# 2. Data Warehouse Architecture – Storage Layers

## 2.1. Task 01: CREATE Storage Objects

1. SA\_CUSTOMERS

drop table u\_sa\_customers\_data.sa\_customers cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_customers \*/

/\*==============================================================\*/

create table u\_sa\_customers\_data.sa\_customers (

CUSTOMER\_ID NUMBER not null,

FIRST\_NAME VARCHAR2(128) not null,

LAST\_NAME VARCHAR2(128) not null,

GENDER VARCHAR2(10) not null,

AGE NUMBER not null,

EMAIL VARCHAR2(128) not null,

PHONE VARCHAR2(128) not null,

constraint PK\_SA\_CUSTOMERS primary key (CUSTOMER\_ID)

)

tablespace ts\_sa\_customers\_data\_01;

1. SA\_STORES

drop table u\_sa\_stores\_data.sa\_stores cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_stores \*/

/\*==============================================================\*/

create table u\_sa\_stores\_data.sa\_stores (

STORE\_ID NUMBER not null,

EMAIL VARCHAR2(128) not null,

PHONE VARCHAR2(128) not null,

constraint PK\_SA\_STORES primary key (STORE\_ID)

)

tablespace ts\_sa\_stores\_data\_01;

1. SA\_EMPLOYEES

drop table u\_sa\_employees\_data.sa\_employees cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_employees \*/

/\*==============================================================\*/

create table u\_sa\_employees\_data.sa\_employees (

EMPLOYEE\_ID NUMBER not null,

FIRST\_NAME VARCHAR2(128) not null,

LAST\_NAME VARCHAR2(128) not null,

EMAIL VARCHAR2(128) not null,

PHONE VARCHAR2(128) not null,

STORE\_ID NUMBER not null,

HIRE\_DATE DATE not null,

constraint PK\_SA\_EMPLOYEES primary key (EMPLOYEE\_ID)

)

tablespace ts\_sa\_employees\_data\_01;

1. SA\_PIZZAS

drop table u\_sa\_pizzas\_data.sa\_pizzas cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_pizzas \*/

/\*==============================================================\*/

create table u\_sa\_pizzas\_data.sa\_pizzas (

PIZZA\_ID NUMBER not null,

PIZZA\_DESC VARCHAR2(128) not null,

PIZZA\_WEIGHT NUMBER not null,

PIZZA\_DIAMETER NUMBER not null,

PIZZA\_PRICE NUMBER not null,

CATEGORY\_ID NUMBER not null,

CATEGORY\_DESC VARCHAR2(128) not null,

constraint PK\_SA\_PIZZAS\_SCD primary key (PIZZA\_ID)

)

tablespace ts\_sa\_pizzas\_data\_01;

1. SA\_PROMOTIONS

drop table u\_sa\_promotions\_data.sa\_promotions cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_promotions \*/

/\*==============================================================\*/

create table u\_sa\_promotions\_data.sa\_promotions (

PROMOTION\_ID NUMBER not null,

PROMOTION\_DESC VARCHAR2(128) not null,

PROMOTION\_PERCENT NUMBER not null,

PROMOTION\_TYPE\_ID NUMBER not null,

PROMOTION\_TYPE\_DESC VARCHAR2(128) not null,

constraint PK\_SA\_PROMOTIONS primary key (PROMOTION\_ID)

)

tablespace ts\_sa\_promotions\_data\_01;

1. SA\_GEO\_LOCATIONS

drop table u\_sa\_geo\_locations\_data.sa\_geo\_locations cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_geo\_locations \*/

/\*==============================================================\*/

create table u\_sa\_geo\_locations\_data.sa\_geo\_locations (

GEO\_ID NUMBER not null,

GEO\_COUNTRY\_ID NUMBER not null,

GEO\_COUNTRY\_CODE\_A2 VARCHAR2(128) not null,

GEO\_COUNTRY\_CODE\_A3 VARCHAR2(128) not null,

GEO\_COUNTRY\_DESC VARCHAR2(128) not null,

GEO\_REGION\_ID NUMBER not null,

GEO\_REGION\_DESC VARCHAR2(128) not null,

GEO\_REGION\_CODE NUMBER not null,

GEO\_PART\_ID NUMBER not null,

GEO\_PART\_CODE NUMBER not null,

GEO\_PART\_DESC VARCHAR2(128) not null,

GEO\_SYSTEM\_ID NUMBER not null,

GEO\_SYSTEM\_CODE NUMBER not null,

GEO\_SYSTEM\_DESC VARCHAR2(128) not null,

constraint PK\_SA\_GEO\_LOCATIONS primary key (GEO\_ID)

)

tablespace ts\_sa\_geo\_locations\_data\_01;

1. SA\_SALES

drop table u\_sa\_sales\_data.sa\_sales cascade constraints;

/\*==============================================================\*/

/\* Table: sa\_sales \*/

/\*==============================================================\*/

create table u\_sa\_sales\_data.sa\_sales (

SALES\_ID NUMBER not null,

SALES\_AMOUNT NUMBER not null,

SALES\_SUM NUMBER not null,

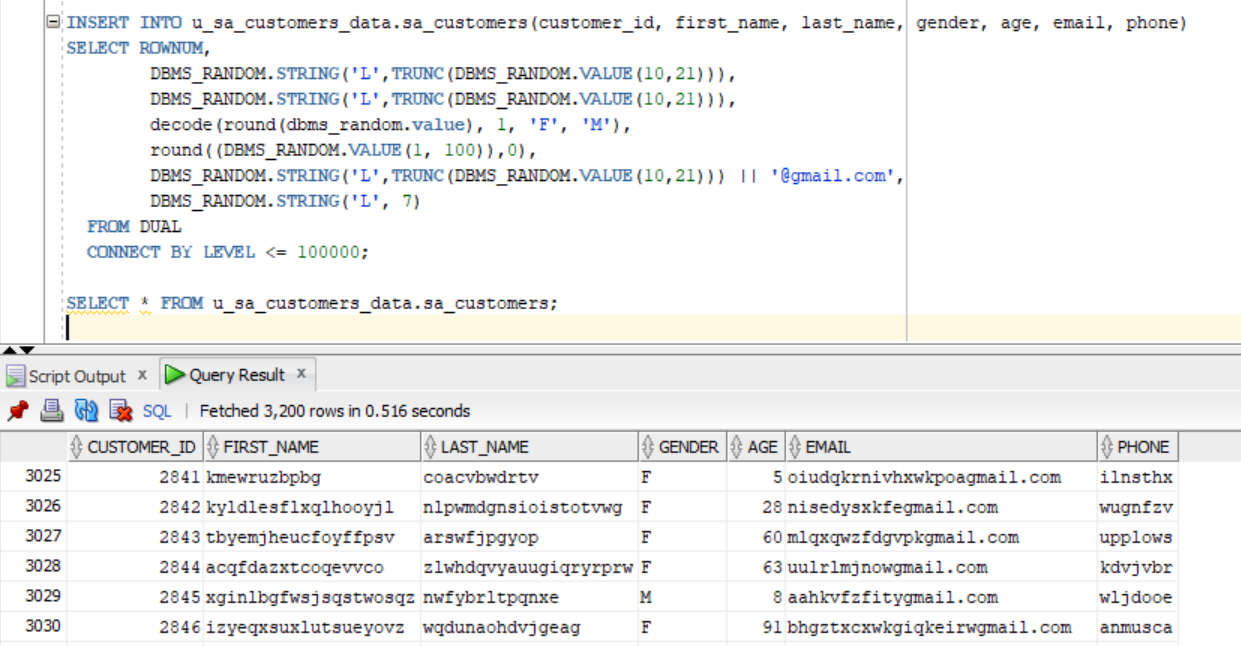
constraint PK\_FCT\_SALES primary key (SALES\_ID)

)

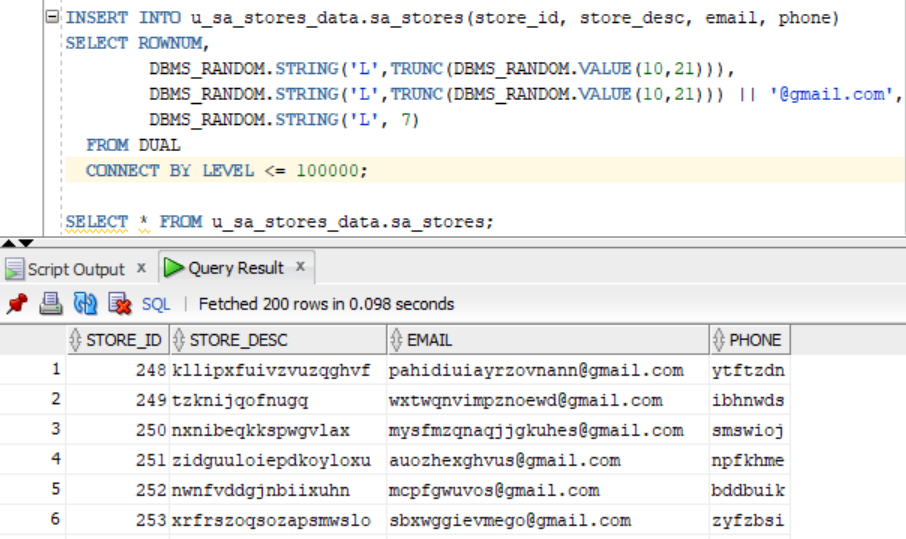
tablespace ts\_sa\_sales\_data\_01;

## 2.2. Task 02: Generate Test Data in Storage Layers

1. SA\_CUSTOMERS



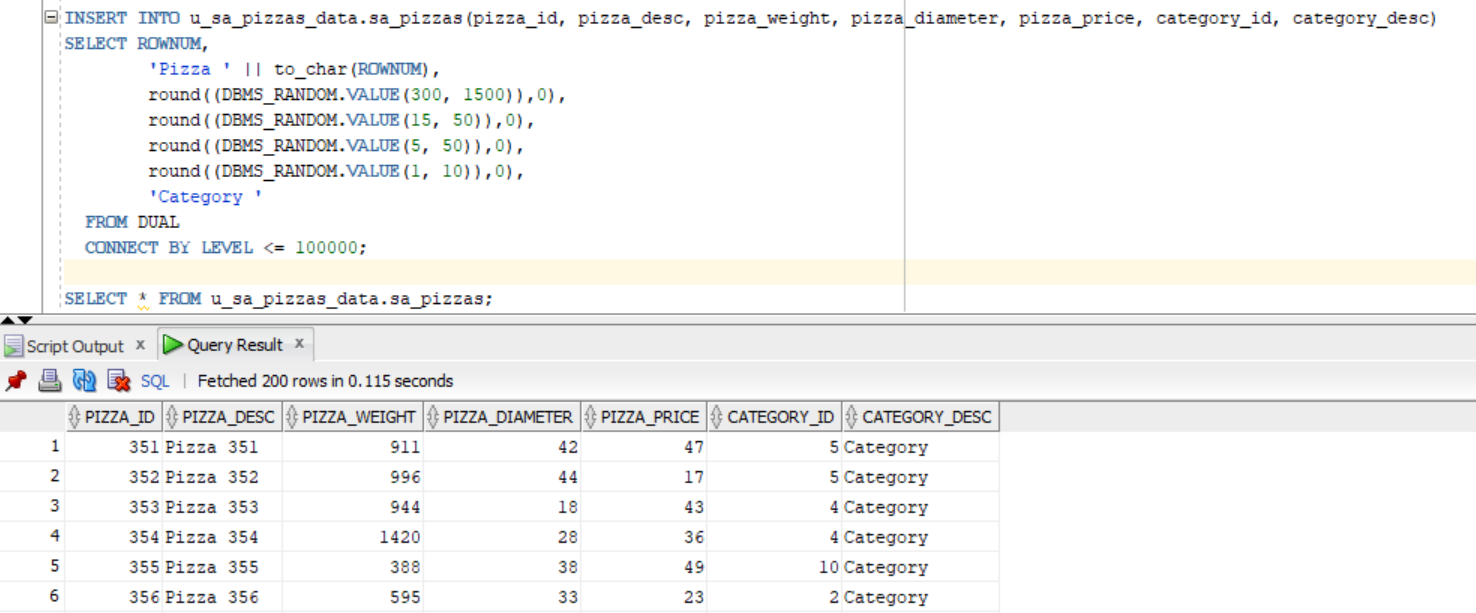
1. SA\_STORES



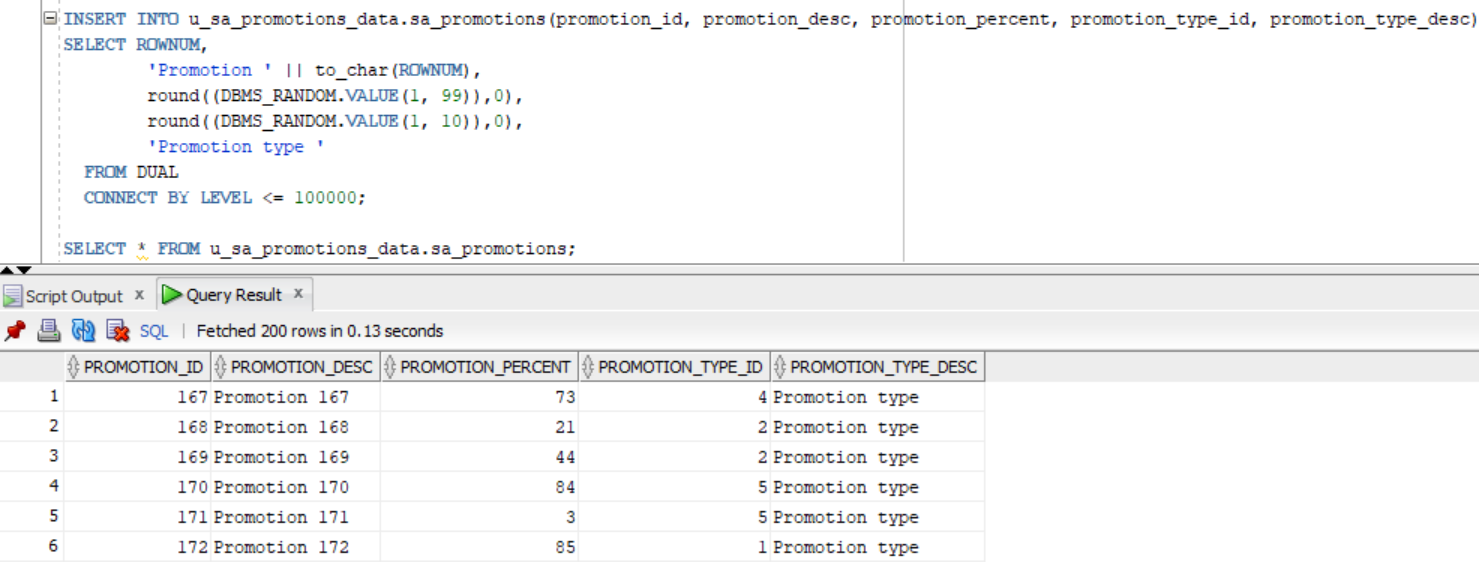
1. SA\_EMPLOYEES



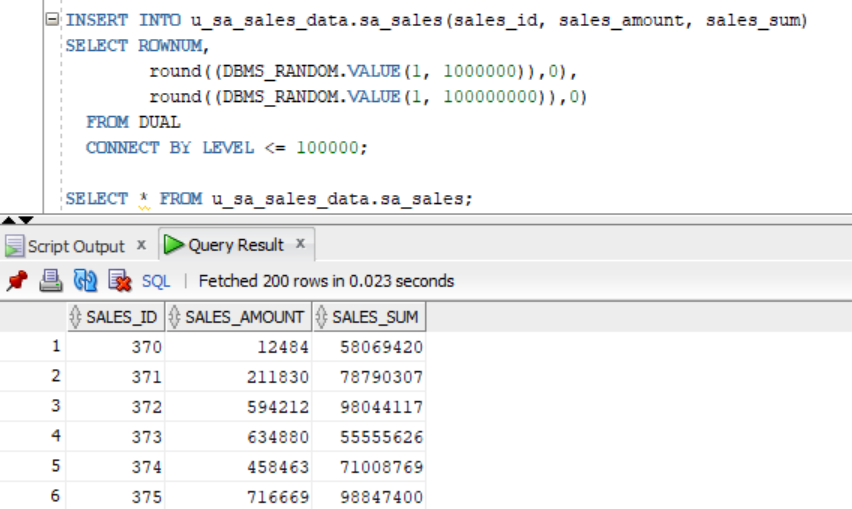
1. SA\_PIZZAS



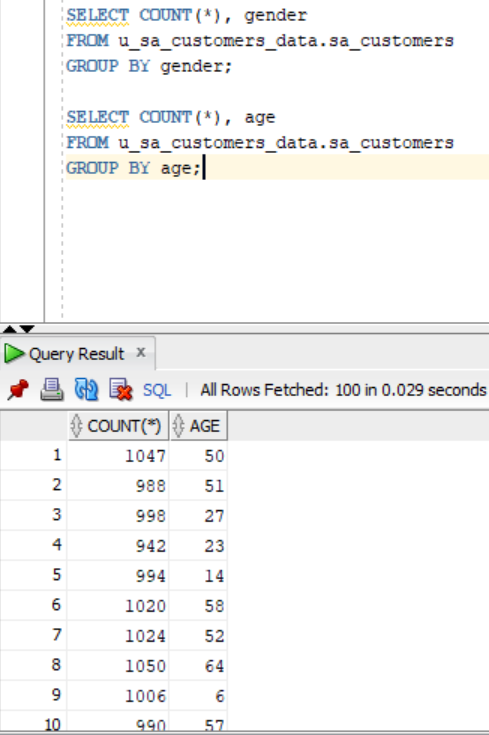
1. SA\_PROMOTIONS

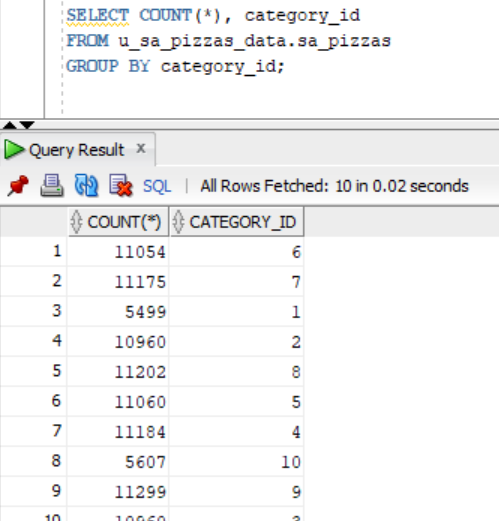


1. SA\_SALES



## 2.3. Task 03: Create Group by Plan

****

****