS NOT NULL;

114

**KPI\_STG\_TRANSACTIONS**

SELECT COUNT(\*) FROM KPI\_STG\_TRANSACTIONS;

43932

SELECT COUNT(DISTINCT TRANSACTION\_ID) FROM KPI\_STG\_TRANSACTIONS WHERE TRANSACTION\_ID IS NOT NULL;

43924

SELECT COUNT(DISTINCT TRANID) FROM KPI\_STG\_TRANSACTIONS WHERE TRANID IS NOT NULL;

43924

SELECT COUNT(DISTINCT TRANSACTION\_TYPE) FROM KPI\_STG\_TRANSACTIONS WHERE TRANSACTION\_TYPE IS NOT NULL;

2

SELECT COUNT(DISTINCT TRANDATE) FROM KPI\_STG\_TRANSACTIONS WHERE TRANDATE IS NOT NULL;

30

SELECT COUNT(DISTINCT CHANNEL\_ID) FROM KPI\_STG\_TRANSACTIONS WHERE CHANNEL\_ID IS NOT NULL;

4

**KPI\_STG\_TRANSACTIONS\_LINES**

SELECT COUNT(\*) FROM KPI\_STG\_TRANSACTIONS\_LINES;

147616

SELECT COUNT(DISTINCT TRANSACTION\_ID) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE TRANSACTION\_ID IS NOT NULL;

43924

SELECT COUNT(DISTINCT TRANSACTION\_LINE\_ID) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE TRANSACTION\_LINE\_ID IS NOT NULL;

187

SELECT COUNT(DISTINCT LOCATION\_ID) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE LOCATION\_ID IS NOT NULL;

20

SELECT COUNT(DISTINCT DEPARTMENT\_ID) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE DEPARTMENT\_ID IS NOT NULL;

33

SELECT COUNT(DISTINCT ITEM\_ID) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE ITEM\_ID IS NOT NULL;

13097

SELECT COUNT(DISTINCT AMOUNT) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE AMOUNT IS NOT NULL;

1416

SELECT COUNT(DISTINCT COST) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE COST IS NOT NULL;

1430

SELECT COUNT(DISTINCT UNITS) FROM KPI\_STG\_TRANSACTIONS\_LINES WHERE UNITS IS NOT NULL;

104

**5.Delete the duplicate records if exists and maintain unique record**

**1.Provide the DELETE scripts using Analytical function**

**KPI\_STG\_ITEMS**

DELETE FROM KPI\_STG\_ITEMS

WHERE WS\_MERCHANDISE\_COLLECTION\_ID NOT IN (SELECT ITEM\_MERCHANDISE\_COLLECTION\_ID FROM KPI\_STG\_ITEM\_MERCHANDISE\_COLLE);

DELETE FROM KPI\_STG\_ITEMS

WHERE WS\_MERCHANDISE\_CLASS\_ID NOT IN (SELECT ITEM\_MERCHANDISE\_CLASS\_ID FROM KPI\_STG\_ITEM\_MERCHANDISE\_CLASS);

DELETE FROM KPI\_STG\_ITEMS

WHERE WS\_MERCHANDISE\_SUBCLASS\_ID NOT IN (SELECT ITEM\_MERCHANDISE\_SUBCLASS\_ID FROM KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL);

**KPI\_STG\_TRANSACTIONS\_LINES**

DELETE FROM KPI\_STG\_TRANSACTIONS\_LINES

WHERE ITEM\_ID NOT IN (SELECT ITEM\_ID FROM KPI\_STG\_ITEMS);

DELETE FROM KPI\_STG\_TRANSACTIONS\_LINES

WHERE DEPARTMENT\_ID NOT IN (SELECT DEPARTMENT\_ID FROM KPI\_STG\_DEPARTMENTS);

DELETE FROM KPI\_STG\_TRANSACTIONS\_LINES

WHERE LOCATION\_ID NOT IN (SELECT LOCATION\_ID FROM KPI\_STG\_LOCATIONS);

**KPI\_STG\_TRANSACTIONS**

DELETE FROM KPI\_STG\_TRANSACTIONS

WHERE CHANNEL\_ID NOT IN (SELECT LIST\_ID FROM KPI\_STG\_CHANNEL);

COMMIT

**6. Create Primary Key on Stage tables**

**Provide the scripts used to create Primary Key**

PRIMARY KEY

1. ALTER TABLE KPI\_STG\_CHANNEL ADD PRIMARY KEY(LIST\_ID);
2. ALTER TABLE KPI\_STG\_CLASSES ADD PRIMARY KEY(CLASS\_ID);
3. ALTER TABLE KPI\_STG\_DEPARTMENTS ADD PRIMARY KEY(DEPARTMENT\_ID);
4. ALTER TABLE KPI\_STG\_ITEM\_MERCHANDISE\_CLASS ADD PRIMARY KEY(ITEM\_MERCHANDISE\_CLASS\_ID);
5. ALTER TABLE KPI\_STG\_ITEM\_MERCHANDISE\_COLLE ADD PRIMARY KEY(ITEM\_MERCHANDISE\_COLLECTION\_ID);
6. ALTER TABLE KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR ADD PRIMARY KEY(ITEM\_MERCHANDISE\_DEPARTMENT\_ID);
7. ALTER TABLE KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL ADD PRIMARY KEY(ITEM\_MERCHANDISE\_SUBCLASS\_ID);
8. ALTER TABLE KPI\_STG\_ITEMS ADD PRIMARY KEY(ITEM\_ID);
9. ALTER TABLE KPI\_STG\_LOCATIONS ADD PRIMARY KEY(LOCATION\_ID);
10. ALTER TABLE KPI\_STG\_TRANSACTIONS ADD PRIMARY KEY(TRANSACTION\_ID);
11. ALTER TABLE KPI\_STG\_TRANSACTIONS\_LINES ADD PRIMARY KEY(TRANSACTION\_ID,TRANSACTION\_LINE\_ID);

**7.** **Identify the relationships between each table**

**Provide the SELECT SQLs executed to identify the relationships**

**FOREIGN KEYS**

**KPI\_STG\_TRANSACTIONS**

ALTER TABLE KPI\_STG\_TRANSACTIONS ADD CONSTRAINT FK\_KPI\_STG\_TRANSACTIONS

FOREIGN KEY(CHANNEL\_ID) REFERENCES KPI\_STG\_CHANNEL(LIST\_ID);

**KPI\_STG\_ITEMS**

1. ALTER TABLE KPI\_STG\_ITEMS ADD CONSTRAINT FK\_KPI\_STG\_ITEMS

FOREIGN KEY(CLASS\_ID) REFERENCES KPI\_STG\_CLASSES(CLASS\_ID);

2. ALTER TABLE KPI\_STG\_ITEMS ADD CONSTRAINT FK\_KP\_STG\_ITEMS

FOREIGN KEY(WS\_MERCHANDISE\_DEPARTMENT\_ID) REFERENCES KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR(ITEM\_MERCHANDISE\_DEPARTMENT\_ID);

3. ALTER TABLE KPI\_STG\_ITEMS ADD CONSTRAINT FK\_KPI\_STG\_ITEMS

FOREIGN KEY(WS\_MERCHANDISE\_COLLECTION\_ID) REFERENKPI\_STG\_ITEM\_MERCHANDISE\_COLLE(ITEM\_MERCHANDISE\_COLLECTION\_ID);

4. ALTER TABLE KPI\_STG\_ITEMS ADD CONSTRAINT FK\_KPI\_ST\_ITEMS

FOREIGN KEY(WS\_MERCHANDISE\_CLASS\_ID) REFERENCES KPI\_STG\_ITEM\_MERCHANDISE\_CLASS(ITEM\_MERCHANDISE\_CLASS\_ID);

5. ALTER TABLE KPI\_STG\_ITEMS ADD CONSTRAINT FK\_KPI\_STG\_ITEMS

FOREIGN KEY(WS\_MERCHANDISE\_SUBCLASS\_ID) REFERENCES KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL(ITEM\_MERCHANDISE\_SUBCLASS\_ID);

**KPI\_STG\_TRANSACTION\_LINES**

1. ALTER TABLE KPI\_STG\_TRANSACTIONS\_LINES ADD CONSTRAINT FK\_KPI\_STG\_TRANSACTIONS\_LINES

FOREIGN KEY (LOCATION\_ID) REFERENCES KPI\_STG\_LOCATIONS(LOCATION\_ID);

2.ALTER TABLE KPI\_STG\_TRANSACTIONS\_LINES ADD CONSTRAINT FK\_KPI\_TRANSACTIONS\_LINES

FOREIGN KEY(DEPARTMENT\_ID) REFERENCES KPI\_STG\_DEPARTMENTS(DEPARTMENT\_ID);

3. ALTER TABLE KPI\_STG\_TRANSACTIONS\_LINES ADD CONSTRAINT FK\_STG\_TRANSACTIONS\_LINES

FOREIGN KEY(ITEM\_ID) REFERENCES KPI\_STG\_ITEMS(ITEM\_ID);

**8. Create Target Tables**

**1. Create all the target tables**

**KPI\_LOCATION\_DIM**

create table KPI\_LOCATION\_DIM(

LOCATION\_ID NUMBER(20,0),ADDRESS VARCHAR(100),

CITY VARCHAR(50),COUNTRY VARCHAR(50),

DATE\_LAST\_MODIFIED DATE,FULL\_NAME VARCHAR(50),

ISINACTIVE VARCHAR(5),NAME VARCHAR(50),

KPI\_DW\_SKEY NUMBER(20,0),KPI\_DW\_INSERT\_DATE DATE,

KPI\_DW\_UPDATE\_DATE DATE

);

**KPI\_TRANSACTION\_LINE\_FACT**

CREATE TABLE KPI\_TRANSACTION\_LINE\_FACT(

TRANSACTION\_ID NUMBER(20,0),TRANSACTION\_LINE\_ID NUMBER(20,0),

TRANID VARCHAR(30), TRANSACTION\_TYPE VARCHAR(50),

TRANDATE DATE,KPI\_CHANNEL\_SKEY NUMBER(20,0),

KPI\_LOCATION\_SKEY NUMBER(20,0),KPI\_DEPARTMENT\_SKEY NUMBER(20,0),

KPI\_ITEM\_SKEY NUMBER(20,0),AMOUNT NUMBER(8,2),

COST NUMBER(8,2),UNITS NUMBER(5,0),

KPI\_DW\_SKEY NUMBER(20,0)

);

**KPI\_CHANNEL\_DIM**

create table KPI\_CHANNEL\_DIM (

DATE\_CREATED date,IS\_RECORD\_INACTIVE varchar2(100),

LAST\_MODIFIED\_DATE date,LIST\_ID number(20,0),

LIST\_ITEM\_NAME varchar2(20),KPI\_DW\_SKEYnumber(20,0),

KPI\_DW\_INSERT\_DATE date,KPI\_DW\_UPDATE\_DATE date

);

**KPI\_CLASS\_DIM**

create table KPI\_CLASS\_DIM (

CLASS\_ID number(20,0),DATE\_LAST\_MODIFIED date,

FULL\_NAME varchar2(30),ISINACTIVE varchar2(5),

NAME varchar2(5),KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,KPI\_DW\_UPDATE\_DATE date

);

**KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM**

create table KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM (

ITEM\_MERCHANDISE\_DEPARTMENT\_ID number(20,0),

DESCRIPTION varchar2(50),

ITEM\_MERCHANDISE\_DEPARTMENT\_NA varchar2(10),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date

);

**KPI\_ITEM\_MERCHANDISE\_COL\_DIM**

create table KPI\_ITEM\_MERCHANDISE\_COL\_DIM (

ITEM\_MERCHANDISE\_COLLECTION\_ID number(20,0),

DESCRIPTION varchar2(100),

ITEM\_MERCHANDISE\_COLLECTION\_NA varchar2(100),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date

);

**KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM**

create table KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM (

ITEM\_MERCHANDISE\_CLASS\_ID number(20,0),

DESCRIPTION varchar2(100),

ITEM\_MERCHANDISE\_CLASS\_NAME varchar2(100),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date

);

**KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM**

create table KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM (

ITEM\_MERCHANDISE\_SUBCLASS\_ID number(20,0),

DESCRIPTION varchar2(100),

ITEM\_MERCHANDISE\_SUBCLASS\_NAME varchar2(100),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date

);

**KPI\_DEPARTMENT\_DIM**

create table KPI\_DEPARTMENT\_DIM (

DATE\_LAST\_MODIFIED date,

DEPARTMENT\_ID number(20,0),

ISINACTIVE varchar2(100),

NAME varchar2(10),

WS\_DESCRIPTION varchar2(100),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date

);

**KPI\_ITEM\_DIM**

create table KPI\_ITEM\_DIM (

ITEM\_ID number(20,0),

SKU varchar2(100),

TYPE\_NAME varchar2(100),

SALESDESCRIPTION varchar2(100),

KPI\_DW\_SKEY number(20,0),

KPI\_DW\_INSERT\_DATE date,

KPI\_DW\_UPDATE\_DATE date,

KPI\_CLASS\_SKEY number(20,0),

WS\_MERCHANDISE\_DEPARTMENT\_SKEY number(20,0),

WS\_MERCHANDISE\_COLLECTION\_SKEY number(20,0),

WS\_MERCHANDISE\_CLASS\_SKEY number(20,0),

WS\_MERCHANDISE\_SUBCLASS\_SKEY number(20,0)

);

**2. CREATE SEQUENCE to populate KPI\_DW\_SKEY field in all Target tables.**

**Provide all the scripts**

1. CREATE SEQUENCE M1;

UPDATE KPI\_CHANNEL\_DIM SET KPI\_DW\_SKEY=M1.NEXTVAL;

ALTER TABLE KPI\_CHANNEL\_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_CHANNEL\_DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_CHANNEL\_DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

SELECT \* FROM KPI\_CHANNEL\_DIM;

1. CREATE SEQUENCE M2;

UPDATE KPI\_CLASS\_DIM SET KPI\_DW\_SKEY=M2.NEXTVAL;

ALTER TABLE KPI\_CLASS\_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_CLASS\_DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_CLASS\_DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M3;

UPDATE KPI\_DEPARTMENT\_DIM SET KPI\_DW\_SKEY=M3.NEXTVAL;

ALTER TABLE KPI\_DEPARTENT\_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_DEPARTMENT\_DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_DEPARTMENT\_DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M4;

UPDATE KPI\_ITEM\_DIM SET KPI\_DW\_SKEY=M4.NEXTVAL;

ALTER TABLE KPI\_ITEM\_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M5;

UPDATE KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM SET KPI\_DW\_SKEY=M5.NEXTVAL;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_CLASS \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_CLASS\_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_ MERCHANDISE\_CLASS\_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M6;

UPDATE KPI\_ITEM\_MERCHANDISE\_COL\_DIM SET KPI\_DW\_SKEY=M6.NEXTVAL;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_COL \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_COL\_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_ MERCHANDISE\_COL\_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M7;

UPDATE KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM SET KPI\_DW\_SKEY=M7.NEXTVAL;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_DEPAR \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_DEPAR\_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_ MERCHANDISE\_DEPAR\_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M8;

UPDATE KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM SET KPI\_DW\_SKEY=M7.NEXTVAL;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_SUBCL \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_SUBCL\_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_ MERCHANDISE\_SUBCL \_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

1. CREATE SEQUENCE M9;

UPDATE KPI\_LOCATION\_DIM SET KPI\_DW\_SKEY=M9.NEXTVAL;

ALTER TABLE KPI\_LOACTION \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_LOCATION \_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_LOCATION \_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

SELECT \* FROM KPI\_LOCATION\_DIM;

1. CREATE SEQUENCE M10;

UPDATE KPI\_TRANSACTION SET KPI\_DW\_SKEY=M10.NEXTVAL;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_CLASS \_DIM MODIFY KPI\_DW\_INSERT\_DATE DEFAULT SYSDATE;

ALTER TABLE KPI\_ITEM\_ MERCHANDISE\_CLASS\_ DIM MODIFY KPI\_DW\_UPDATE\_DATE DEFAULT SYSDATE;

UPDATE KPI\_ITEM\_ MERCHANDISE\_CLASS\_ DIM SET KPI\_DW\_INSERT\_DATE=SYSDATE,KPI\_DW\_UPDATE\_DATE=SYSDATE WHERE KPI\_DW\_SKEY IS NOT NULL;

**3. Create PRIMARY KEY on KPI\_DW\_SKEY**

1. ALTER TABLE KPI\_LOCATION\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_LOCATION\_DIM;

1. ALTER TABLE KPI\_TRANSACTION\_LINE\_FACT ADD PRIMARY

KEY(KPI\_DW\_SKEY);

DESC KPI\_TRANSACTION\_LINE\_FACT;

1. ALTER TABLE KPI\_CHANNEL\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_CHANNEL\_DIM;

4. ALTER TABLE KPI\_CLASS\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_CLASS\_DIM;

1. ALTER TABLE KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM ADD PRIMARY

KEY(KPI\_DW\_SKEY);

DESC KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM;

1. ALTER TABLE KPI\_ITEM\_MERCHANDISE\_COL\_DIM ADD PRIMARY

KEY(KPI\_DW\_SKEY);

DESC KPI\_ITEM\_MERCHANDISE\_COL\_DIM;

1. ALTER TABLE KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM ADD PRIMARY

KEY(KPI\_DW\_SKEY);

DESC KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM;

8. ALTER TABLE KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM;

9. ALTER TABLE KPI\_DEPARTMENT\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_DEPARTMENT\_DIM;

1. . ALTER TABLE KPI\_ITEM\_DIM ADD PRIMARY KEY(KPI\_DW\_SKEY);

DESC KPI\_ITEM\_DIM;

1. **Target Tables load**

**Load the Target Tables using Stage Tables.**

1. **Identify the sequence in which the Target Tables has to be loaded. Provide the reasons**

CONNECT MOUNISHA

ENTER PASSWORD:

CONNECTED.

1.GRANT SELECT KPI\_STG\_CHANNEL TO AMMU;

GRANT SUCCEEDED.

2.GRANT SELECT ON KPI\_STG\_CLASSES TO AMMU;

GRANT SUCCEEDED.

3.GRANT SELECT ON KPI\_STG\_DEPARTMENTS TO AMMU;

GRANT SUCCEEDED.

4. GRANT SELECT ON KPI\_STG\_ITEM\_MERCHANDISE\_CLASS TO AMMU;

GRANT SUCCEEDED.

5. GRANT SELECT ON KPI\_STG\_ITEM\_MERCHANDISE\_COLLE TO AMMU;

GRANT SUCCEEDED.

6. GRANT SELECT ON KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR TO AMMU;

GRANT SUCCEEDED.

7.GRANT SELECT ON KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL TO AMMU;

GRANT SUCCEEDED.

8. GRANT SELECT ON KPI\_STG\_ITEMS TO AMMU;

GRANT SUCCEEDED.

9. GRANT SELECT ON KPI\_STG\_TRANSACTIONS TO AMMU;

GRANT SUCCEEDED.

10. GRANT SELECT ON KPI\_STG\_TRANSACTIONS\_LINES TO AMMU;

GRANT SUCCEEDED.

11.GRANT SELECT ON KPI\_STG\_LOCATION TO AMMU;

GRANT SUCCEEDED.

WE HAVE TWO DATABASES THAT IS ‘STAGE TABLE’ AND ‘TARGET TABLE’. WE DON’T HAVE DATA SCRIPT FOR TARGET TABLE . SO, BY GIVING COMMAND (CONNECT SOURCE USER NAME). TO STAGE TABLE WE ARE INSERTING THE SCRIPT BY (CONNECT TARGET USER NAME).

**2.PROVIDE THE INSERT SCRIPTS USED TO PERFORM THE DATA LOAD**

**KPI\_CHANNEL\_DIM**

1. INSERT INTO KPI\_CHANNEL\_DIM(DATE\_CREATED,IS\_RECORD\_INACTIVE,LAST\_MODIFIED\_DATE,LIST\_ID,LIST\_ITEM\_NAME)

(SELECT \* FROM MOUNISHA.KPI\_STG\_CHANNEL);

SELECT \* FROM KPI\_CHANNEL\_DIM;

**KPI\_CLASS\_DIM**

1. INSERT INTO KPI\_CLASS\_DIM(CLASS\_ID,DATE\_LAST\_MODIFIED,FULL\_NAME,ISINACTIVE,NAME)(SELECT \* FROM MOUNISHA.KPI\_STG\_CLASSES);

SELECT \* FROM KPI\_CLASS\_DIM;

**KPI\_DEPARTMENT\_DIM**

ALTER TABLE KPI\_CLASS\_DIM MODIFY NAME VARCHAR2(50);

1. INSERT INTO KPI\_DEPARTMENT\_DIM(DATE\_LAST\_MODIFIED,DEPARTMENT\_ID,ISINACTIVE,NAME,WS\_DESCRIPTION)

(SELECT \* FROM MOUNISHA.KPI\_STG\_DEPARTMENTS);

SELECT \* FROM KPI\_DEPARTMENT\_DIM;

**KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM**

1. INSERT INTO KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM(ITEM\_MERCHANDISE\_CLASS\_ID,DESCRIPTION,ITEM\_MERCHANDISE\_CLASS\_NAME)

(SELECT \* FROM MOUNISHA.KPI\_STG\_ITEM\_MERCHANDISE\_CLASS);

SELECT \* FROM KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM;

**KPI\_ITEM\_MERCHANDISE\_COL\_DIM**

1. INSERT INTO KPI\_ITEM\_MERCHANDISE\_COL\_DIM(ITEM\_MERCHANDISE\_COLLECTION\_ID,DESCRIPTION,ITEM\_MERCHANDISE\_COLLECTION\_NA)

(SELECT \* FROM MOUNISHA.KPI\_STG\_ITEM\_MERCHANDISE\_COLLE);

SELECT \* FROM KPI\_ITEM\_MERCHANDISE\_COL\_DIM;

**KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM**

1. INSERT INTO KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM(ITEM\_MERCHANDISE\_DEPARTMENT\_ID,DESCRIPTION,ITEM\_MERCHANDISE\_DEPARTMENT\_NA)

(SELECT \* FROM MOUNISHA.KPI\_STG\_ITEM\_MERCHANDISE\_DEPAR);

SELECT \* FROM KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM;

**KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM**

1. INSERT INTO KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM(ITEM\_MERCHANDISE\_SUBCLASS\_ID,DESCRIPTION,ITEM\_MERCHANDISE\_SUBCLASS\_NAME)

(SELECT \* FROM MOUNISHA.KPI\_STG\_ITEM\_MERCHANDISE\_SUBCL);

SELECT \* FROM KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM;

**KPI\_LOCATION\_DIM**

1. INSERT INTO KPI\_LOCATION\_DIM(LOCATION\_ID,ADDRESS,CITY,COUNTRY,DATE\_LAST\_MODIFIED,FULL\_NAME,ISINACTIVE,NAME)

(SELECT \* FROM MOUNISHA.KPI\_STG\_LOCATIONS);

SELECT \* FROM KPI\_LOCATION\_DIM;

**KPI\_TRANSACTION\_LINE\_FACT**

1. INSERT INTO KPI\_TRANSACTION\_LINE\_FACT(TRANSACTION\_ID,TRANSACTION\_LINE\_ID,TRANID,TRANSACTION\_TYPE,TRANDATE,KPI\_CHANNEL\_SKEY,

KPI\_LOCATION\_SKEY,KPI\_DEPARTMENT\_SKEY,KPI\_ITEM\_SKEY,AMOUNT,COST,UNITS)

(SELECT A.TRANSACTION\_ID,B.TRANSACTION\_LINE\_ID,A.TRANID,A.TRANSACTION\_TYPE,A.TRANDATE,

A.CHANNEL\_ID,

B.LOCATION\_ID,B.DEPARTMENT\_ID,B.ITEM\_ID,B.AMOUNT,B.COST,B.UNITS

FROM MOUNISHA.KPI\_STG\_TRANSACTIONS A,MOUNISHA.KPI\_STG\_TRANSACTIONS\_LINES B WHERE B.TRANSACTION\_ID = A.TRANSACTION\_ID);

DROP TABLE KPI\_TRANSACTION\_LINE\_FACT;

SELECT \* FROM KPI\_TRANSACTION\_LINE\_FACT;

**KPI\_ITEM\_DIM**

1. INSERT INTO KPI\_ITEM\_DIM(ITEM\_ID,SKU,TYPE\_NAME,SALESDESCRIPTION,KPI\_CLASS\_SKEY,WS\_MERCHANDISE\_DEPARTMENT\_SKEY,

WS\_MERCHANDISE\_COLLECTION\_SKEY,WS\_MERCHANDISE\_CLASS\_SKEY,WS\_MERCHANDISE\_SUBCLASS\_SKEY)

(SELECT \* FROM MOUNISHA.KPI\_STG\_ITEMS);

SELECT \* FROM KPI\_ITEM\_DIM;

**10.CREATE BRAND\_NAME field in KPI\_ITEM\_DIM and populate values from NAME field present in KPI\_CLASS\_DIM**

**1. Provide the script to add the new column**

ALTER TABLE KPI\_ITEM\_DIM ADD BRAND\_NAME VARCHAR2(100);

**2.Provide the UPDATE script to populate BRAND\_NAME field**

UPDATE KPI\_ITEM\_DIM M SET M.BRAND\_NAME=(SELECT R.NAME

FROM KPI\_CLASS\_DIM R WHERE R.CLASS\_ID=M.KPI\_CLASS\_SKEY);

SELECT \* FROM KPI\_ITEM\_DIM;

**11.** **CREATE KPI\_ITEM\_DIM\_FLAT table STRUCTURE ONLY with following fields using SELECT statement joining the required Target tables**

**1. Provide the CREATE script**

CREATE TABLE ITEM\_DIM\_FLAT(SKU VARCHAR(100), ITEM\_TYPE VARCHAR(50), BRAND VARCHAR(50), MERCHANDISE\_DEPARTMENT VARCHAR(50),

MERCHANDISE\_DEPT\_NAME VARCHAR(50), MERCHANDISE\_COLLECTION VARCHAR(50), MERCHANDISE\_COLLECTION\_NAME VARCHAR(50), MERCHANDISE\_CLASS VARCHAR(50),

MERCHANDISE\_CLASS\_NAME VARCHAR(5), MERCHANDISE\_SUBCLASS VARCHAR(50), MERCHANDISE\_SUBCLASS\_NAME VARCHAR(50), KPI\_ITEM\_SKEY NUMBER);

ITEM\_MERCHANDISE\_CLASS.DESCRIPTION,ITEM\_MERCHANDISE\_CLASS.ITEM\_MERCHANDISE\_CLASS\_NAME,

ITEM\_MERCHANDISE\_SUBCLASS.DESCRIPTION,ITEM\_MERCHANDISE\_SUBCLASS.ITEM\_MERCHANDISE\_SUBCLASS\_NAME,ITEMS.KPI\_DW\_SKEY

from ITEMS,ITEM\_MERCHANDISE\_DEPARTMENT,ITEM\_MERCHANDISE\_COLLECTION,ITEM\_MERCHANDISE\_CLASS,

ITEM\_MERCHANDISE\_SUBCLASS);

**2.Provide the BULK INSERT script to load this table**

INSERT INTO KPI\_ITEM\_DIM\_FLAT (SKU VARCHAR2(100),ITEM\_TYPE VARCHAR(100),BRAND VARCHAR2(100),MERCHANDISE\_DEPARTMENT VARCHAR2(120),

MERCHANDISE\_DEPT\_NAME VARCHAR2(100),MERCHANDISE\_COLLECTION VARCHAR2(100),ERCHANDISE\_COLLECTION\_NAME VARCHAR2(100),

MERCHANDISE\_CLASS VARCHAR2(100),MERCHANDISE\_CLASS\_NAME VARCHAR2(100),MERCHANDISE\_SUBCLASS VARCHAR2(100),

MERCHANDISE\_SUBCLASS\_NAME VARCHAR2(100),KPI\_ITEM\_SKEY NUMBER)

SELECT ITEMS.NAME,ITEMS.TYPE\_NAME,ITEMS.BRAND\_NAME,ITEM\_MERCHANDISE\_DEPARTMENT.DESCRIPTION,ITEM\_MERCHANDISE\_DEPARTMENT.ITEM\_MERCHANDISE\_DEPARTMENT\_NA,

ITEM\_MERCHANDISE\_COLLECTION.DESCRIPTION,ITEM\_MERCHANDISE\_COLLECTION.ITEM\_MERCHANDISE\_COLLECTION\_NA,

ITEM\_MERCHANDISE\_CLASS.DESCRIPTION,ITEM\_MERCHANDISE\_CLASS.ITEM\_MERCHANDISE\_CLASS\_NAME,

ITEM\_MERCHANDISE\_SUBCLASS.DESCRIPTION,ITEM\_MERCHANDISE\_SUBCLASS.ITEM\_MERCHANDISE\_SUBCLASS\_NAME,ITEMS.KPI\_DW\_SKEY

FROM ITEMS,ITEM\_MERCHANDISE\_DEPARTMENT,ITEM\_MERCHANDISE\_COLLECTION,ITEM\_MERCHANDISE\_CLASS,

ITEM\_MERCHANDISE\_SUBCLASS);

**3.Create a CURSOR to perform ROW by ROW inserts into this table**

CREATE TABLE ITEM\_DIM\_FLAT(SKU VARCHAR(100), ITEM\_TYPE VARCHAR(50), BRAND VARCHAR(50), MERCHANDISE\_DEPARTMENT VARCHAR(50),

MERCHANDISE\_DEPT\_NAME VARCHAR(50), MERCHANDISE\_COLLECTION VARCHAR(50), MERCHANDISE\_COLLECTION\_NAME VARCHAR(50), MERCHANDISE\_CLASS VARCHAR(50),

MERCHANDISE\_CLASS\_NAME VARCHAR(5), MERCHANDISE\_SUBCLASS VARCHAR(50), MERCHANDISE\_SUBCLASS\_NAME VARCHAR(50), KPI\_ITEM\_SKEY NUMBER);

DECLARE

CURSOR C1 IS SELECT I.SKU, I.TYPE\_NAME, I.BRAND\_NAME, I.KPI\_DW\_SKEY, D.DESCRIPTION, D.ITEM\_MERCHANDISE\_DEPARTMENT\_NA,

CL.DESCRIPTION, CL.ITEM\_MERCHANDISE\_COLLECTION\_NA, C.DESCRIPTION, C.ITEM\_MERCHANDISE\_CLASS\_NAME,

S.DESCRIPTION, S.ITEM\_MERCHANDISE\_SUBCLASS\_NAME FROM KPI\_ITEM\_DIM I JOIN KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM

D ON I.KPI\_DW\_SKEY=D.KPI\_DW\_SKEY JOIN KPI\_ITEM\_MERCHANDISE\_COL\_DIM CL ON D.KPI\_DW\_SKEY=CL.KPI\_DW\_SKEY JOIN KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM

C ON CL.KPI\_DW\_SKEY=C.KPI\_DW\_SKEY JOIN KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM S ON C.KPI\_DW\_SKEY=S.KPI\_DW\_SKEY;

BEGIN

FOR CUR IN C1 LOOP

INSERT INTO ITEM\_DIM\_FLAT VALUES(C1.SKU, C1.ITEM\_TYPE, C1.BRAND,C1.MERCHANDISE\_DEPARTMENT,C1.MERCHANDISE\_DEPT\_NAME,C1.MERCHANDISE\_COLLECTION,

C1.MERCHANDISE\_COLLECTION\_NAME,C1.MERCHANDISE\_CLASS,C1.MERCHANDISE\_CLASS\_NAME,C1.MERCHANDISE\_SUBCLASS,C1.MERCHANDISE\_SUBCLASS\_NAME,C1.KPI\_ITEM\_SKEY NUMBER)

(SELECT I.SKU,I.TYPE\_NAME, I.BRAND\_NAME,I.KPI\_DW\_SKEY,D.DESCRIPTION,D.ITEM\_MERCHANDISE\_DEPARTMENT\_NA,CL.DESCRIPTION,CL.ITEM\_MERCHANDISE\_COLLECTION\_NA,

C.DESCRIPTION,C.ITEM\_MERCHANDISE\_CLASS\_NAME,S.DESCRIPTION,S.ITEM\_MERCHANDISE\_SUBCLASS\_NAME FROM KPI\_ITEM\_DIM I,KPI\_ITEM\_MERCHANDISE\_DEPAR\_DIM

D,KPI\_ITEM\_MERCHANDISE\_COL\_DIM CL,KPI\_ITEM\_MERCHANDISE\_CLASS\_DIM C,KPI\_ITEM\_MERCHANDISE\_SUBCL\_DIM S);

END LOOP;

CLOSE C1;

END;

**12.If TRANSACTION\_TYPE is " Sales Order " then its Demand, if TRANSACTION\_TYPE is " Invoice" then its Sales**

**1. Find the Top 5 and Bottom 5 Items based on the Demand Amount values in a single query**

SELECT TRANSACTION\_TYPE, AMOUNT FROM (SELECT TRANSACTION\_TYPE, AMOUNT, ROW\_NUMBER() OVER (PARTITION BY TRANSACTION\_TYPE ORDER BY AMOUNT DESC) TOP\_VAL, ROW\_NUMBER() OVER (PARTITION BY TRANSACTION\_TYPE ORDER BY AMOUNT) BOTTOM\_VAL) WHERE TOP\_VAL<=5 OR BOTTOM\_VAL<=5;

**2.Which Department has the highest Demand and Sales Amount**

SELECT D.NAME, MAX(T.AMOUNT) FROM DEPARTMENT\_DIM D JOIN TRANSACTION\_LINE\_FACT T ON D.KPI\_DW\_SKEY=T.KPI\_DW\_SKEY GROUP BY T.TRANSACTION\_TYPE, D.NAME HAVING TRANSACTION\_TYPE='SALES ORDER' OR TRANSACTION\_TYPE='INVOICES';

**4.Populate top 10 LOCATIONS based on number of Demand Transactions using Analytical functions**

SELECT L.CITY FROM LOCATION\_DIM L JOIN TRANSACTION\_LINE\_FACT F ON F.KPI\_DW\_SKEY=L.KPI\_DW\_SKEY WHERE TRANSACTION\_TYPE='SALES ORDER' ORDER BY TRANSACTION\_TYPE;

**5.Find Demand Amount, Demand Units, Sales Amount and Sales Units for each Channel**

SELECT TRANSACTION\_TYPE, AMOUNT, UNITS FROM TRANSACTION\_LINE\_FACT GROUP BY TRANSACTION\_TYPE, AMOUNT, UNITS ORDER BY 1;

**6.Write a VIEW using target tables with following fields**

CREATE FORCE VIEW TARGET\_VIEW AS SELECT T.TRANSACTION\_ID, T.TRANSACTION\_LINE\_ID, T.TRANDATE, T.TRANSACTION\_TYPE,

I.TYPE\_NAME,

L.CITY,

D.NAME,

CD.LIST\_ITEM\_NAME,

ID.ITEM\_MERCH\_DEPARTMENT\_NA,

ID.DESCRIPTION,

IC.ITEM\_MERCH\_COLLECTION\_NA,

IC.DESCRIPTION,

C.ITEM\_MERCH\_CLASS\_NAME,

C.DESCRIPTION,

S.ITEM\_MERCH\_SUBCLASS\_NAME,

S.DESCRIPTION,

T.AMOUNT,

T.UNITS

FROM KPI\_TRANSACTION\_LINE\_FACT T JOIN KPI\_ITEM\_DIM I ON T.KPI\_DW\_SKEY = I.KPI\_DW\_SKEY JOIN KPI\_LOCATION\_DIM L ON I.KPI\_DW\_SKEY = L.KPI\_DW\_SKEY

JOIN KPI\_DEPARTMENT\_DIM D ON L.KPI\_DW\_SKEY = D.KPI\_DW\_SKEY

JOIN KPI\_ CHANNEL\_DIM CD ON D.KPI\_DW\_SKEY = CD.KPI\_DW\_SKEY

JOIN KPI\_ ITEM\_MERCH\_DEPARTMENT\_DIM ID ON CD.KPI\_DW\_SKEY = ID.KPI\_DW\_SKEY

JOIN KPI\_ITEM\_MERCH\_COLLECTION\_DIM IC ON ID.KPI\_DW\_SKEY = IC.KPI\_DW\_SKEY

JOIN KPI\_ITEM\_MERCH\_CLASS\_DIM C ON IC.KPI\_DW\_SKEY = C.KPI\_DW\_SKEY

JOIN KPI\_ITEM\_MERCH\_SUBCLASS\_DIM S ON C.KPI\_DW\_SKEY = S.KPI\_DW\_SKEY;