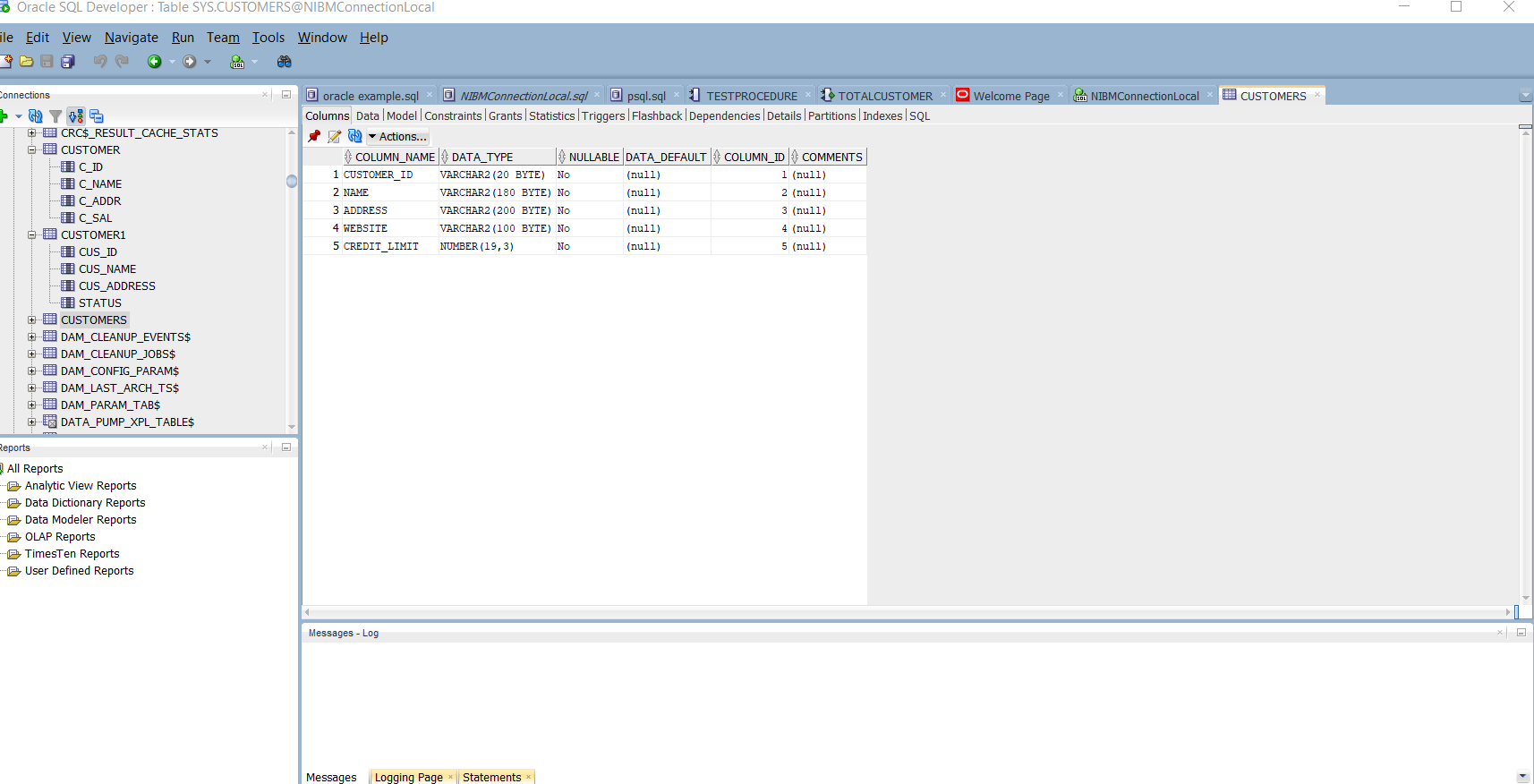
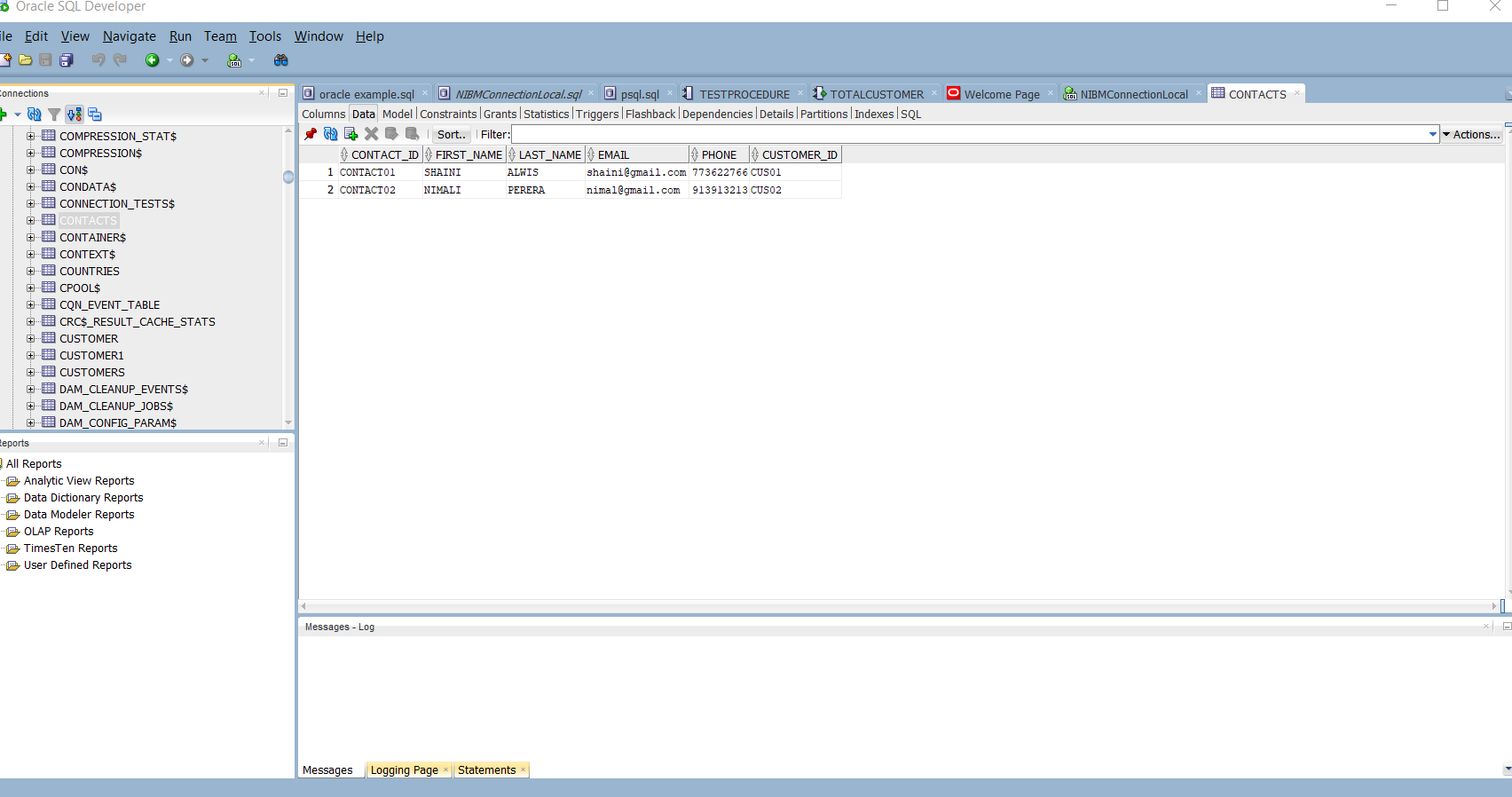
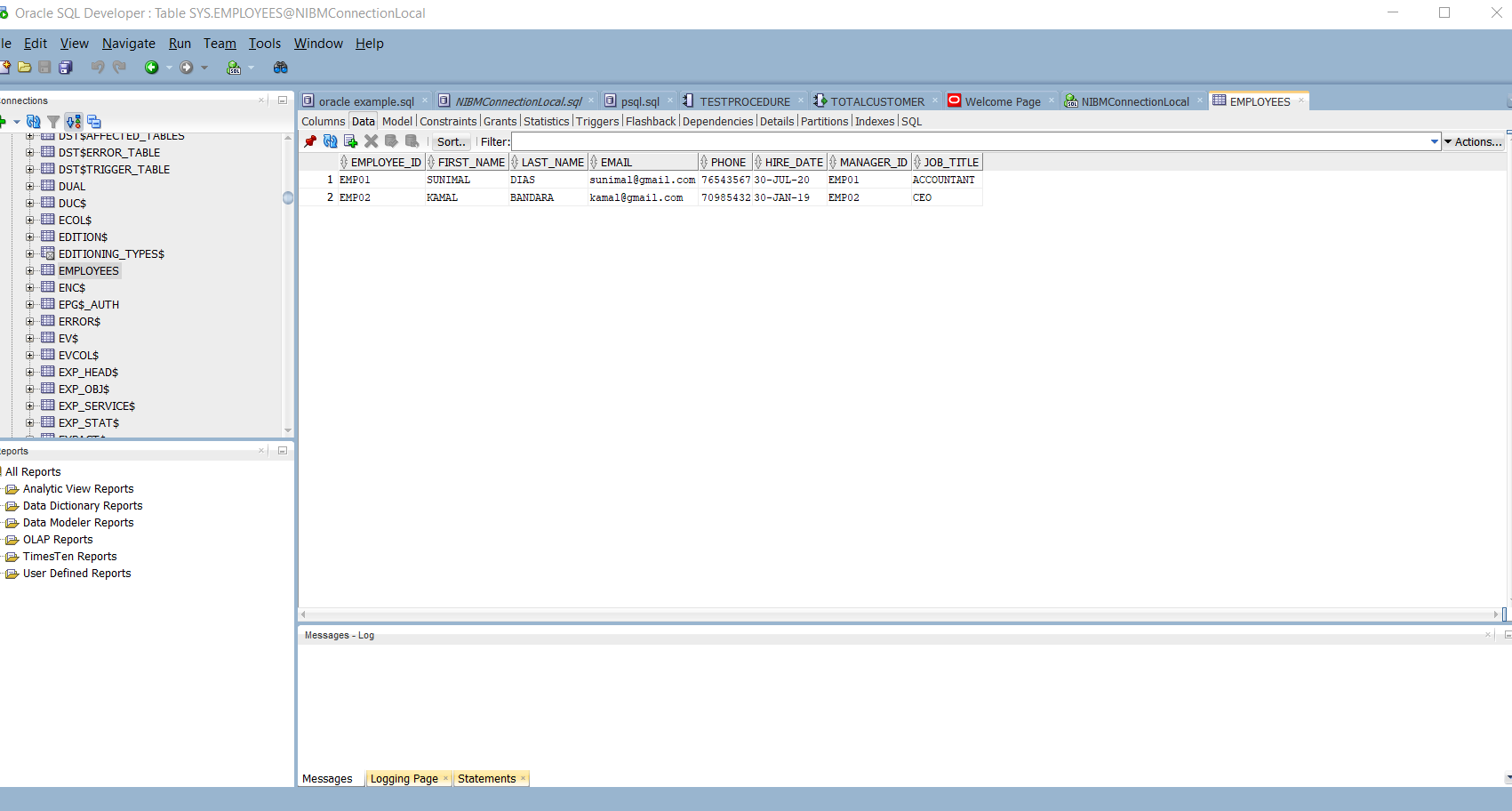
1. CUSTOMERS TABLE



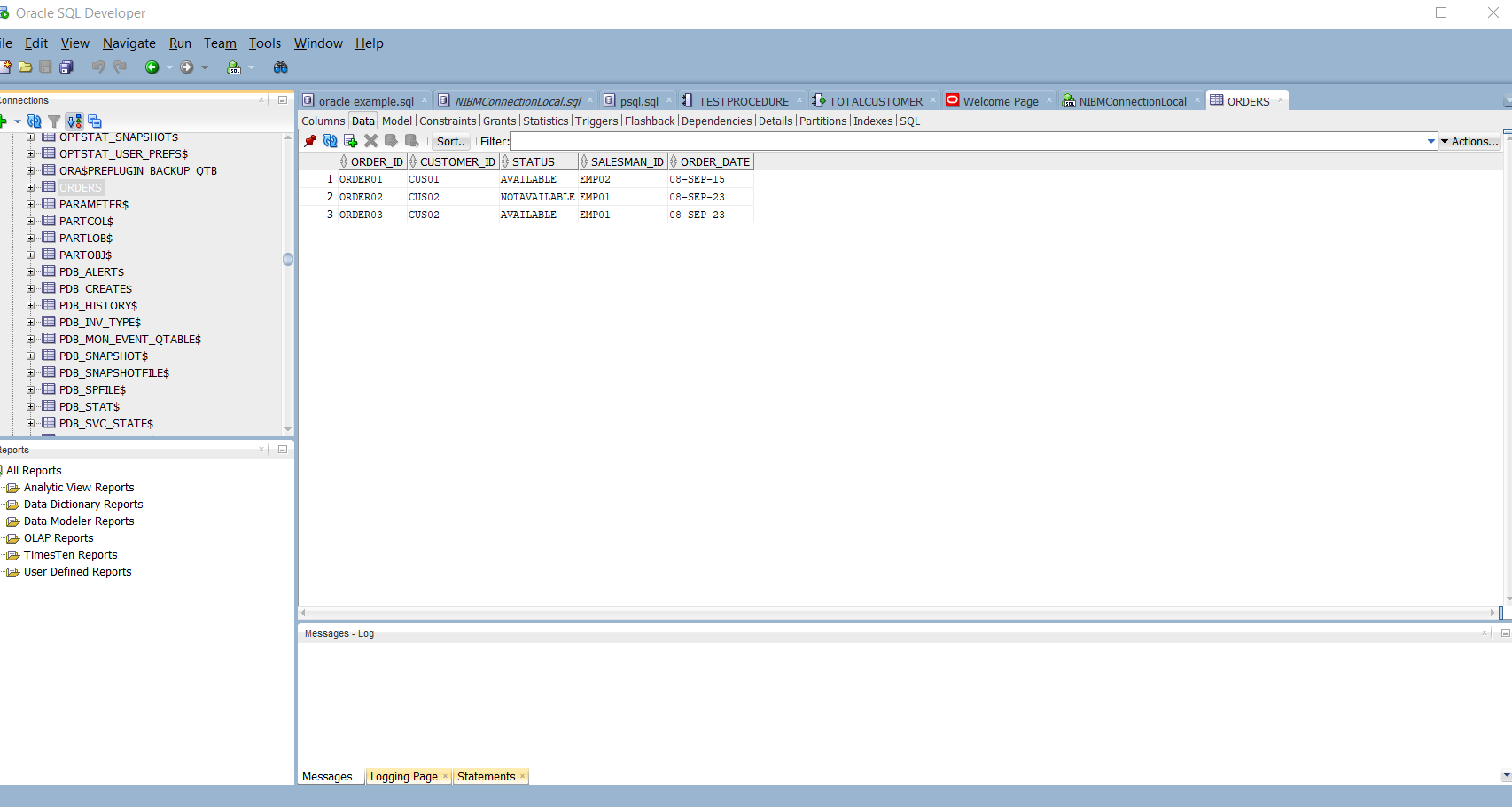
1. CONTACTS TABLE



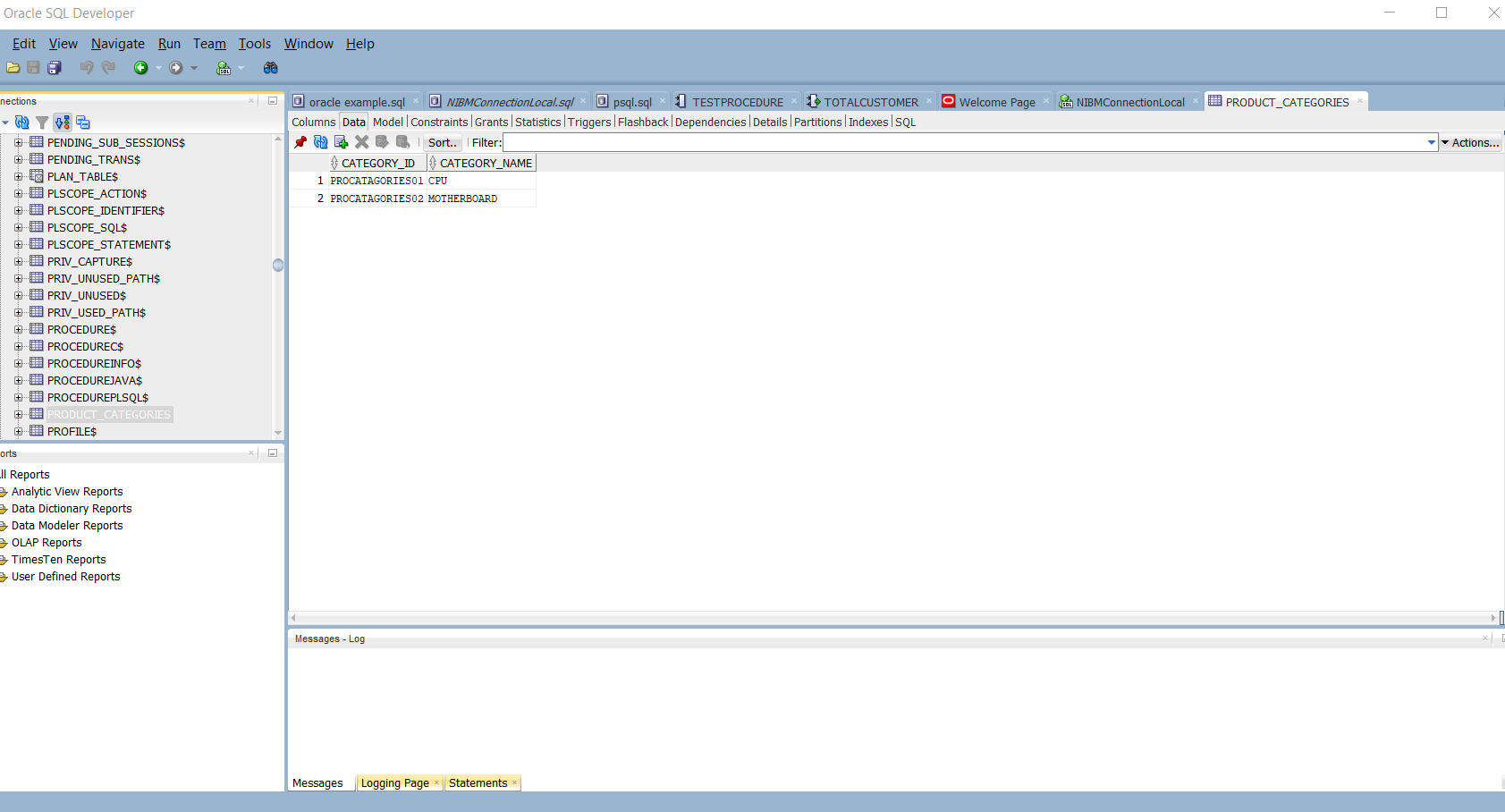
1. EMPLOYEES TABLE



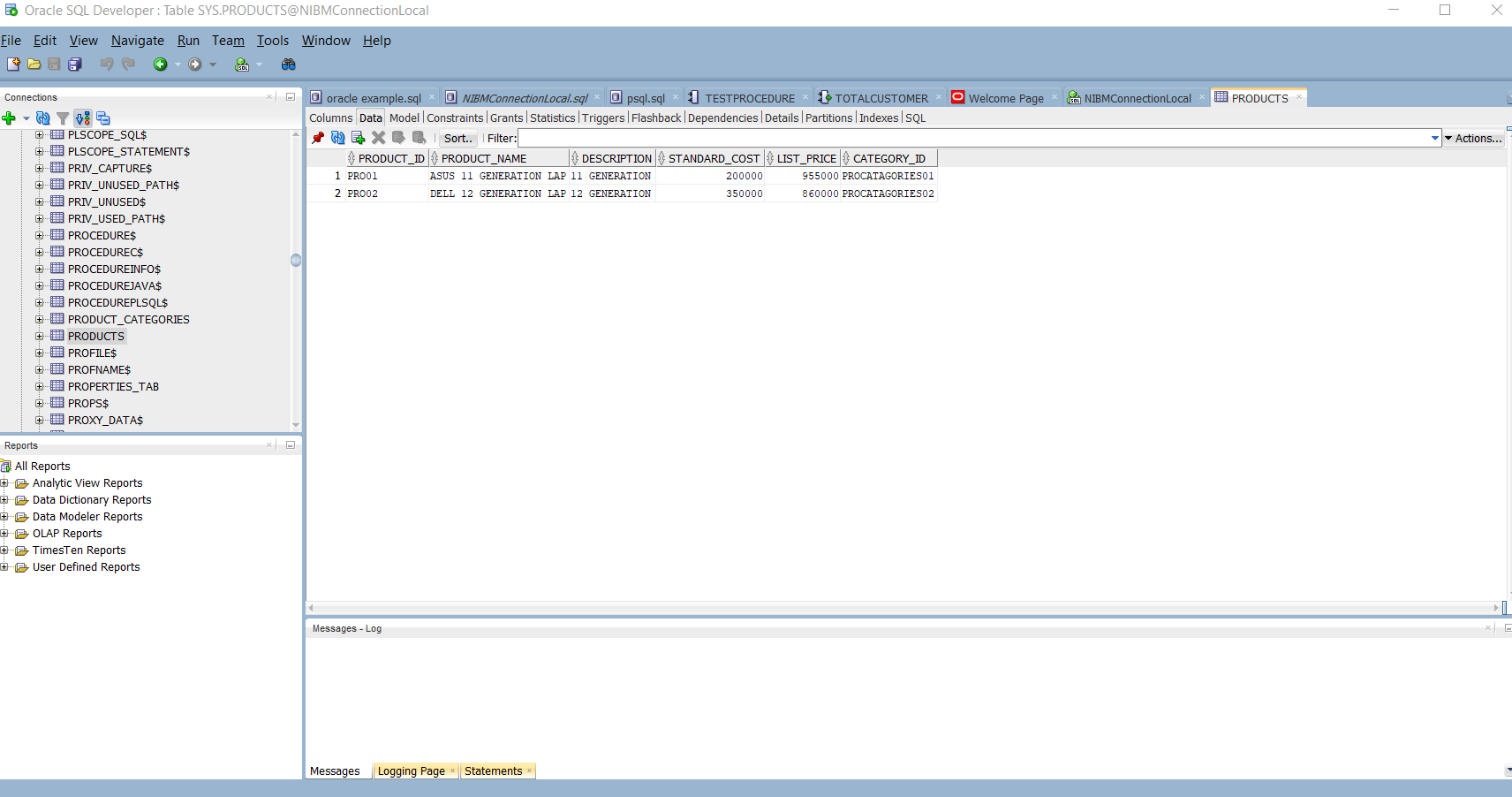
1. ORDERS



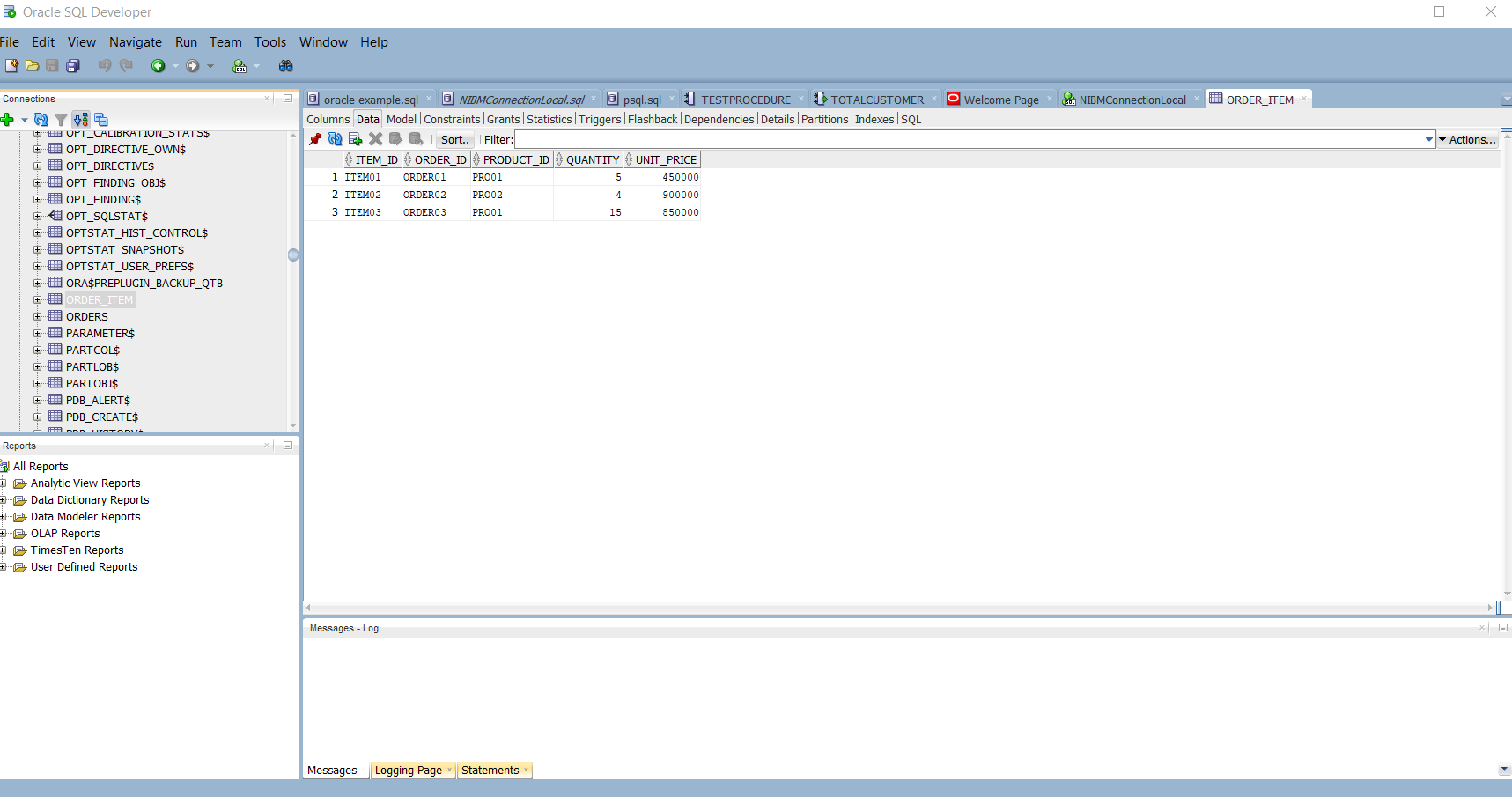
1. PRODUCT CATAGORIES



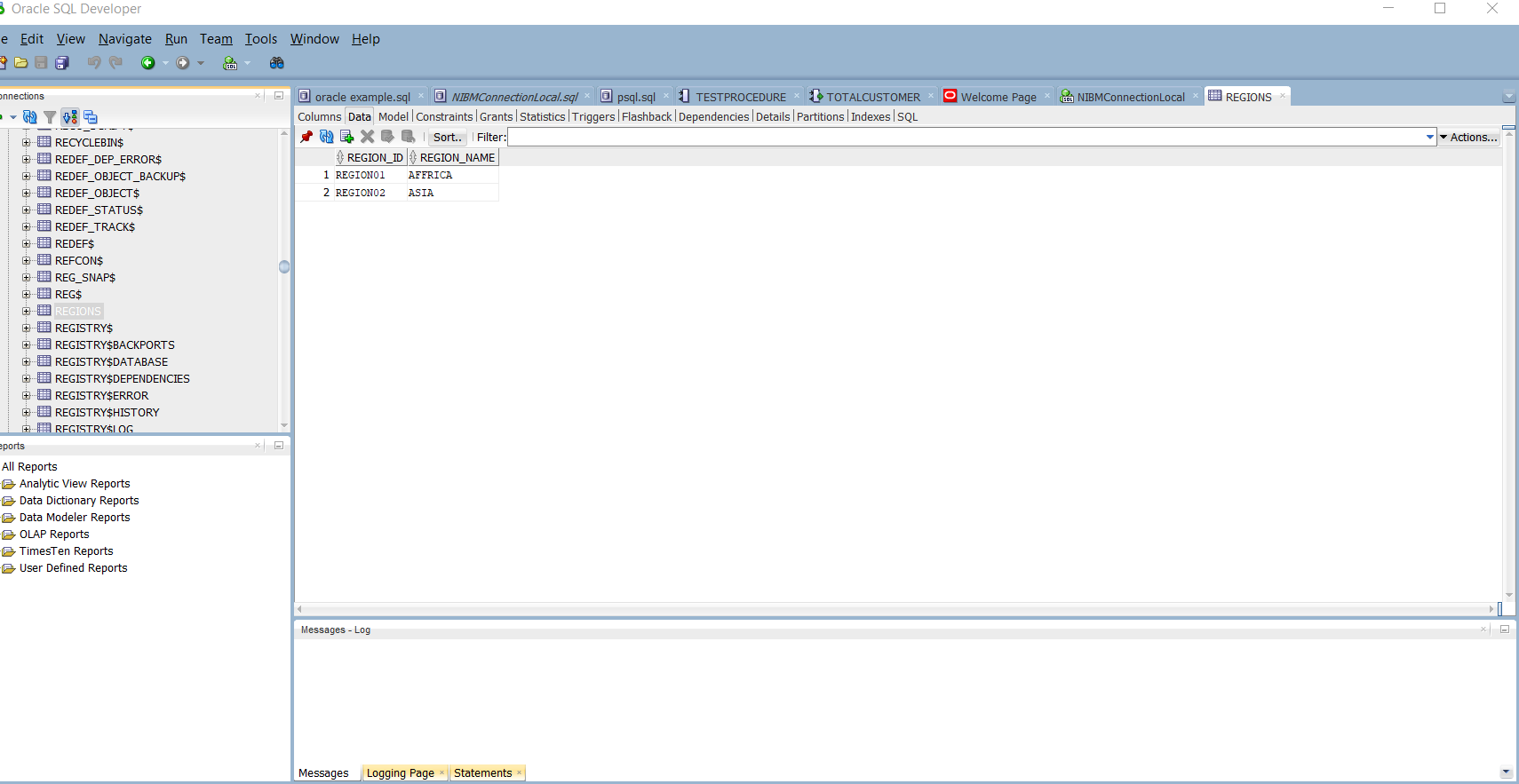
1. PRODUCTS



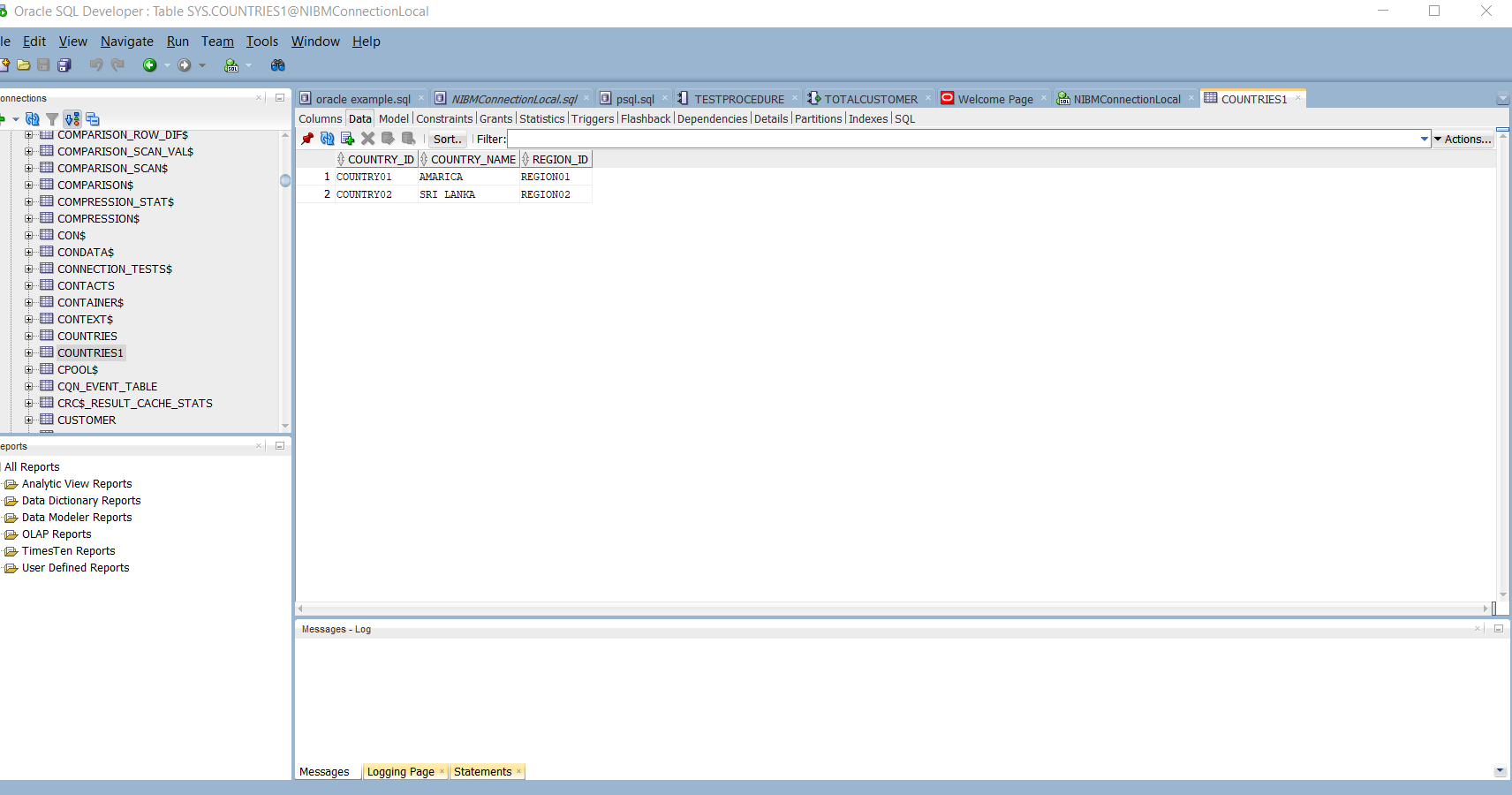
1. ORDER\_ITEM



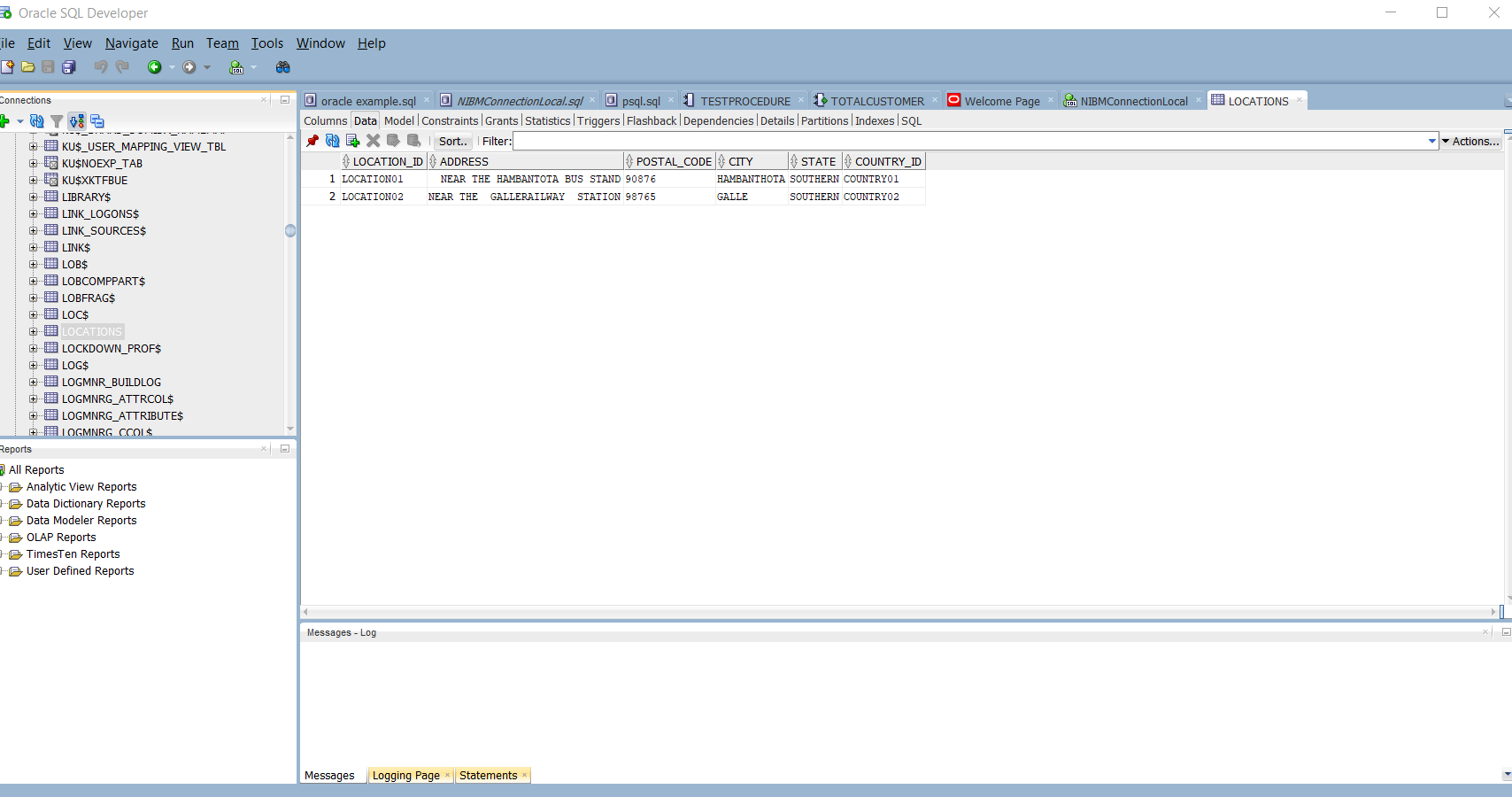
1. REGIONS TABLE



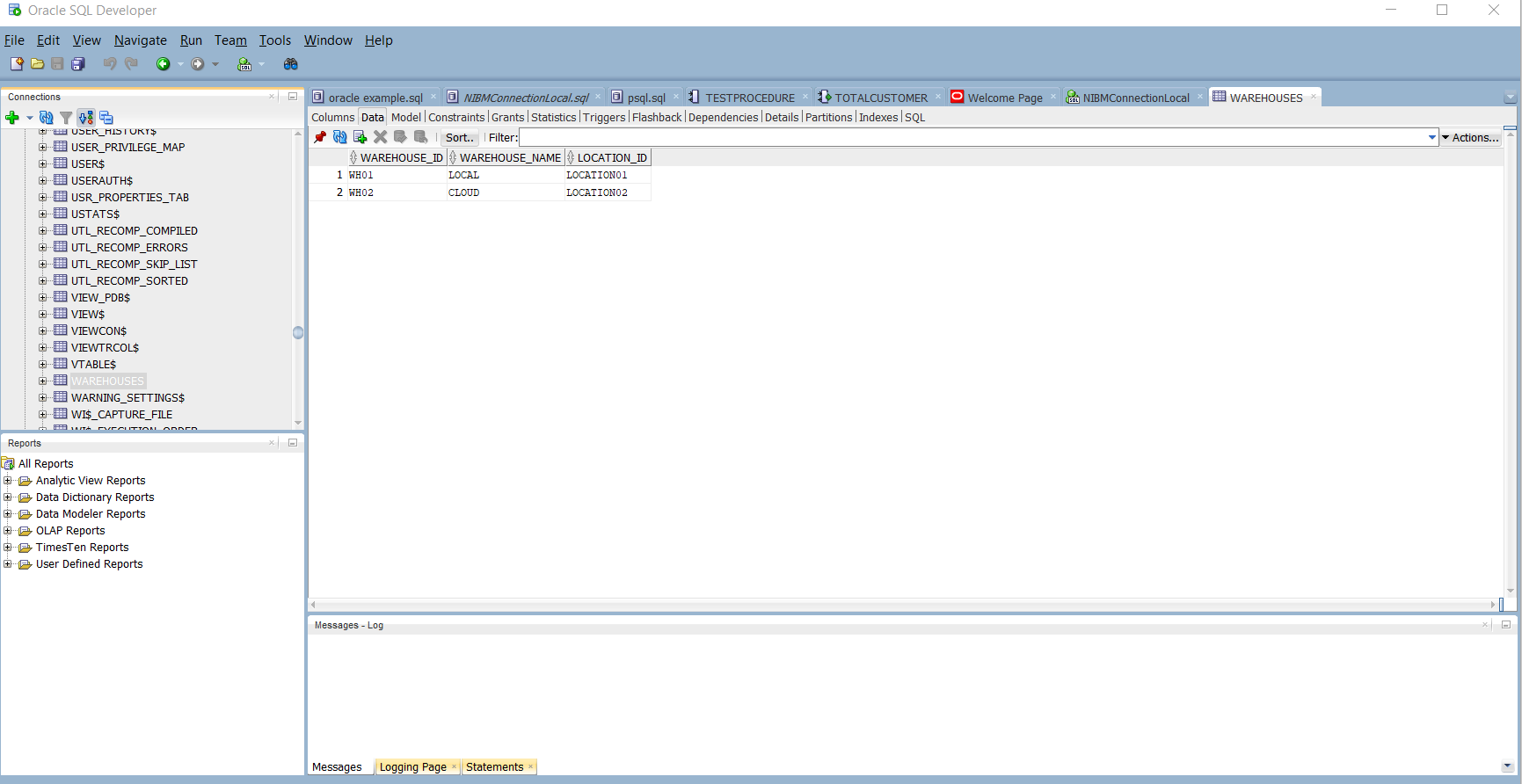
1. COUNTRIES1



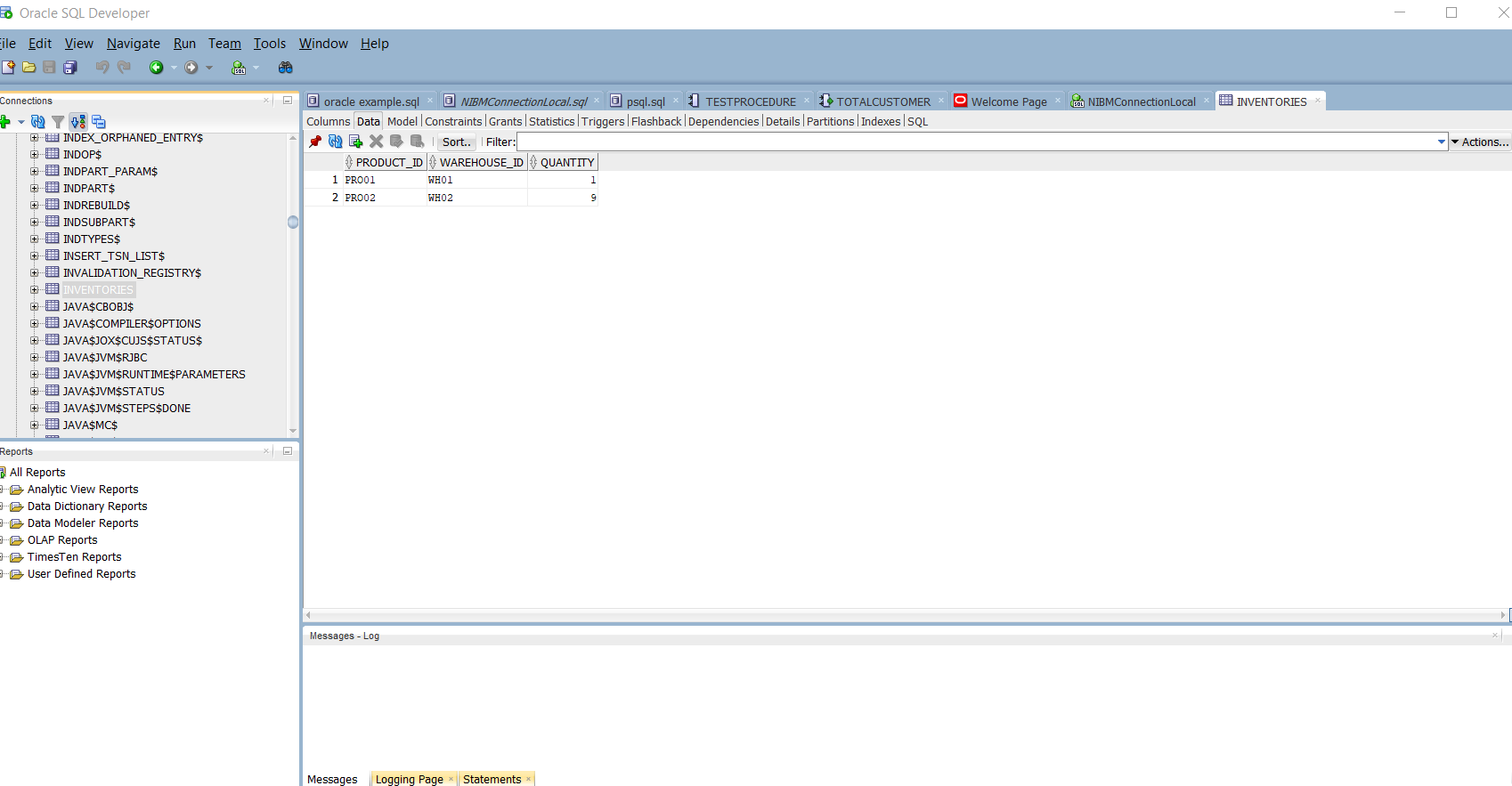
1. LOCATIONS



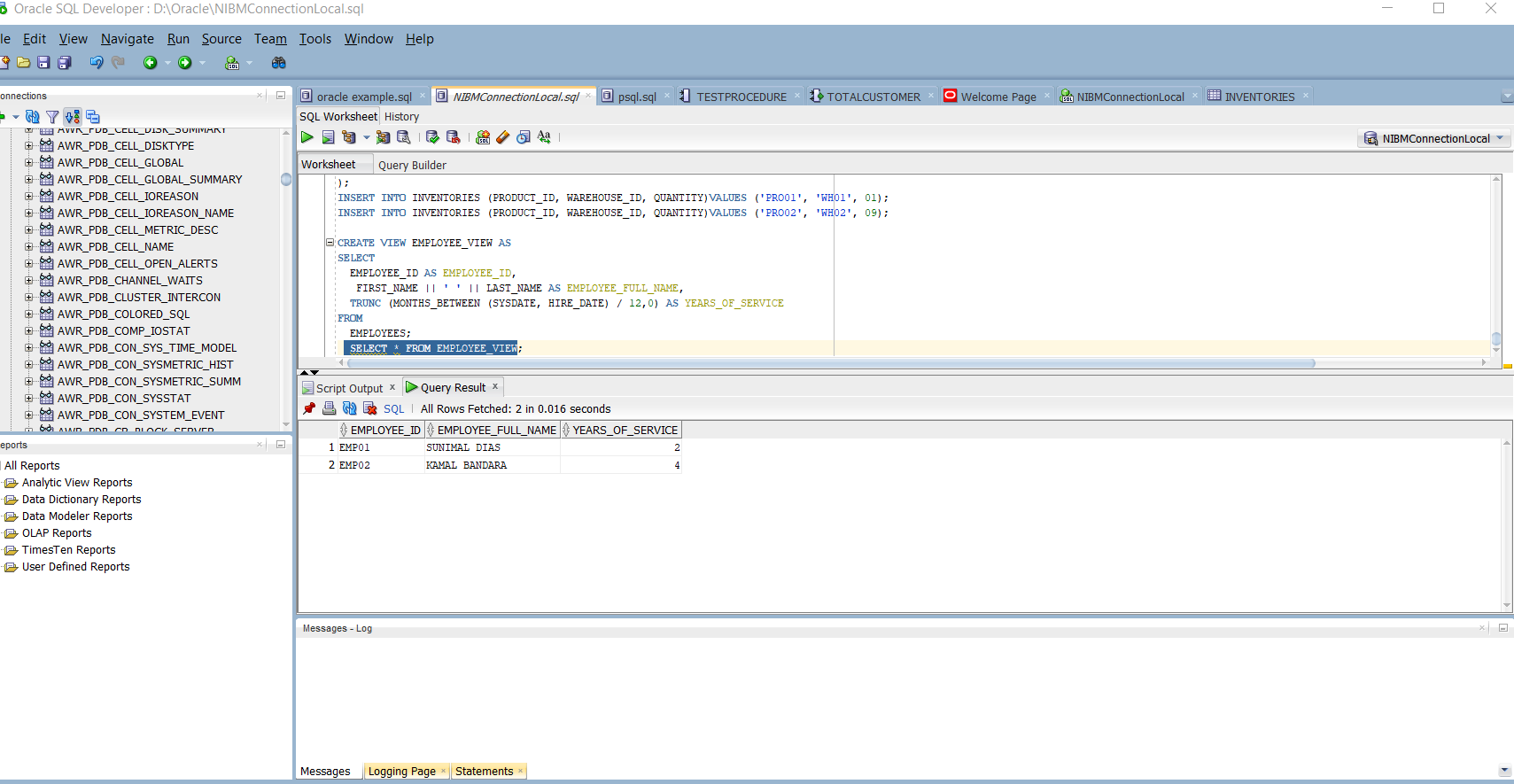
1. WAREHOUSES



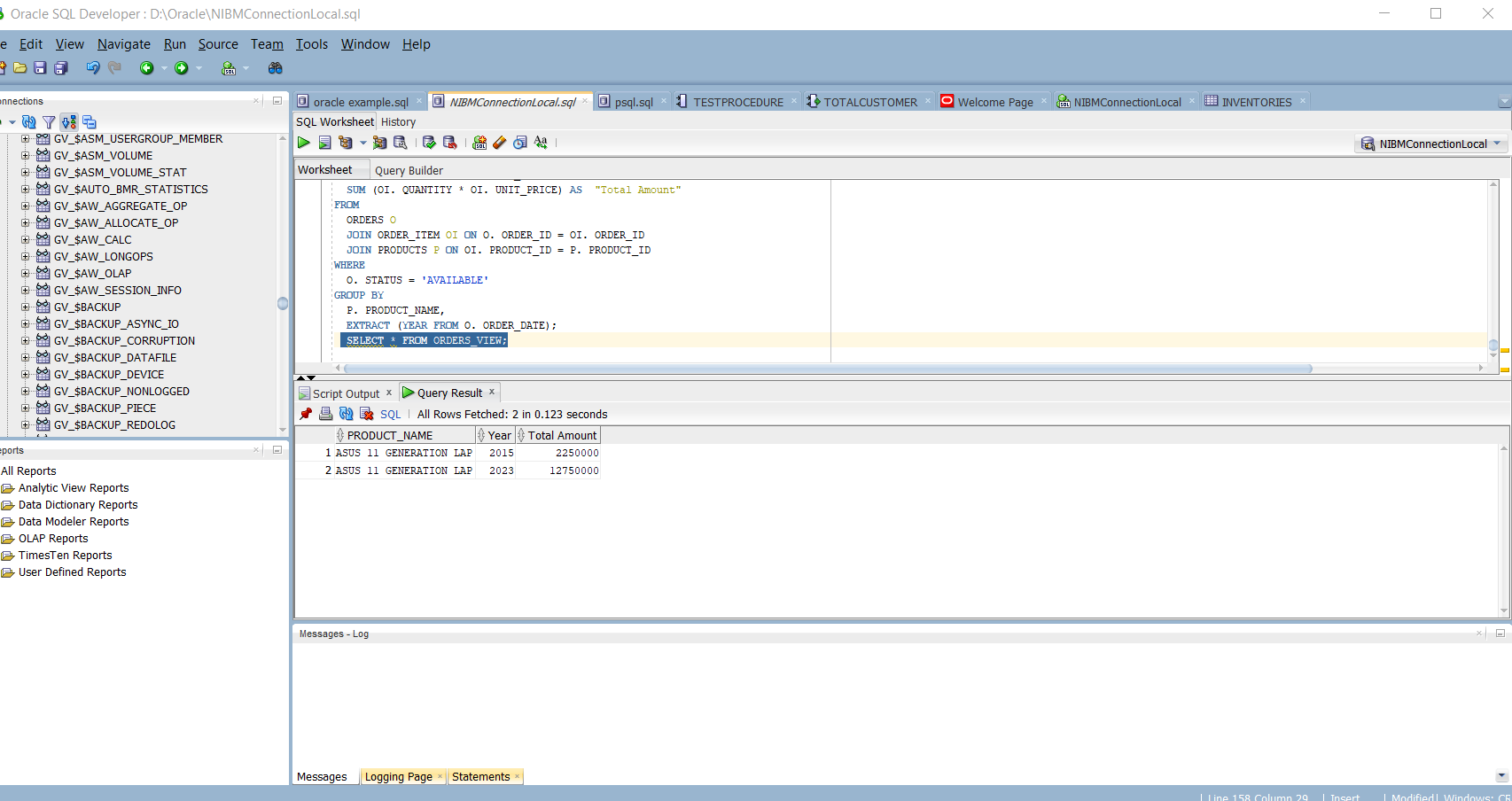
1. INVENTORIES



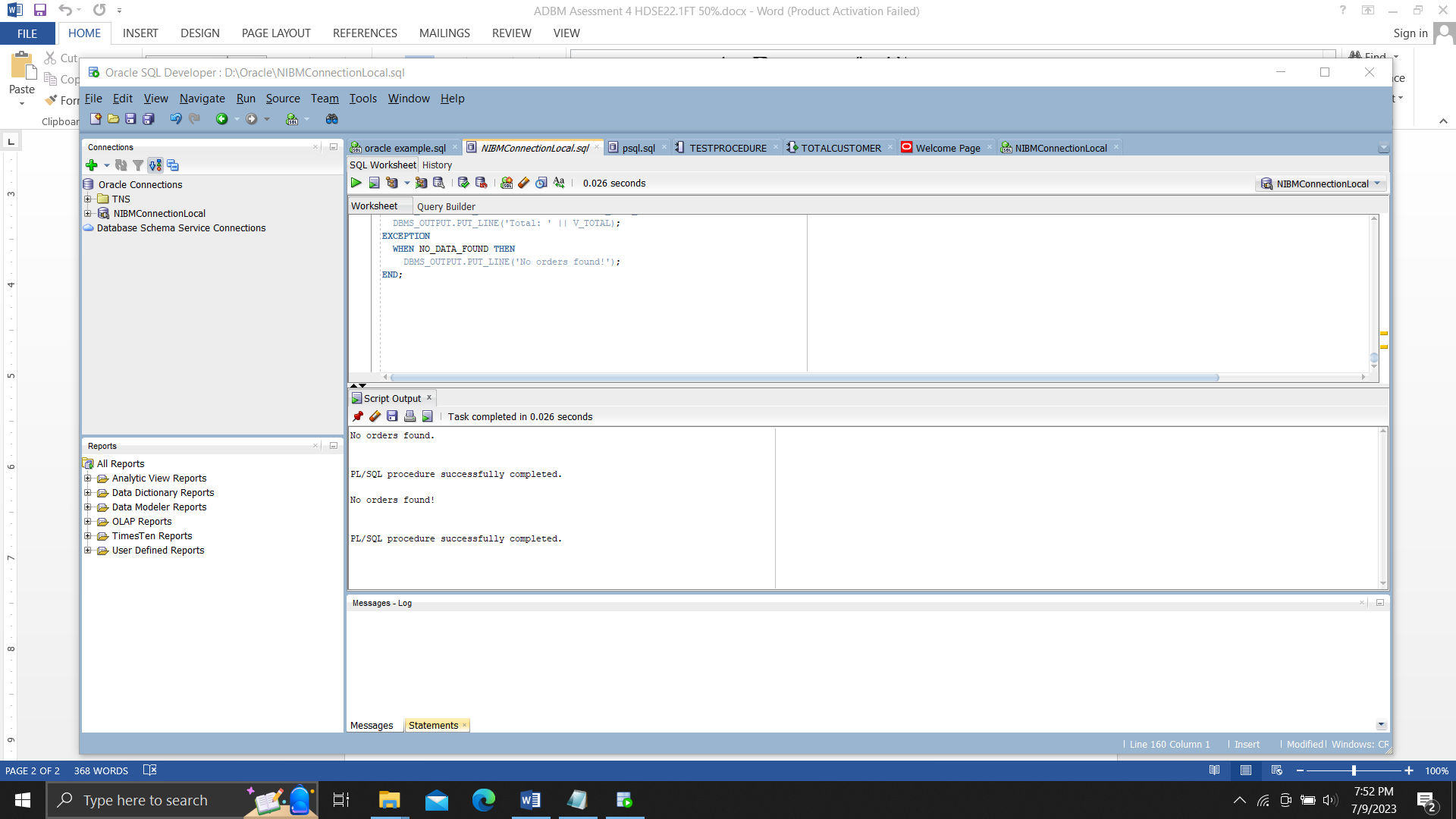
Q1



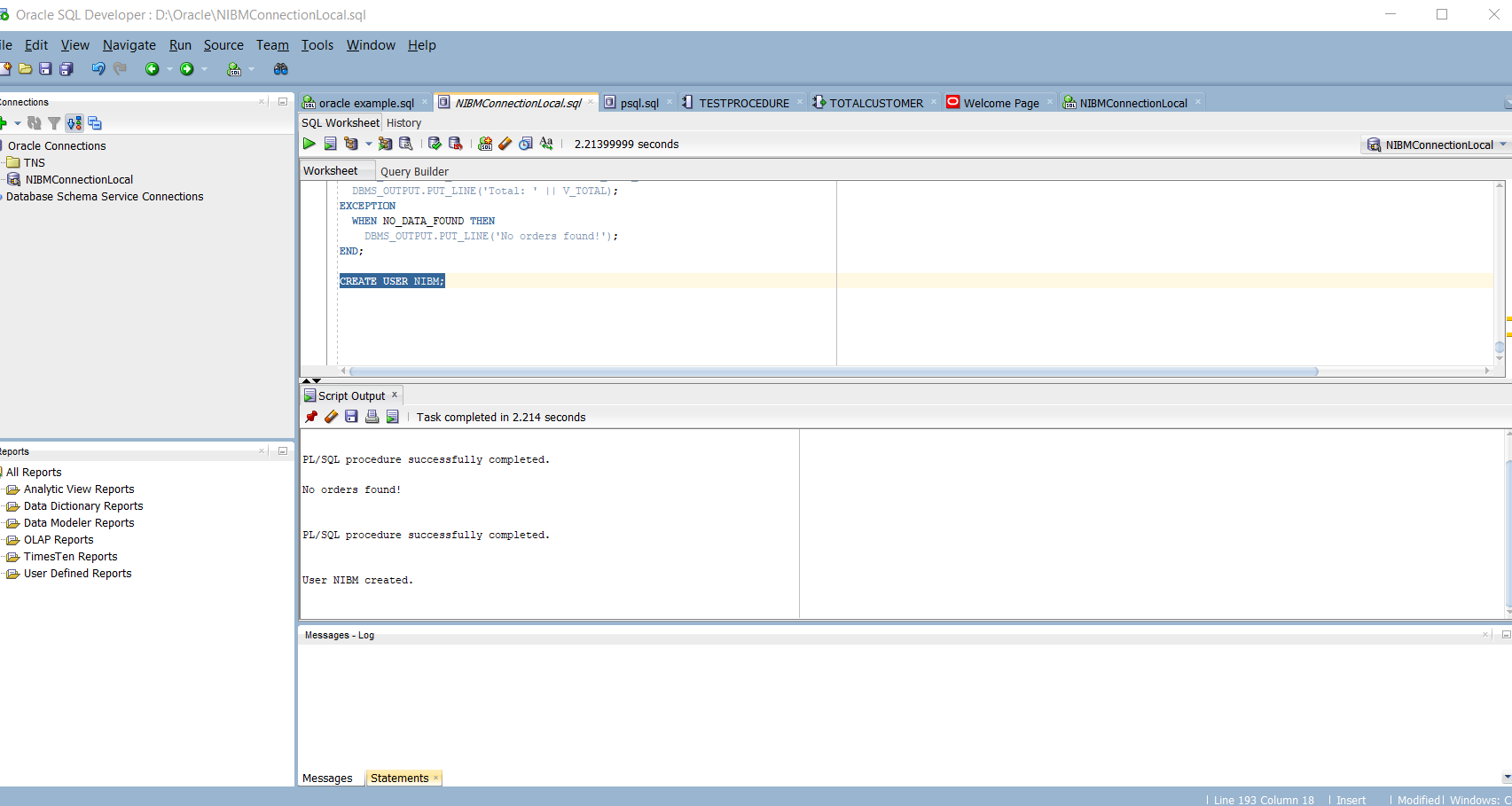
Q2.

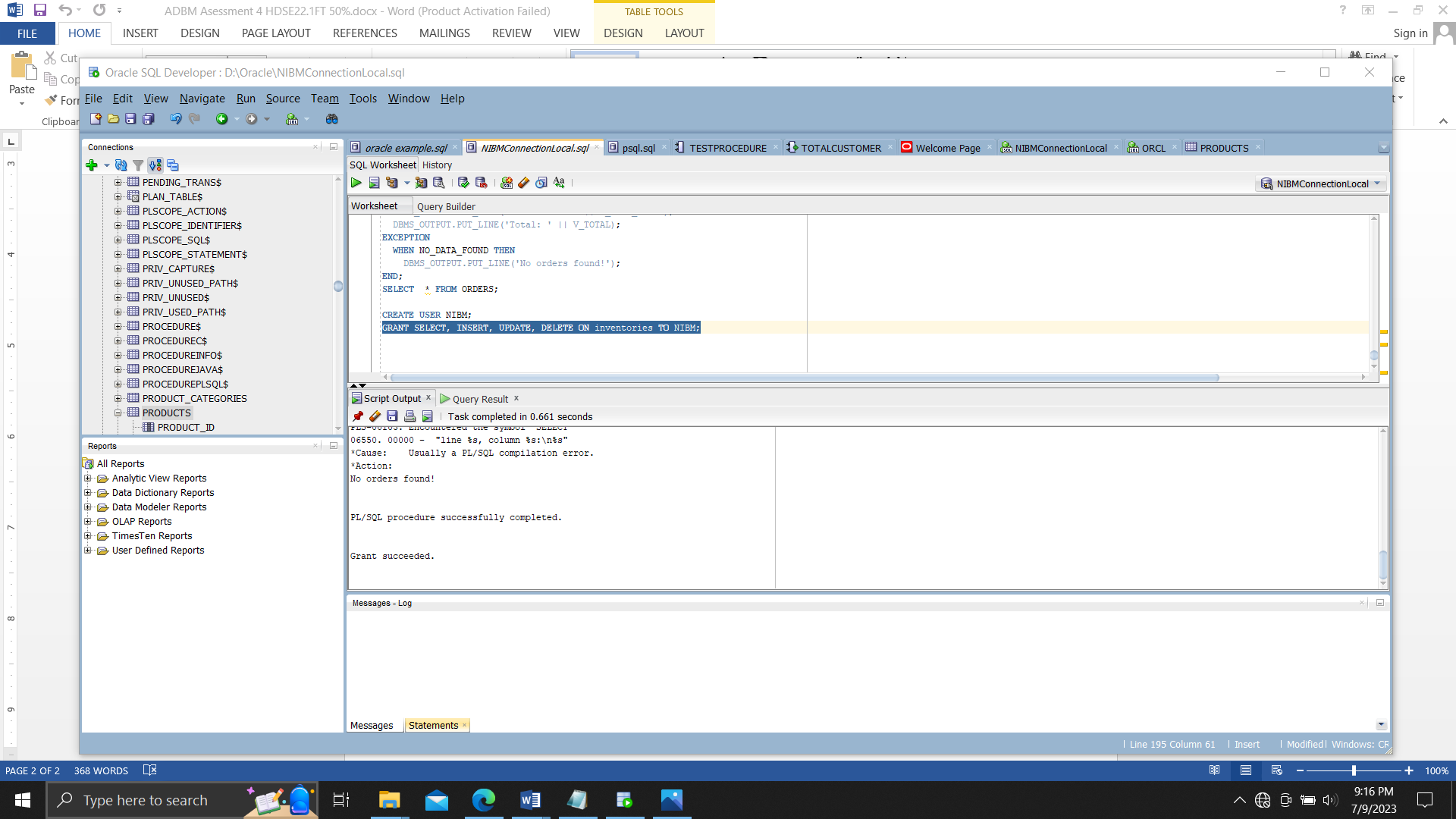


Q3



Q4





SET SERVEROUTPUT ON

CREATE TABLE CUSTOMERS(

CUSTOMER\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

NAME VARCHAR (180) NOT NULL,

ADDRESS VARCHAR (200) NOT NULL,

WEBSITE VARCHAR (100) NOT NULL,

CREDIT\_LIMIT NUMBER (19,3) NOT NULL

);

INSERT INTO CUSTOMERS (CUSTOMER\_ID, NAME, ADDRESS, WEBSITE, CREDIT\_LIMIT) VALUES ('CUS01', 'THARU', 'MATARA', 'www.tharu@gmail.com', 300000.00);

INSERT INTO CUSTOMERS (CUSTOMER\_ID, NAME, ADDRESS, WEBSITE, CREDIT\_LIMIT) VALUES ('CUS02', 'NETHU', 'GALLE', 'www.nethu@gmail.com', 200000.00);

CREATE TABLE CONTACTS (

CONTACT\_ID VARCHAR (60) PRIMARY KEY NOT NULL,

FIRST\_NAME VARCHAR (200) NOT NULL,

LAST\_NAME VARCHAR (200) NOT NULL,

EMAIL VARCHAR (100) NOT NULL,

PHONE INT NOT NULL,

CUSTOMER\_ID VARCHAR (20) NOT NULL,

FOREIGN KEY(CUSTOMER\_ID) REFERENCES CUSTOMERS(CUSTOMER\_ID)

);

INSERT INTO CONTACTS (CONTACT\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, PHONE, CUSTOMER\_ID) VALUES ('CONTACT01', 'SHAINI', 'ALWIS', 'shaini@gmail.com', 0773622766, 'CUS01');

INSERT INTO CONTACTS (CONTACT\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, PHONE, CUSTOMER\_ID) VALUES ('CONTACT02', 'NIMALI', 'PERERA', 'nimal@gmail.com', 0913913213, 'CUS02');

CREATE TABLE EMPLOYEES (

EMPLOYEE\_ID VARCHAR (30) PRIMARY KEY NOT NULL,

FIRST\_NAME VARCHAR (200) NOT NULL,

LAST\_NAME VARCHAR (200) NOT NULL,

EMAIL VARCHAR (100) NOT NULL,

PHONE INT NOT NULL,

HIRE\_DATE DATE NOT NULL,

MANAGER\_ID VARCHAR (20) NOT NULL,

JOB\_TITLE VARCHAR (40) NOT NULL,

FOREIGN KEY(MANAGER\_ID) REFERENCES EMPLOYEES(EMPLOYEE\_ID)

);

INSERT INTO EMPLOYEES (EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, PHONE, HIRE\_DATE, MANAGER\_ID, JOB\_TITLE) VALUES ('EMP01', 'SUNIMAL', 'DIAS', 'sunimal@gmail.com', 076543567, DATE '2020-07-20', 'EMP01', 'ACCOUNTANT');

INSERT INTO EMPLOYEES (EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, PHONE, HIRE\_DATE, MANAGER\_ID, JOB\_TITLE) VALUES ('EMP02', 'KAMAL', 'BANDARA', 'kamal@gmail.com', 070985432, DATE '2019-01-30', 'EMP02', 'CEO');

CREATE TABLE ORDERS (

ORDER\_ID VARCHAR (60) PRIMARY KEY NOT NULL,

CUSTOMER\_ID VARCHAR (20) NOT NULL,

STATUS VARCHAR (50) NOT NULL,

SALESMAN\_ID VARCHAR (40) NOT NULL,

ORDER\_DATE DATE NOT NULL,

FOREIGN KEY(CUSTOMER\_ID) REFERENCES CUSTOMERS(CUSTOMER\_ID),

FOREIGN KEY(SALESMAN\_ID) REFERENCES EMPLOYEES(EMPLOYEE\_ID)

);

INSERT INTO ORDERS (ORDER\_ID, CUSTOMER\_ID, STATUS, SALESMAN\_ID, ORDER\_DATE)VALUES ('ORDER01', 'CUS01', 'AVAILABLE', 'EMP02', DATE '2015-09-08');

INSERT INTO ORDERS (ORDER\_ID, CUSTOMER\_ID, STATUS, SALESMAN\_ID, ORDER\_DATE)VALUES ('ORDER02', 'CUS02', 'NOTAVAILABLE', 'EMP01', DATE '2023-09-08');

INSERT INTO ORDERS (ORDER\_ID, CUSTOMER\_ID, STATUS, SALESMAN\_ID, ORDER\_DATE)VALUES ('ORDER03', 'CUS02', 'AVAILABLE', 'EMP01', DATE '2023-09-08');

CREATE TABLE PRODUCT\_CATEGORIES (

CATEGORY\_ID VARCHAR (60) NOT NULL PRIMARY KEY,

CATEGORY\_NAME VARCHAR (12) NOT NULL

);

INSERT INTO PRODUCT\_CATEGORIES (CATEGORY\_ID, CATEGORY\_NAME)VALUES ('PROCATAGORIES01', 'CPU');

INSERT INTO PRODUCT\_CATEGORIES (CATEGORY\_ID, CATEGORY\_NAME)VALUES ('PROCATAGORIES02', 'MOTHERBOARD');

CREATE TABLE PRODUCTS(

PRODUCT\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

PRODUCT\_NAME VARCHAR (70) NOT NULL,

DESCRIPTION VARCHAR (70) NOT NULL,

STANDARD\_COST NUMBER(38,0) NOT NULL,

LIST\_PRICE NUMBER(38,0) NOT NULL,

CATEGORY\_ID VARCHAR2(20) NOT NULL,

FOREIGN KEY(CATEGORY\_ID) REFERENCES PRODUCT\_CATEGORIES(CATEGORY\_ID)

);

INSERT INTO PRODUCTS (PRODUCT\_ID, PRODUCT\_NAME, DESCRIPTION, STANDARD\_COST, LIST\_PRICE, CATEGORY\_ID) VALUES ('PRO01', 'ASUS 11 GENERATION LAP', '11 GENERATION', 200000.00, 955000.00,'PROCATAGORIES01' );

INSERT INTO PRODUCTS (PRODUCT\_ID, PRODUCT\_NAME, DESCRIPTION, STANDARD\_COST, LIST\_PRICE, CATEGORY\_ID) VALUES ('PRO02', 'DELL 12 GENERATION LAP', '12 GENERATION', 350000.00, 860000.00, 'PROCATAGORIES02');

CREATE TABLE ORDER\_ITEM (

ITEM\_ID VARCHAR (20) NOT NULL PRIMARY KEY,

ORDER\_ID VARCHAR (60) NOT NULL ,

PRODUCT\_ID VARCHAR (20) NOT NULL,

QUANTITY INT NOT NULL,

UNIT\_PRICE NUMBER (10, 2) NOT NULL,

FOREIGN KEY(ORDER\_ID) REFERENCES ORDERS(ORDER\_ID),

FOREIGN KEY(PRODUCT\_ID) REFERENCES PRODUCTS(PRODUCT\_ID)

);

INSERT INTO ORDER\_ITEM (ITEM\_ID, ORDER\_ID, PRODUCT\_ID, QUANTITY, UNIT\_PRICE) VALUES ('ITEM01', 'ORDER01', 'PRO01', 5, 450000.00);

INSERT INTO ORDER\_ITEM (ITEM\_ID, ORDER\_ID, PRODUCT\_ID, QUANTITY, UNIT\_PRICE) VALUES ('ITEM02', 'ORDER02', 'PRO02', 4, 900000.00);

INSERT INTO ORDER\_ITEM (ITEM\_ID, ORDER\_ID, PRODUCT\_ID, QUANTITY, UNIT\_PRICE) VALUES ('ITEM03', 'ORDER03', 'PRO01', 15, 850000.00);

CREATE TABLE REGIONS (

REGION\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

REGION\_NAME VARCHAR (30) NOT NULL

);

INSERT INTO REGIONS (REGION\_ID, REGION\_NAME)VALUES ('REGION01', 'AFFRICA ');

INSERT INTO REGIONS (REGION\_ID, REGION\_NAME)VALUES ('REGION02', 'ASIA');

CREATE TABLE COUNTRIES1 (

COUNTRY\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

COUNTRY\_NAME VARCHAR (30) NOT NULL,

REGION\_ID VARCHAR (20) NOT NULL,

FOREIGN KEY(REGION\_ID) REFERENCES REGIONS(REGION\_ID)

);

INSERT INTO COUNTRIES1 (COUNTRY\_ID, COUNTRY\_NAME, REGION\_ID)VALUES ('COUNTRY01', 'AMARICA', 'REGION01');

INSERT INTO COUNTRIES1 (COUNTRY\_ID, COUNTRY\_NAME, REGION\_ID)VALUES ('COUNTRY02', 'SRI LANKA', 'REGION02');

CREATE TABLE LOCATIONS (

LOCATION\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

ADDRESS VARCHAR (150) NOT NULL,

POSTAL\_CODE VARCHAR (15) NOT NULL,

CITY VARCHAR (20) NOT NULL,

STATE VARCHAR (20) NOT NULL,

COUNTRY\_ID VARCHAR (20) NOT NULL,

FOREIGN KEY(COUNTRY\_ID) REFERENCES COUNTRIES1(COUNTRY\_ID)

);

INSERT INTO LOCATIONS (LOCATION\_ID, ADDRESS, POSTAL\_CODE, CITY, STATE, COUNTRY\_ID) VALUES ('LOCATION01', ' NEAR THE HAMBANTOTA BUS STAND', '90876', 'HAMBANTHOTA', 'SOUTHERN', 'COUNTRY01');

INSERT INTO LOCATIONS (LOCATION\_ID, ADDRESS, POSTAL\_CODE, CITY, STATE, COUNTRY\_ID) VALUES ('LOCATION02', 'NEAR THE GALLERAILWAY STATION', '98765', 'GALLE', 'SOUTHERN', 'COUNTRY02');

CREATE TABLE WAREHOUSES (

WAREHOUSE\_ID VARCHAR (20) PRIMARY KEY NOT NULL,

WAREHOUSE\_NAME VARCHAR (20) NOT NULL,

LOCATION\_ID VARCHAR (20) NOT NULL,

FOREIGN KEY(LOCATION\_ID) REFERENCES LOCATIONS(LOCATION\_ID)

);

INSERT INTO WAREHOUSES (WAREHOUSE\_ID, WAREHOUSE\_NAME, LOCATION\_ID)VALUES ('WH01', 'LOCAL ', 'LOCATION01');

INSERT INTO WAREHOUSES (WAREHOUSE\_ID, WAREHOUSE\_NAME, LOCATION\_ID)VALUES ('WH02', 'CLOUD', 'LOCATION02');

CREATE TABLE INVENTORIES (

PRODUCT\_ID VARCHAR (20) NOT NULL,

WAREHOUSE\_ID VARCHAR (20) NOT NULL,

QUANTITY INT NOT NULL,

PRIMARY KEY(PRODUCT\_ID,WAREHOUSE\_ID),

FOREIGN KEY(PRODUCT\_ID) REFERENCES PRODUCTS(PRODUCT\_ID),

FOREIGN KEY(WAREHOUSE\_ID) REFERENCES WAREHOUSES(WAREHOUSE\_ID)

);

INSERT INTO INVENTORIES (PRODUCT\_ID, WAREHOUSE\_ID, QUANTITY)VALUES ('PRO01', 'WH01', 01);

INSERT INTO INVENTORIES (PRODUCT\_ID, WAREHOUSE\_ID, QUANTITY)VALUES ('PRO02', 'WH02', 09);

CREATE VIEW EMPLOYEE\_VIEW AS

SELECT

EMPLOYEE\_ID AS EMPLOYEE\_ID,

FIRST\_NAME || ' ' || LAST\_NAME AS EMPLOYEE\_FULL\_NAME,

TRUNC (MONTHS\_BETWEEN (SYSDATE, HIRE\_DATE) / 12,0) AS YEARS\_OF\_SERVICE

FROM

EMPLOYEES;

SELECT \* FROM EMPLOYEE\_VIEW;

CREATE VIEW ORDERS\_VIEW AS

SELECT

P. PRODUCT\_NAME,

EXTRACT (YEAR FROM O. ORDER\_DATE) AS "Year",

SUM (OI. QUANTITY \* OI. UNIT\_PRICE) AS "Total Amount"

FROM

ORDERS O

JOIN ORDER\_ITEM OI ON O. ORDER\_ID = OI. ORDER\_ID

JOIN PRODUCTS P ON OI. PRODUCT\_ID = P. PRODUCT\_ID

WHERE

O. STATUS = 'AVAILABLE'

GROUP BY

P. PRODUCT\_NAME,

EXTRACT (YEAR FROM O. ORDER\_DATE);

SELECT \* FROM ORDERS\_VIEW;

DECLARE

V\_ORDER\_ID VARCHAR2(20);

V\_ITEM\_COUNT INT;

V\_TOTAL NUMBER(10, 2);

BEGIN

SELECT

O.ORDER\_ID,

COUNT(OI.ITEM\_ID) AS "Item Count",

SUM(OI.QUANTITY \* OI.UNIT\_PRICE) AS "Total"

INTO

V\_ORDER\_ID,

V\_ITEM\_COUNT,

V\_TOTAL

FROM

ORDERS O

JOIN ORDER\_ITEM OI ON O.ORDER\_ID = OI.ORDER\_ID

GROUP BY

O.ORDER\_ID

HAVING

SUM(OI.QUANTITY \* OI.UNIT\_PRICE) > 500000

AND COUNT(OI.ITEM\_ID) BETWEEN 10 AND 12

ORDER BY

"Total" DESC, "Item Count";

DBMS\_OUTPUT.PUT\_LINE('Order ID: ' || V\_ORDER\_ID);

DBMS\_OUTPUT.PUT\_LINE('Item Count: ' || V\_ITEM\_COUNT);

DBMS\_OUTPUT.PUT\_LINE('Total: ' || V\_TOTAL);

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('No orders found!');

END;

CREATE USER NIBM;

GRANT SELECT, INSERT, UPDATE, DELETE ON inventories TO NIBM;