--Create product dimesion table 3

CREATE TABLE TB\_PRODUCT\_DIM

(PRODUCT\_ID INTEGER NOT NULL,

PRODUCT\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_PRICE DECIMAL (20,2)NOT NULL,

PRODUCT\_LINE\_ID INTEGER NOT NULL,

PRODUCT\_LAST\_UPDATE TIMESTAMP NOT NULL,

CONSTRAINT TB\_PRODUCT\_DIM\_PK PRIMARY KEY(PRODUCT\_ID ))

--CREATE DATE DIMESION TABLE

--THE DATE\_ID COLUMN IS DEFINW AS DATE TYPE

--TO IMPROVE PERFORMANCE OF QUARIES WITH JOINS

--BETWEEN THIS TABLE AND THE FACE TABLE

CREATE TABLE TB\_DATE\_DIM

(DATE\_ID DATE NOT NULL,

WEEK\_IS SMALLINT NOT NULL,

MONTH\_IS SMALLINT NOT NULL,

MONTH\_NAME VARCHAR2(10) NOT NULL,

PERIOD\_ID SMALLINT NOT NULL,

YEAR SMALLINT NOT NULL,

CONSTRAINT TB\_DATE\_DIM\_PK

PRIMARY KEY(DATE\_ID)) ;

--CREATE PRODUCT FAMILTY DIMESION TABLE 1

CREATE TABLE TB\_PRODUCT\_FAMILY\_DIM

(PRODUCT\_FAMILY\_ID INTEGER NOT NULL,

PRODUCT\_FAMILY\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_FAMILY\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_FAMILY\_LAST\_UPDATE TIMESTAMP NOT NULL,

PRODUCT\_LINE\_OF\_BUSINESS\_ID INTEGER NOT NULL,

PRODUCT\_LINE\_OF\_BUSINESS\_NAME VARCHAR2(50) NOT NULL,

CONSTRAINT TB\_PRODUCT\_FAMILY\_DIM\_PK

PRIMARY KEY(PRODUCT\_FAMILY\_ID))

-- CREATE PRODUCT LINE DIMESION TABLE 2

CREATE TABLE TB\_PRODUCT\_LINE\_DIM

(PRODUCT\_LINE\_ID INTEGER NOT NULL,

PRODUCT\_FAMILY\_ID INTEGER NOT NULL,

PRODUCT\_LINE\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_LINE\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_LINE\_LAST\_UPDATE TIMESTAMP NOT NULL,

CONSTRAINT TB\_PRODUCT\_LINE\_DIM\_PK

PRIMARY KEY(PRODUCT\_LINE\_ID));

--CREATE STORE LOCATION DIMESION TABLE 1

CREATE TABLE TB\_STORE\_LOCATION\_DIM

(CITY\_ID INTEGER NOT NULL,

CITY\_NAME VARCHAR2(30) NOT NULL,

STATE\_ID INTEGER NOT NULL,

STATE\_NAME VARCHAR2(30) NOT NULL,

COUNTRY\_ID INTEGER NOT NULL,

COUNTRY\_NAME VARCHAR2(30) NOT NULL,

CONSTRAINT TB\_STORE\_LOCATION\_DIM\_PK

PRIMARY KEY(CITY\_ID))

--CREATE STORE DIMESTION TABLE 2

CREATE TABLE TB\_STORE\_DIM

(STORE\_ID INTEGER NOT NULL ,

STORE\_NAME VARCHAR2(30) NOT NULL ,

CITY\_ID INTEGER NOT NULL ,

CONSTRAINT TB\_STORE\_DIM\_PK

PRIMARY KEY(STORE\_ID))

--CREATE SALES FACT TABLE AS PER RANGE PARTITION BY MONTH

CREATE TABLE TB\_SALES\_FACT

( DATE\_ID DATE NOT NULL,

PRODUCT\_ID INTEGER NOT NULL ,

STORE\_ID INTEGER NOT NULL ,

QUANTITY INTEGER NOT NULL ,

COST\_VALUE DECIMAL(10,2) NOT NULL,

TAX\_VALUE DECIMAL(10,2) NOT NULL,

NET\_VALUE DECIMAL(10,2) NOT NULL,

GROSS\_VALUE DECIMAL(10,2) NOT NULL)

--DEFINE RELATIONSHIP BETWEEN TB\_SALE\_FACT

--AND TB\_PRODUCT\_DIM

ALTER TABLE TB\_SALES\_FACT ADD CONSTRAINT TB\_PRODUCT\_FACT\_FK

FOREIGN KEY(PRODUCT\_ID) REFERENCES TB\_PRODUCT\_DIM(PRODUCT\_ID)

--DEFINE RELATIONSHIP BETWEEN TB\_PRODUCT\_FACT

--AND TB\_PRODUCT\_LINE\_DIM

ALTER TABLE TB\_PRODUCT\_DIM ADD CONSTRAINT TB\_PRODUCT\_LINE\_FK

FOREIGN KEY(PRODUCT\_LINE\_ID) REFERENCES TB\_PRODUCT\_LINE\_DIM(PRODUCT\_LINE\_ID)

--DEFINE RELATIONSHIP BETWEEN TB\_PRODUCT\_LINE\_DIM

--AND TB\_PRODUCT\_FAMILY\_DIM

ALTER TABLE TB\_PRODUCT\_LINE\_DIM ADD CONSTRAINT TB\_PRODUCT\_FAMILY\_FK

FOREIGN KEY(PRODUCT\_LINE\_ID) REFERENCES TB\_PRODUCT\_FAMILY\_DIM(PRODUCT\_FAMILY\_ID)

--DEFINE RELATIONSHIP BETWEEN TB\_STORE\_DIM

--AND TB\_STORE\_LOCATION\_DIM

ALTER TABLE TB\_STORE\_DIM ADD CONSTRAINT TB\_CITY\_FK

FOREIGN KEY(CITY\_ID) REFERENCES TB\_STORE\_LOCATION\_DIM(CITY\_ID)

--DEFINE RELATIONSHIP BETWEEN TB\_SALES\_FACT

--AND TB\_STORE\_DIM

ALTER TABLE TB\_SALES\_FACT ADD CONSTRAINT TB\_SALES\_FACT\_FK

FOREIGN KEY(STORE\_ID) REFERENCES TB\_STORE\_DIM(STORE\_ID)

--DEFINE RELATIONSHIP BETWEEN TB\_SALES\_FACT

--AND TB\_DATE\_DIM

ALTER TABLE TB\_SALES\_FACT ADD CONSTRAINT TB\_DATE\_FACT\_FK

FOREIGN KEY(DATE\_ID) REFERENCES TB\_DATE\_DIM(DATE\_ID)

--CREATE PRODUCT FAMILTY DIMESION TABLE target 1

CREATE TABLE TB\_PRODUCT\_FAMILY\_DIM\_T

(PRODUCT\_FAMILY\_ID INTEGER NOT NULL,

PRODUCT\_FAMILY\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_FAMILY\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_FAMILY\_LAST\_UPDATE TIMESTAMP NOT NULL,

PRODUCT\_LINE\_OF\_BUSINESS\_ID INTEGER NOT NULL,

PRODUCT\_LINE\_OF\_BUSINESS\_NAME VARCHAR2(50) NOT NULL,

CONSTRAINT TB\_PRODUCT\_FAMILY\_DIM\_T\_PK

PRIMARY KEY(PRODUCT\_FAMILY\_ID))

select \*from TB\_PRODUCT\_FAMILY\_DIM\_T

-- CREATE PRODUCT LINE DIMESION TABLE 2

CREATE TABLE TB\_PRODUCT\_LINE\_DIM\_T

(PRODUCT\_LINE\_ID INTEGER NOT NULL,

PRODUCT\_FAMILY\_ID INTEGER NOT NULL,

PRODUCT\_LINE\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_LINE\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_LINE\_LAST\_UPDATE TIMESTAMP NOT NULL,

CONSTRAINT TB\_PRODUCT\_LINE\_DIM\_T\_PK

PRIMARY KEY(PRODUCT\_LINE\_ID));

select \*from TB\_PRODUCT\_FAMILY\_DIM\_T

--DEFINE RELATIONSHIP BETWEEN TB\_PRODUCT\_LINE\_DIM

--AND TB\_PRODUCT\_FAMILY\_DIM

ALTER TABLE TB\_PRODUCT\_LINE\_DIM\_T ADD CONSTRAINT TB\_PRODUCT\_FAMILY\_T\_FK

FOREIGN KEY(PRODUCT\_LINE\_ID) REFERENCES TB\_PRODUCT\_FAMILY\_DIM\_T(PRODUCT\_FAMILY\_ID)

--Create product dimesion table 3

CREATE TABLE TB\_PRODUCT\_DIM\_T

(PRODUCT\_ID INTEGER NOT NULL,

PRODUCT\_NAME VARCHAR2(50) NOT NULL,

PRODUCT\_DESCRIPTION VARCHAR2(1000) NOT NULL,

PRODUCT\_PRICE DECIMAL (20,2)NOT NULL,

PRODUCT\_LINE\_ID INTEGER NOT NULL,

PRODUCT\_LAST\_UPDATE TIMESTAMP NOT NULL,

CONSTRAINT TB\_PRODUCT\_DIM\_T\_PK PRIMARY KEY(PRODUCT\_ID ))

--DEFINE RELATIONSHIP BETWEEN TB\_PRODUCT\_FACT

--AND TB\_PRODUCT\_LINE\_DIM

ALTER TABLE TB\_PRODUCT\_DIM\_T ADD CONSTRAINT TB\_PRODUCT\_LINE\_T\_FK

FOREIGN KEY(PRODUCT\_LINE\_ID) REFERENCES TB\_PRODUCT\_LINE\_DIM\_T(PRODUCT\_LINE\_ID)

select f.PRODUCT\_ID, f.STORE\_ID ,count(QUANTITY) from TB\_SALES\_FACT f where f.product\_id in( select product\_id from TB\_PRODUCT\_DIM where product\_line\_id in (select product\_line\_id from TB\_PRODUCT\_LINE\_DIM where product\_family\_id in ( select product\_family\_id from TB\_PRODUCT\_FAMILY\_DIM)))

and f.STORE\_ID in( select store\_id from TB\_STORE\_DIM where city\_id in( select city\_id from TB\_STORE\_LOCATION\_DIM )) group by f.PRODUCT\_ID, f.STORE\_ID