Understand the commonly used Data Models to build DWH

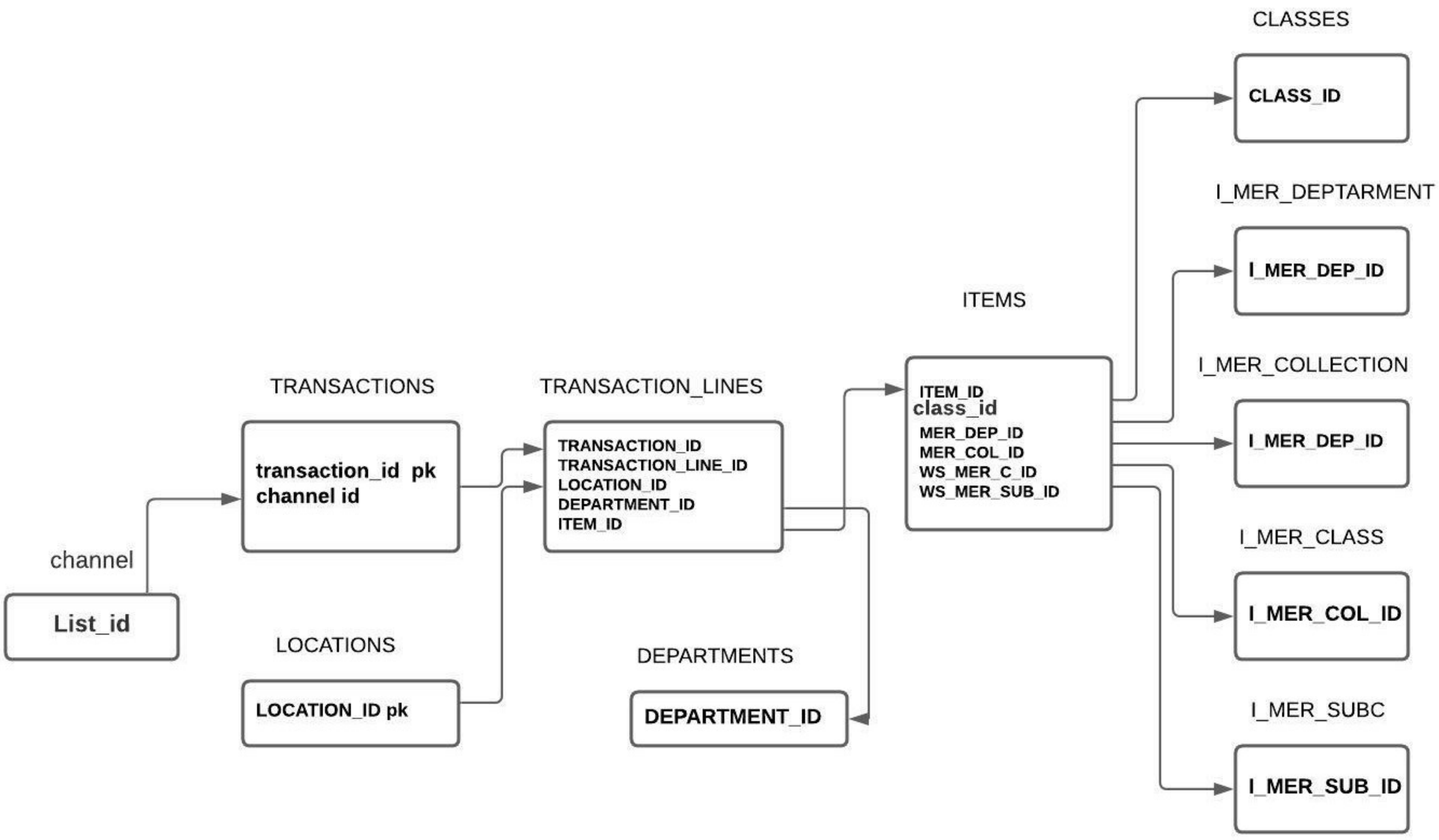
1. Identify the given data model and briefly explain about it.

Based on the given data model is SNOFLAKE SCHEMA MODEL

Description:

Snowflake schema contains one flat table and no of dimension tables,
It is a variant of star schema. Here the fact table only the centralized table and connected
to all the dimension tables and also dimension tables also connected to another dimension
tables based on having several levels of relationship. The child tables having multiple parents tables,
In the snowflake schema, all the dimension tables are normalized.

Example : the given data model having one fact table and remaining are the dimension table. See the below blue print of snowflake schema model.



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

There are few steps to set the dependencies during stage tables and target tables load.

- Take any table source table data example: kpi_stg_channel.
- Analyse the Business Keys if they meet Primary key conditions for all Stage tables
  Provide the SQLs to execute to ensure Primary Key conditions on business key.
- then, Delete the duplicate records if exists and maintain unique record by using Analytical function
- Create Primary Key on Stage tables.
- And mention foreign keys on stage tables
- These all are filtering the redundancy data in ETL process.
- Then load into target tables.

3.What are common issues with this model

1. The main issue in this model has having several levels of relationship produces more complexity of join conditions. Snowflake is not recommended for dimension tables because it hampers the understand ability and performance of the dimension

1. model as more tables has required to join to satisfy the conditions.

Also some errors will get on snowflake model like..

- ○ Cancelling of PySpark paragraphs for Snowflake query in Notebooks does not cancel the corresponding Snowflake query in the Snowflake UI.
- ○ Cancelling of Scala paragraphs for Snowflake query in Notebooks does not cancel the query.
- ○ Query with column names containing whitespace or other non-standard characters fails.

- DDL and DML queries are not supported by the Qubole Dataframe API for Apache Spark.
- Snowflake does not support the parallelism functionality. As a result, parallelism does not work when importing data from the Snowflake data store either by using the command composer on the **Analyse** page or by using the **DB Import** command.

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

YES, it is possible to convert snowflake schema model into star schema model my using DENORMALISATION.

- Example the the given data we have one fact table and normalized dimension tables.
- Here the some dimension tables are connected with another dimension tables that's why we call it as snowflake schema model
- Same as in star schema we should have one fact table and remaining all dimension tables should be connected with fact table.
- By using using DENORMALISATION here we can merge some dimension tables based on relationship by using join query and make a realtion to fact table.

CREATING STAGE TABLES

2.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)
);
        DESC 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
);
DESC 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
);
DESC 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)
);
DESC 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)
);
DESC 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)

);

DESC 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

);

DESC KPI_STG_TRANSACTIONS_LINES;
```

KPI_STG_ ITEM_MERCHANDISE_DEPARTMENT

```
CREATE TABLE
KPI_STG_ITEM_MERCHANDISE_DEPARTMENT

( ITEM_MERCHANDISE_DEPARTMENT_ID
NUMBER,

DESCRIPTION VARCHAR2(20),

 ITEM_MERCHANDISE_DEPARTMENT_NA
VARCHAR2(10)

);

DESC KPI_STG_ITEM_MERCHANDISE_DEPAR;
```

KPI_STG_ ITEM_MERCHANDISE_ COLLECTION

```
CREATE TABLE
KPI_STG_ITEM_MERCHANDISE_COLLECTION(

   ITEM_MERCHANDISE_COLLECTION_ID
NUMBER,

   DESCRIPTION VARCHAR2(50),

   ITEM_MERCHANDISE_COLLECTION_NA
VARCHAR2(50)

);

DESC KPI_STG_ITEM_MERCHANDISE_ COLLE;
```

KPI_STG_ ITEM_MERCHANDISE_SUBCLASS

```
CREATE TABLE
KPI_STG_ITEM_MERCHANDISE_SUBCLASS (

   ITEM_MERCHANDISE_SUBCLASS_ID NUMBER,

   DESCRIPTION VARCHAR2(50),

   ITEM_MERCHANDISE_SUBCLASS_NAME
VARCHAR2(10)

);

DESC 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)

);

DESC KPI_STG_ITEM_MERCHANDISE_CLASS;
```

3.Load the data in the tables 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');
SELECT  *  FROM KPI_STG_CHANNEL;
```

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);
SELECT  *  FROM KPI_STG_TRANSACTIONS;
```

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 – GLOBAL PURCHASES');
SELECT  *  FROM KPI_STG_ DEPARTMENTS;
```

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);

SELECT  *  FROM KPI_STG_ ITEMS;
```

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 );

SELECT  *  FROM KPI_STG_ TRANSACTIONS_LINES  ;
```

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');

SELECT  *  FROM KPI_STG_ ITEM_MERCHANDISE_COLLECTION ;
```

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);
SELECT  *  FROM KPI_STG_ ITEM_MERCHANDISE_ CLASS ;
```

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);
SELECT  *  FROM KPI_STG_ ITEM_MERCHANDISE_SUBCLASS ;
```

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');
SELECT  *  FROM KPI_STG_ CLASSES;
```

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);

SELECT  *  FROM KPI_STG_ ITEM_MERCHANDISE_ DEPARTMENT;
```

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 NSW2022  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');
```

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

```
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;

→>>>>>>>5

SELECT COUNT(DISTINCT WS_DESCRIPTION) FROM KPI_STG_DEPARTMENTS WHERE WS_DESCRIPTION IS NOT NULL;

→>>>>>>>100
```

KPI_STG_ITEM_MERCHANDISE_CLASS 83 ROWS

```
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 ROWS

```
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 ROWS

```
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 ROWS

```
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 ROWS

```
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 ROWS

```
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
Provide the DELETE scripts using Analytical function

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);

DELETE FROM KPI_STG_ITEM_MERCHANDISE_DEPAR WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_ITEM_MERCHANDISE_DEPAR GROUP BY ITEM_MERCHANDISE_DEPARTMENT_ID);

DELETE FROM KPI_STG_TRANSACTIONS_LINES WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_TRANSACTIONS_LINES GROUP BY TRANSACTION_ID,TRANSACTION_LINE_ID);

DELETE FROM KPI_STG_CHANNEL WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_CHANNEL GROUP BY LIST_ID) ;

DELETE FROM KPI_STG_DEPARTMENTS WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_DEPARTMENTS GROUP BY DEPARTMENT_ID) ;

DELETE FROM KPI_STG_ITEM_MERCHANDISE_CLASS WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_ITEM_MERCHANDISE_CLASS GROUP BY ITEM_MERCHANDISE_CLASS_ID);

DELETE FROM KPI_STG_ITEM_MERCHANDISE_COLLE WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_ITEM_MERCHANDISE_COLLE GROUP BY ITEM_MERCHANDISE_COLLECTION_ID);

DELETE FROM KPI_STG_ITEM_MERCHANDISE_SUBCL WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_ITEM_MERCHANDISE_SUBCL GROUP BY ITEM_MERCHANDISE_SUBCLASS_ID);

DELETE FROM KPI_STG_LOCATIONS WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_LOCATIONS GROUP BY LOCATION_ID);

DELETE FROM KPI_STG_TRANSACTIONS WHERE ROWID NOT IN (SELECT MIN(ROWID) FROM KPI_STG_TRANSACTIONS GROUP BY TRANSACTION_ID);

6.Create Primary Key on Stage tables
Provide the scripts used to create Primary Key

```
ALTER TABLE KPI_STG_CHANNEL ADD PRIMARY KEY(LIST_ID);
ALTER TABLE KPI_STG_CLASSES ADD PRIMARY KEY(CLASS_ID);
ALTER TABLE KPI_STG_DEPARTMENTS ADD PRIMARY KEY(DEPARTMENT_ID);
ALTER TABLE KPI_STG_ITEM_MERCHANDISE_CLASS ADD PRIMARY KEY(ITEM_MERCHANDISE_CLASS_ID);
ALTER TABLE KPI_STG_ITEM_MERCHANDISE_COLLE ADD PRIMARY KEY(ITEM_MERCHANDISE_COLLECTION_ID);
ALTER TABLE KPI_STG_ITEM_MERCHANDISE_DEPAR ADD PRIMARY KEY(ITEM_MERCHANDISE_DEPARTMENT_ID);
ALTER TABLE KPI_STG_ITEM_MERCHANDISE_SUBCL ADD PRIMARY KEY(ITEM_MERCHANDISE_SUBCLASS_ID);
ALTER TABLE KPI_STG_ITEMS ADD PRIMARY KEY(ITEM_ID);
ALTER TABLE KPI_STG_LOCATIONS ADD PRIMARY KEY(LOCATION_ID);
ALTER TABLE KPI_STG_TRANSACTIONS ADD PRIMARY KEY(TRANSACTION_ID);
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

```
ALTER TABLE KPI_STG_ITEMS ADD CONSTRAINT FK_KPI_STG_ITEMS FOREIGN KEY(CLASS_ID) REFERENCES KPI_STG_CLASSES(CLASS_ID);

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);

ALTER TABLE KPI_STG_ITEMS ADD CONSTRAINT FK_K_STG_ITEMS FOREIGN KEY(WS_MERCHANDISE_COLLECTION_ID) REFERENCES
KPI_STG_ITEM_MERCHANDISE_COLLE(ITEM_MERCHANDISE_COLLECTION_ID);

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);

ALTER TABLE KPI_STG_ITEMS ADD CONSTRAINT FK_KPI_S_ITEMS FOREIGN KEY(WS_MERCHANDISE_SUBCLASS_ID) REFERENCES
KPI_STG_ITEM_MERCHANDISE_SUBCL(ITEM_MERCHANDISE_SUBCLASS_ID);

ALTER TABLE KPI_STG_TRANSACTIONS_LINES ADD CONSTRAINT FK_KPI_STG_TRANSACTIONS_LINES

FOREIGN KEY(LOCATION_ID) REFERENCES KPI_STG_LOCATIONS(LOCATION_ID);

ALTER TABLE KPI_STG_TRANSACTIONS_LINES ADD CONSTRAINT FK_KPI_TRANSACTIONS_LINES

FOREIGN KEY(DEPARTMENT_ID) REFERENCES KPI_STG_DEPARTMENTS(DEPARTMENT_ID);

ALTER TABLE KPI_STG_TRANSACTIONS_LINES ADD CONSTRAINT FK_STG_TRANSACTIONS_LINES

FOREIGN KEY(ITEM_ID) REFERENCES KPI_STG_ITEMS(ITEM_ID);

ALTER TABLE KPI_STG_TRANSACTIONS ADD CONSTRAINT FK_KPI_STG_TRANSACTIONS

FOREIGN KEY(CHANNEL_ID) REFERENCES KPI_STG_CHANNEL(LIST_ID);
```

TARGET MODEL

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_SKEY NUMBER(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_DEPTARMEN_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_COLLECTION_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_SUBCLASS_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

KPI_LOCATION_DIM

```
create sequence t1;

update KPI_LOCATION_DIM set KPI_DW_SKEY=t1.nextval;

alter table KPI_LOCATION_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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null
```

KPI_TRANSACTION_LINE_FACT

```
create sequence t2;

update KPI_TRANSACTION_LINE_FACT set KPI_DW_SKEY=t2.nextval;


alter table KPI_TRANSACTION_LINE_FACT modify KPI_DW_INSERT_DATE default sysdate;
alter table KPI_TRANSACTION_LINE_FACT modify KPI_DW_UPDATE_DATE default sysdate;

UPDATE KPI_TRANSACTION_LINE_FACT
SET kpi_dw_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null
```

KPI_CHANNEL_DIM

```
CREATE SEQUENCE CHANNEL;

UPDATE KPI_CHANNEL_DIM SET KPI_DW_SKEY=CHANNEL.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null
```

KPI_ITEM_MERCHANDISE_DEPAR_DIM

```
create sequence t4;
update KPI_ITEM_MERCHANDISE_DEPAR_DIM set KPI_DW_SKEY=t4.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_ITEM_MERCHANDISE_COL_DIM

```
create sequence t5;
update KPI_ITEM_MERCHANDISE_COL_DIM set KPI_DW_SKEY=t5.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_ITEM_MERCHANDISE_CLASS_DIM

```
create sequence t6;

update KPI_ITEM_MERCHANDISE_CLASS_DIM set KPI_DW_SKEY=t6.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_ITEM_MERCHANDISE_SUBCL_DIM

```
create sequence t7;
update KPI_ITEM_MERCHANDISE_SUBCL_DIM set KPI_DW_SKEY=t7.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_DEPARTMENT_DIM

```
create sequence t8;
update KPI_DEPARTMENT_DIM set KPI_DW_SKEY=t8.nextval;

alter table KPI_DEPARTMENT_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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_ITEM_DIM

```
create sequence t11;
update KPI_ITEM_DIM set KPI_DW_SKEY=t11.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

KPI_CLASS_DIM

```
create sequence t10;

update KPI_CLASS_DIM set KPI_DW_SKEY=t10.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_update_date=sysdate,kpi_dw_insert_date=sysdate
WHERE  kpi_dw_skey is not null;
```

3. Create PRIMARY KEY on KPI_DW_SKEY

```
ALTER TABLE KPI_LOCATION_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_LOCATION_DIM;


ALTER TABLE KPI_TRANSACTION_LINE_FACT ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_TRANSACTION_LINE_FACT;


ALTER TABLE KPI_CHANNEL_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_CHANNEL_DIM;


ALTER TABLE KPI_CLASS_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_CLASS_DIM;


ALTER TABLE KPI_ITEM_MERCHANDISE_DEPAR_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_ITEM_MERCHANDISE_DEPAR_DIM;


ALTER TABLE KPI_ITEM_MERCHANDISE_COL_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_ITEM_MERCHANDISE_COL_DIM;


ALTER TABLE KPI_ITEM_MERCHANDISE_CLASS_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_ITEM_MERCHANDISE_CLASS_DIM;


ALTER TABLE KPI_ITEM_MERCHANDISE_SUBCL_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_ITEM_MERCHANDISE_SUBCL_DIM;


ALTER TABLE KPI_DEPARTMENT_DIM ADD PRIMARY KEY(KPI_DW_SKEY);

DESC KPI_DEPARTMENT_DIM;


ALTER TABLE KPI_ITEM_DIM ADD PRIMARY KEY(KPI_DW_SKEY);
```

9. 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

HERE WE HAVE TWO DATABASES LIKE ABBLE AND ANIF, ABBLE IS THE SOURCE DATABASE SO WE NEED TO CONNECT THE SOURCE DATABASE AND GIVE A GRANT TO TARGET DATABASE ANIF

```
CONNECT ABBLE
ENTER PASSWORD:
CONNECTED.
```

```
•	GRANT SELECT KPI_STG_CHANNEL TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_CLASSES TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_DEPARTMENTS TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_ITEM_MERCHANDISE_CLASS TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_ITEM_MERCHANDISE_COLLE TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_ITEM_MERCHANDISE_DEPAR TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_ITEM_MERCHANDISE_SUBCL TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_ITEMS TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_TRANSACTIONS TO ANIF;
GRANT SUCCEEDED.
•	GRANT SELECT ON KPI_STG_TRANSACTIONS_LINES TO ANIF;
GRANT SUCCEEDED.
•	GRANT  SELECT ON KPI_STG_LOCATION TO ANIF;
GRANT SUCCEEDED.
```

2. Provide the INSERT scripts used to perform the data load

AFETR SUCCESFULLY COMPLETION OF GRANT THEN WE NEED TO CONNECT THE TARGET DATABASE ANIF

```
CONNECT ANIF
ENTER PASSWORD:
CONNECTED.
```

```
INSERT INTO KPI_CHANNEL_DIM(DATE_CREATED,IS_RECORD_INACTIVE,
LAST_MODIFIED_DATE,LIST_ID,LIST_ITEM_NAME)(SELECT * FROM  ABBLE.KPI_STG_CHANNEL);
```

```
INSERT INTO KPI_CLASS_DIM(CLASS_ID,DATE_LAST_MODIFIED,FULL_NAME,
ISINACTIVE,NAME)(SELECT * FROM ABBLE.KPI_STG_CLASSES);
```

```
INSERT INTO KPI_DEPARTMENT_DIM(DATE_LAST_MODIFIED,DEPARTMENT_ID,ISINACTIVE,
NAME,WS_DESCRIPTION)(SELECT * FROM ABBLE.KPI_STG_DEPARTMENTS);
```

```
INSERT INTO KPI_ITEM_MERCHANDISE_CLASS_DIM(ITEM_MERCHANDISE_CLASS_ID,
DESCRIPTION,ITEM_MERCHANDISE_CLASS_NAME)(SELECT * FROM ABBLE.KPI_STG_ITEM_MERCHANDISE_CLASS);
```

```
INSERT INTO KPI_ITEM_MERCHANDISE_COL_DIM(ITEM_MERCHANDISE_COLLECTION_ID,
DESCRIPTION,ITEM_MERCHANDISE_COLLECTION_NA)(SELECT * FROM ABBLE.KPI_STG_ITEM_MERCHANDISE_COLLE);
```

```
INSERT INTO KPI_ITEM_MERCHANDISE_DEPAR_DIM(ITEM_MERCHANDISE_DEPARTMENT_ID,

DESCRIPTION,ITEM_MERCHANDISE_DEPARTMENT_NA)(SELECT * FROM ABBLE.KPI_STG_ITEM_MERCHANDISE_DEPAR);


INSERT INTO KPI_ITEM_MERCHANDISE_SUBCL_DIM(ITEM_MERCHANDISE_SUBCLASS_ID,

DESCRIPTION,ITEM_MERCHANDISE_SUBCLASS_NAME)(SELECT * FROM ABBLE.KPI_STG_ITEM_MERCHANDISE_SUBCL);


INSERT INTO KPI_LOCATION_DIM(LOCATION_ID,ADDRESS,CITY,COUNTRY,DATE_LAST_MODIFIED,

FULL_NAME,ISINACTIVE,NAME)(SELECT * FROM ABBLE.KPI_STG_LOCATIONS);


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 ABBLE.KPI_STG_ITEMS);


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)(SELECTA.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 ABBLE.KPI_STG_TRANSACTIONS A, ABBLE.KPI_STG_TRANSACTIONS_LINES B WHERE B.TRANSACTION_ID=A.TRANSACTION_ID);
```

```
SELECT * FROM KPI_CHANNEL_DIM;

SELECT * FROM KPI_CLASS_DIM;

SELECT * FROM KPI_DEPARTMENT_DIM;

SELECT * FROM KPI_ITEM_MERCHANDISE_CLASS_DIM;

SELECT * FROM KPI_ITEM_MERCHANDISE_COL_DIM;

SELECT * FROM KPI_ITEM_MERCHANDISE_DEPAR_DIM;

SELECT * FROM KPI_ITEM_MERCHANDISE_SUBCL_DIM;

SELECT * FROM KPI_LOCATION_DIM;

SELECT * FROM KPI_ITEM_DIM;

SELECT * FROM KPI_TRANSACTION_LINE_FACT;
```

9. 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 a set a.brand_name=(select b.name from kpi_class_dim b where b.class_id=a.kpi_class_skey);
```

10. CREATE **KPI_ITEM_DIM_FLAT** table **STRUCTURE ONLY** with following fields using SELECT statement joining the required Target tables

1. ITEMS.NAME AS SKU
2. ITEMS.TYPE_NAME AS ITEM_TYPE
3. ITEMS.BRAND_NAME AS BRAND

4. ITEM_MERCHANDISE_DEPARTMENT.DESCRIPTION AS MERCHANDISE_DEPARTMENT
5. ITEM_MERCHANDISE_DEPARTMENT.ITEM_MERCHANDISE_DEPARTMENT_NA AS MERCHANDISE_DEPT_NAME
6. ITEM_MERCHANDISE_COLLECTION.DESCRIPTION AS MERCHANDISE_COLLECTION
7.ITEM_MERCHANDISE_COLLECTION.ITEM_MERCHANDISE_COLLECTION_NA MERCHANDISE_COLLECTION_NAME
8. ITEM_MERCHANDISE_CLASS.DESCRIPTION AS MERCHANDISE_CLASS
9. ITEM_MERCHANDISE_CLASS.ITEM_MERCHANDISE_CLASS_NAME AS MERCHANDISE_CLASS_NAME
10. ITEM_MERCHANDISE_SUBCLASS.DESCRIPTION AS MERCHANDISE_SUBCLASS
11. ITEM_MERCHANDISE_SUBCLASS.ITEM_MERCHANDISE_SUBCLASS_NAME AS MERCHANDISE_SUBCLASS_NAME
12. ITEMS.KPI_DW_SKEY as KPI_ITEM_SKEY

1. Provide the CREATE script

```
create TABLE 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);
```

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

```
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 Answer the requested questions

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

- TRANSACTION_ID
- TRANSACTION_LINE_ID
- TRANDATE
- TRANSACTION_TYPE
- ITEM_NAME
- ITEM_TYPE_NAME
- LOCATION_NAME
- DEPARTMENT_NAME
- CHANNEL_NAME
- MERCHANDISE_DEPARTMENT_NAME
- MERCHANDISE_DEPARTMENT_DESCRIPTION
- MERCHANDISE_COLLECTION_NAME
- MERCHANDISE_COLLECTION_DESCRIPTION
- MERCHANDISE_CLASS_NAME
- MERCHANDISE_CLASS_DESCRIPTION
- MERCHANDISE_SUBCLASS_NAME
- MERCHANDISE_SUBCLASS_DESCRIPTION
- DEMAND_AMOUNT
- DEMAND_UNITS
- DEMAND_PROFIT
- DEMAND_PROFIT%
- SALES_AMOUNT
- SALES_UNITS
- SALES_PROFIT
- SALES_PROFIT%

```
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
 transaction_line_fact t join item_dim i on t.kpi_dw_skey = i.kpi_dw_skey
      join location_dim l on i.kpi_dw_skey = l.kpi_dw_skey
      join department_dim d on l.kpi_dw_skey = d.kpi_dw_skey
      join channel_dim cd on d.kpi_dw_skey = cd.kpi_dw_skey
      join item_merch_department_dim id on cd.kpi_dw_skey = id.kpi_dw_skey
      join item_merch_collection_dim ic on id.kpi_dw_skey = ic.kpi_dw_skey
      join item_merch_class_dim c on ic.kpi_dw_skey = c.kpi_dw_skey
      join item_merch_subclass_dim s on c.kpi_dw_skey = s.kpi_dw_skey;
```