**ORA725 Assignment2**

Due on Wednesday, December 20th 1pm

# 

Student Assignment Submission Form

I/we declare that the attached assignment is my/our own work in accordance with the Seneca Academic Policy. No part of this assignment has been copied manually or electronically from any other source (including web sites) **or distributed to other students**

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Name(s) Student ID(s) Signature

1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.Table Instance Charts for the 6 Tables mentioned below in the Group

**Group1** Tables:

Orders, Payment, Recording, Order\_Line, Record\_Hist and Sales\_Rep

**Unique** constraints:

* LabelName and URL in table LABEL
* RegionName in table REGION
* CategoryDesc in table CATEGORY
* Email in table CUSTOMER
* Email in table SALES\_REP
* PhoneNum in table SALES\_REP

**Check** constraints:

* QtyInStock in table RECORDING and Qty in ORDER\_LINE are non-negative integers
* SellPrice in table RECORDING, ActPrice in ORDER\_LINE and Price in table RECORD\_HIST are positive decimals
* CardType in table PAYMENT must belong to the set of values {A, D, M, V}

# **Orders**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column | Order Id | Order Date | Order Total | Customer Id |
| Type | NUMBER(4) | DATE | NUMBER(8,2) | CHAR(4) |
| NN / U |  | NN | NN | NN |
| PK | PK |  |  | FK |
| Ref-Tab |  |  |  | Customer |
| PK-Ref |  |  |  | Customer Id |
| Check |  |  | >0 |  |

# **Payment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Column | OrderId | Cardholder | ExpDate | CardType | CardNum |
| Type |  |  | Date |  |  |
| NN / U | NN | NN | NN | NN | NN |
| PK | FK |  |  |  |  |
| Ref-Tab | ORDERS |  |  |  |  |
| PK-Ref | OrderId |  |  |  |  |
| Check |  |  |  | {A,D,M,V} |  |

# **Order\_Line**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Column | LINE | ORDER ID | OTY | ACTUAL PRICE | Recording ID |
| Type | NUMBER(3) | NUMBER(4) | NUMBER(4) | NUMBER(6,2) | CHAR(4) |
| NN / U |  | NN |  |  | NN |
| PK | PK | PK,FK |  |  | FK |
| Ref-Tab |  | ORDERS |  |  | Recording |
| PK-Ref |  |  |  |  | Recording ID |
| Check |  |  | >=0 | >0.0 |  |
|  |  |  |  |  |  |

# **Recording**

|  |  |  |  |
| --- | --- | --- | --- |
| Column | RecordingId | Title | Artist |
| Type | CHAR(4) | VARCHAR2(30) | VARCHAR2(20) |
| NN / U |  |  |  |
| PK | PK |  |  |
| Ref-Tab |  |  |  |
| PK-Ref |  |  |  |
| Check |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column | SellPrice | QtyInstock | CategoryId | LabelId |
| Type | NUMBER(8,2) | NUMBER(4) | CHAR(4) | CHAR(4) |
| NN / U |  |  |  |  |
| PK |  |  | FK | FK |
| Ref-Tab |  |  | CATEGORY | LABEL |
| PK-Ref |  |  | Category\_Id | Label\_Id |
| Check | >0 | >=0 |  |  |

# **Record\_ Hist**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Column | PriceId |  | Recording ID | Price | Start Date |
| Type | CHAR(4) |  | CHAR(4) | NUMBER(10,2) | DATE |
| NN / U |  |  | NN | NN | NN |
| PK | PK |  | FK |  |  |
| Ref-Tab |  |  | Recording |  |  |
| PK-Ref |  |  | Recording ID |  |  |
| Check |  |  |  | >0.0 |  |

# **Sales\_rep**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column | Rep No | Lastname | FirstName | Phone No |
| Type | CHAR(5) | VARCHAR(20) | VARCHAR(20) | NUMBER(10) |
| NN / U |  | NN |  | U |
| PK | PK |  |  |  |
| Ref-Tab |  |  |  |  |
| PK-Ref |  |  |  |  |
| Check |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column | Phone No | Email | Region Id | Label Id |
| Type | NUMBER(10) | VARCHAR(30) | CHAR(5) | CHAR(4) |
| NN / U | U | U | NN | NN |
| PK |  |  | FK1 | FK2 |
| Ref-Tab |  |  | REGION | LABEL |
| PK-Ref |  |  | Region Id | Label Id |
| Check |  |  |  |  |

2.DDL scripts for creation of all 10 Tables from the Final ERD

# **Orders**

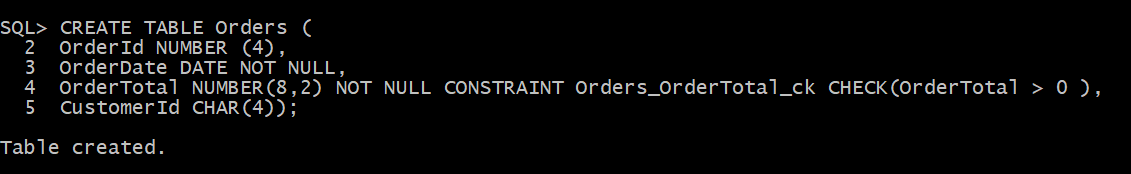
**CREATE TABLE Orders (**

**OrderId NUMBER (4),**

**OrderDate DATE NOT NULL,**

**OrderTotal NUMBER(8,2) NOT NULL CONSTRAINT Orders\_OrderTotal\_ck CHECK(OrderTotal > 0 ),**

**CustomerId CHAR(4));**

****

# **Order\_Line**

**CREATE TABLE Order\_Line (**

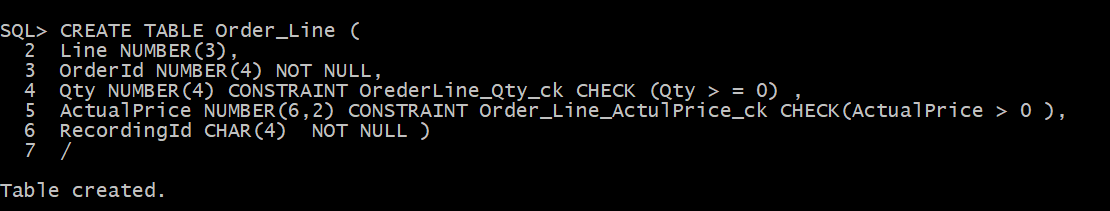
**Line NUMBER(3),**

**OrderId NUMBER(4) NOT NULL,**

**Qty NUMBER(4) CONSTRAINT OrederLine\_Qty\_ck CHECK (Qty > = 0) ,**

**ActualPrice NUMBER(6,2) CONSTRAINT Order\_Line\_ActulPrice\_ck CHECK(ActualPrice > 0 ),**

**RecordingId CHAR(4) NOT NULL )**

****

# **Payment**

**CREATE TABLE Payment (**

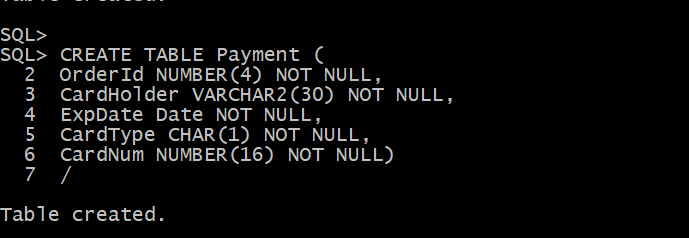
**OrderId NUMBER(4) NOT NULL,**

**CardHolder VARCHAR2(30) NOT NULL,**

**ExpDate Date NOT NULL,**

**CardType CHAR(1) NOT NULL,**

**CardNum NUMBER(16) NOT NULL)**

****

# **Customer**

**CREATE TABLE Customer (**

**CustomerId CHAR(5),**

**LastName VARCHAR(20),**

**FirstName VARCHAR(20) NOT NULL ,**

**DOB DATE,**

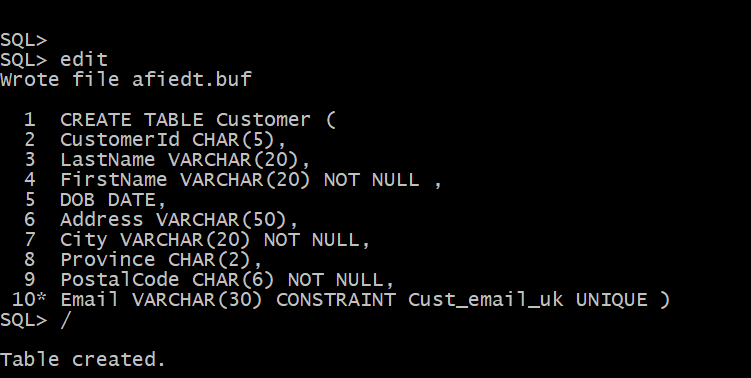
**Address VARCHAR(50),**

**City VARCHAR(20) NOT NULL,**

**Province CHAR(2),**

**Postal Code CHAR(6) NOT NULL,**

**Email VARCHAR(30) CONSTRAINT Cust\_email\_uk UNIQUE );**

****

# **Region**

**create Table Region(**

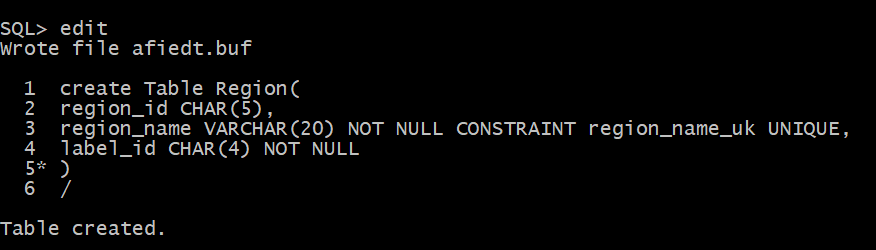
**region\_id char(5),**

**region\_name varchar(20) NOT NULL constraint region\_name\_uk UNIQUE,**

**label\_id CHAR(4) NOT NULL**

**)**

**/**

****

# **Category**

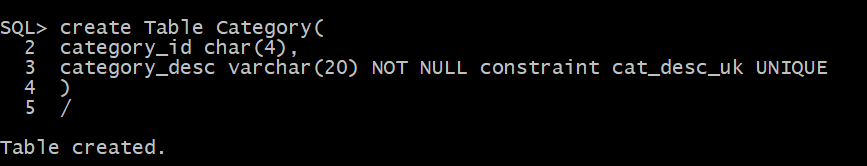
**create Table Category(**

**category\_id char(4),**

**category\_desc varchar(20) NOT NULL constraint cat\_desc\_uk UNIQUE**

**)**

**/**

****

# **Label**

**create Table Label(**

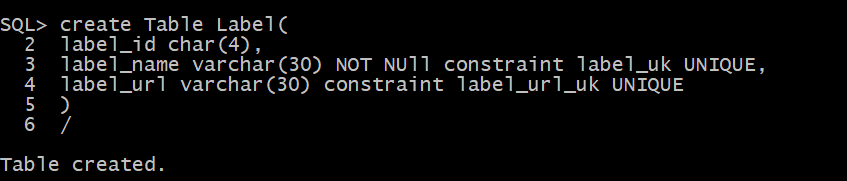
**label\_id char(4),**

**label\_name varchar(30) NOT NUll constraint label\_uk UNIQUE,**

**label\_url varchar(30) constraint label\_url\_uk UNIQUE**

**)**

**/**

****

# **Sales\_rep**

**CREATE TABLE sales\_rep(**

**repno CHAR(5),**

**lastname VARCHAR(20) NOT NULL,**

**firstname VARCHAR(20),**

**phoneno NUMBER(10) CONSTRAINT salesrep\_phone\_uk UNIQUE,**

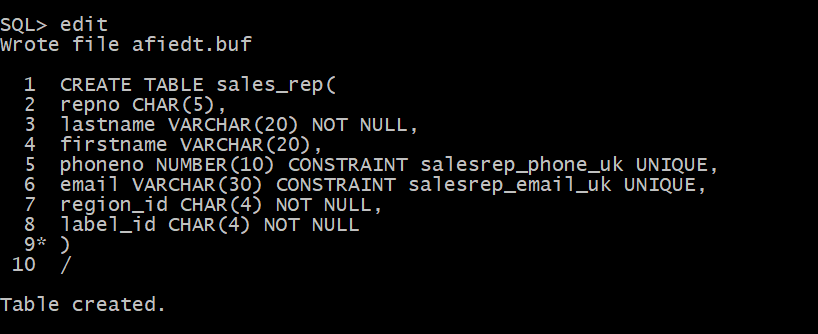
**email VARCHAR(30) CONSTRAINT salesrep\_email\_uk UNIQUE,**

**region\_id CHAR(4) NOT NULL,**

**label\_id CHAR(4) NOT NULL**

**)**

**/**



# **Recording**

**CREATE TABLE recording(**

**recording\_id NUMBER(6),**

**title VARCHAR2(30),**

**artist VARCHAR2(20),**

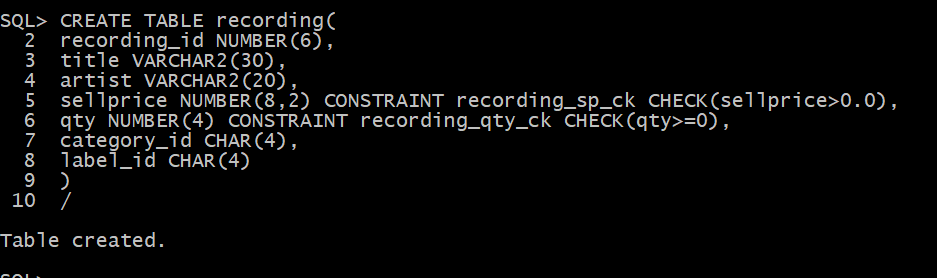
**sellprice NUMBER(8,2) CONSTRAINT recording\_sp\_ck CHECK(sellprice>0.0),**

**qty NUMBER(4) CONSTRAINT recording\_qty\_ck CHECK(qty>=0),**

**category\_id CHAR(4),**

**label\_id CHAR(4)**

**)**



# **Record\_hist**

**CREATE TABLE record\_hist(**

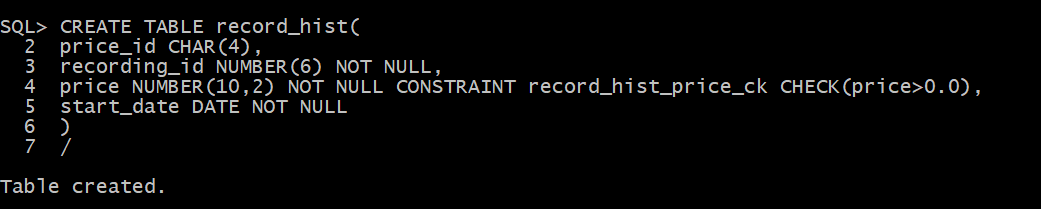
**price\_id CHAR(4),**

**recording\_id NUMBER(6) NOT NULL,**

**price NUMBER(10,2) NOT NULL CONSTRAINT record\_hist\_price\_ck CHECK(price>0.0),**

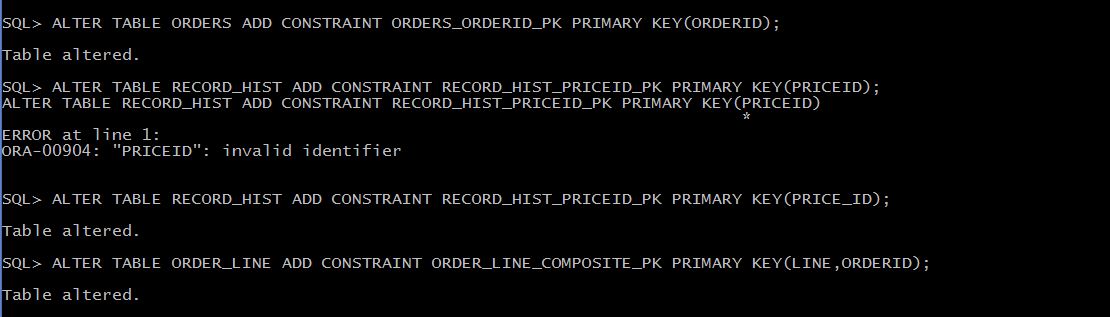
**start\_date DATE NOT NULL**

**)**



3. PK,FK constraints with ALTER TABLE statements

**ADDING PRIMARY KEYS**

****

**SQL> ALTER TABLE ORDERS ADD CONSTRAINT ORDERS\_ORDERID\_PK PRIMARY KEY (ORDERID);**

**SQL> ALTER TABLE RECORD\_HIST ADD CONSTRAINT RECORD\_HIST\_PRICEID\_PK PRIMARY KEY (PRICE\_ID)**

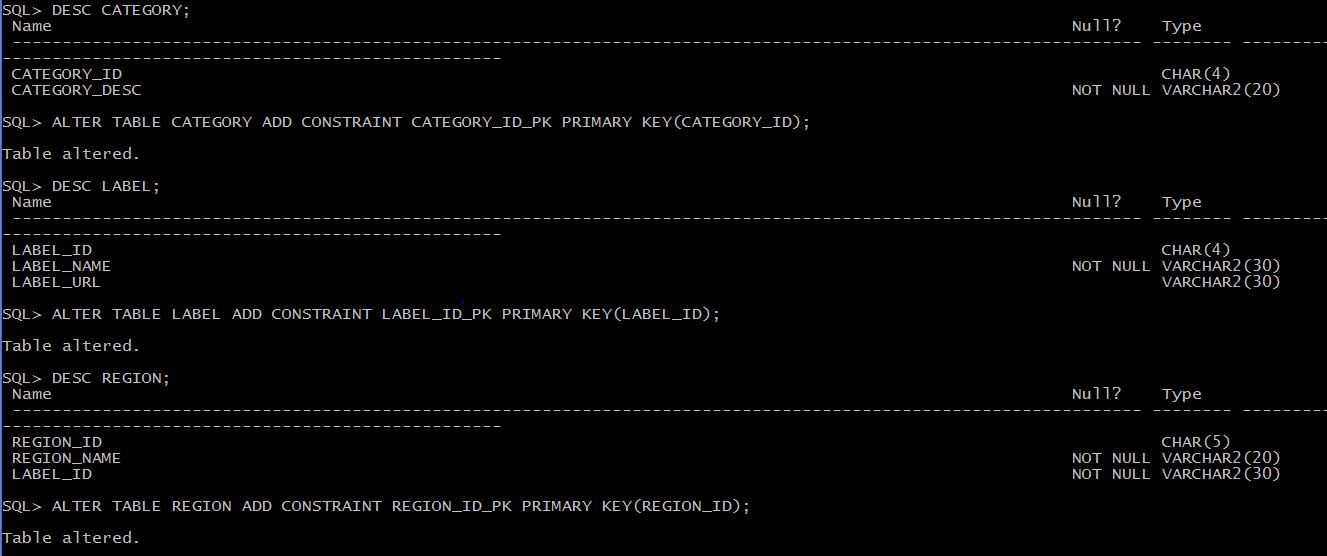
**SQL> ALTER TABLE ORDER\_LINE ADD CONSTRAINT ORDER\_LINE\_COMPOSITE\_PK PRIMARY KEY (LINE,ORDERID);**

****

**SQL> ALTER TABLE RECORDING ADD CONSTRAINT RECORDING\_ID\_PK PRIMARY KEY (RECORDING\_ID);**

**SQL> ALTER TABLE SALES\_REP ADD CONSTRAINT SALES\_REPNO\_PK PRIMARY KEY (REPNO);**

**SQL> ALTER TABLE CUSTOMER ADD CONSTRAINT CUSTOMER\_ID\_PK PRIMARY KEY (CUSTOMERID);**

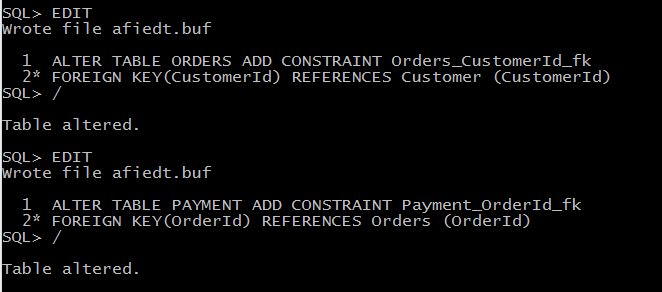
****

**SQL> ALTER TABLE CATEGORY ADD CONSTRAINT CATEGORY\_ID\_PK PRIMARY KEY (CATEGORY\_ID);**

**SQL> ALTER TABLE LABEL ADD CONSTRAINT LABEL\_ID\_PK PRIMARY KEY (LABEL\_ID);**

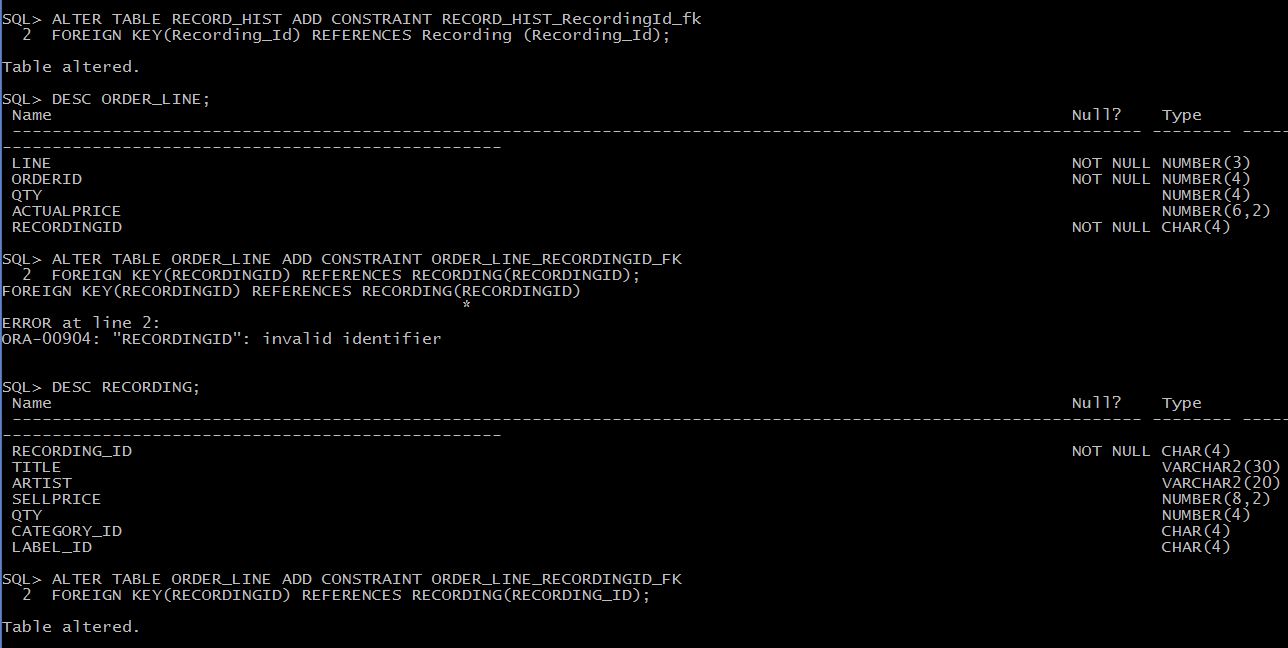
**SQL> ALTER TABLE REGION ADD CONSTRAINT REGION\_ID\_PK PRIMARY KEY (REGION\_ID);**

**ADDING FOREIGN KEYS**

****

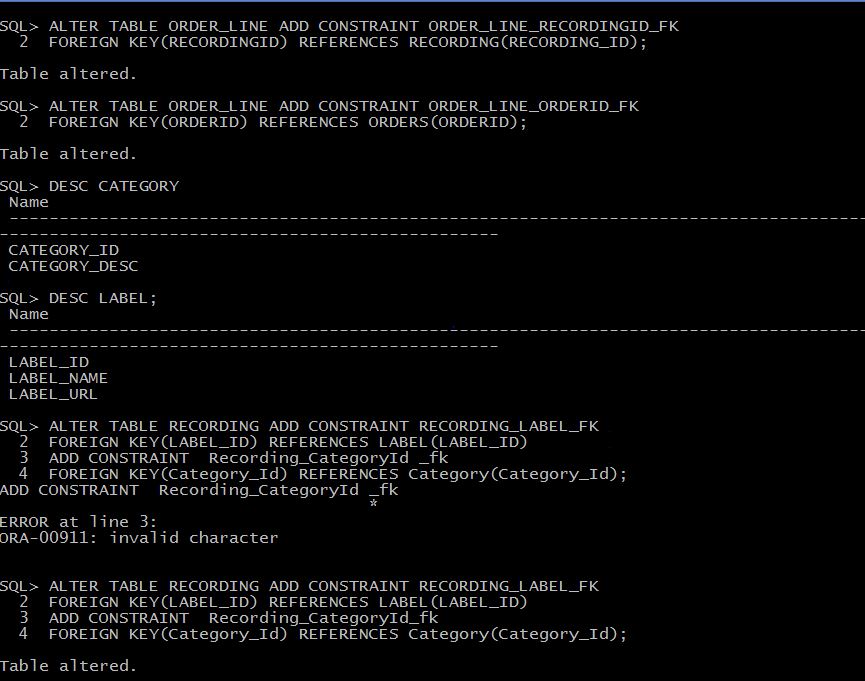
**SQL> ALTER TABLE ORDERS ADD CONSTRAINT ORDERS\_CUSTOMER\_ID\_FK FOREIGN KEY(CUSTOMERID) REFERENCES CUSTOMER (CUSTOMERID);**

**SQL> ALTER TABLE PAYMENT ADD CONSTRAINT PAYMENT\_ORDERID\_FK FOREIGN KEY(ORDERID) REFERENCES ORDERS (ORDERID)**

****

**SQL> ALTER TABLE RECORD\_HIST ADD CONSTRAINT RECORD\_HIST\_RECORDINGID\_FK FOREIGN KEY(RECORDING\_ID) REFERENCES RECORDING (RECORDING\_ID);**

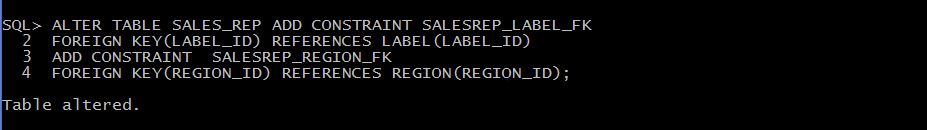
**SQL> ALTER TABLE ORDER\_LINE ADD CONSTRAINT ORDER\_LINE\_RECORDINGID\_FK FOREIGN KEY(RECORDINGID) REFERENCES RECORDING(RECORDING\_ID);**

****

**SQL> ALTER TABLE ORDER\_LINE ADD CONSTRAINT ORDER\_LINE\_RECORDINGID\_FK FOREIGN KEY(RECORDINGID) REFERENCES RECORDING(RECORDING\_ID);**

**SQL> ALTER TABLE ORDER\_LINE ADD CONSTRAINT ORDER\_LINE\_ORDERID\_FK FOREIGN KEY(ORDERID) REFERENCES ORDERS(ORDERID);**

**SQL> ALTER TABLE RECORDING ADD CONSTRAINT RECORDING\_LABEL\_FK FOREIGN KEY(LABEL\_ID) REFERENCES LABEL(LABEL\_ID) ADD CONSTRAINT RECORDING\_CATEGORYID\_FK FOREIGN KEY(CATEGORY\_ID) REFERENCES CATEGORY(CATEGORY\_ID);**

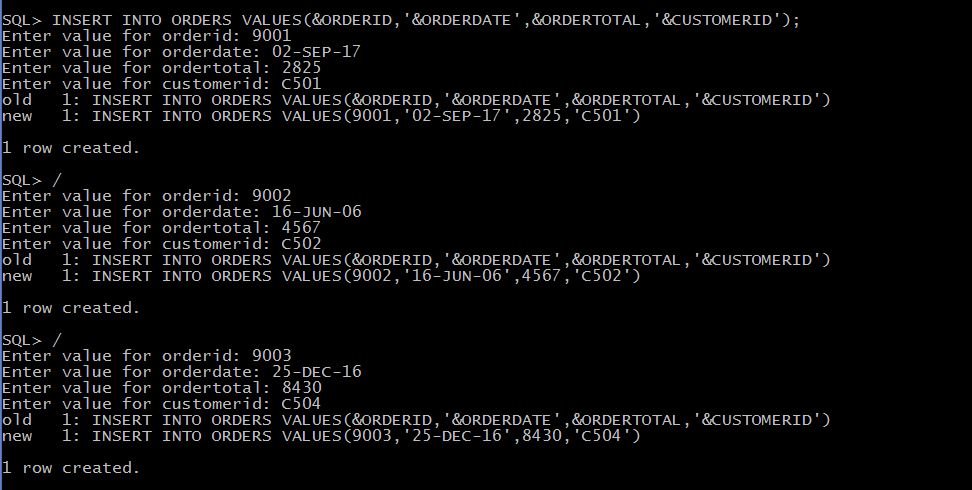
****

**SQL> ALTER TABLE SALES\_REP ADD CONSTRAINT SALESREP\_LABEL\_FK FOREIGN KEY(LABEL\_ID) REFERENCES LABEL(LABEL\_ID) ADD CONSTRAINT SALESREP\_REGION\_FK FOREIGN KEY(REGION\_ID) REFERENCES REGION(REGION\_ID);**

4.DML scripts for three rows of sample data for each table

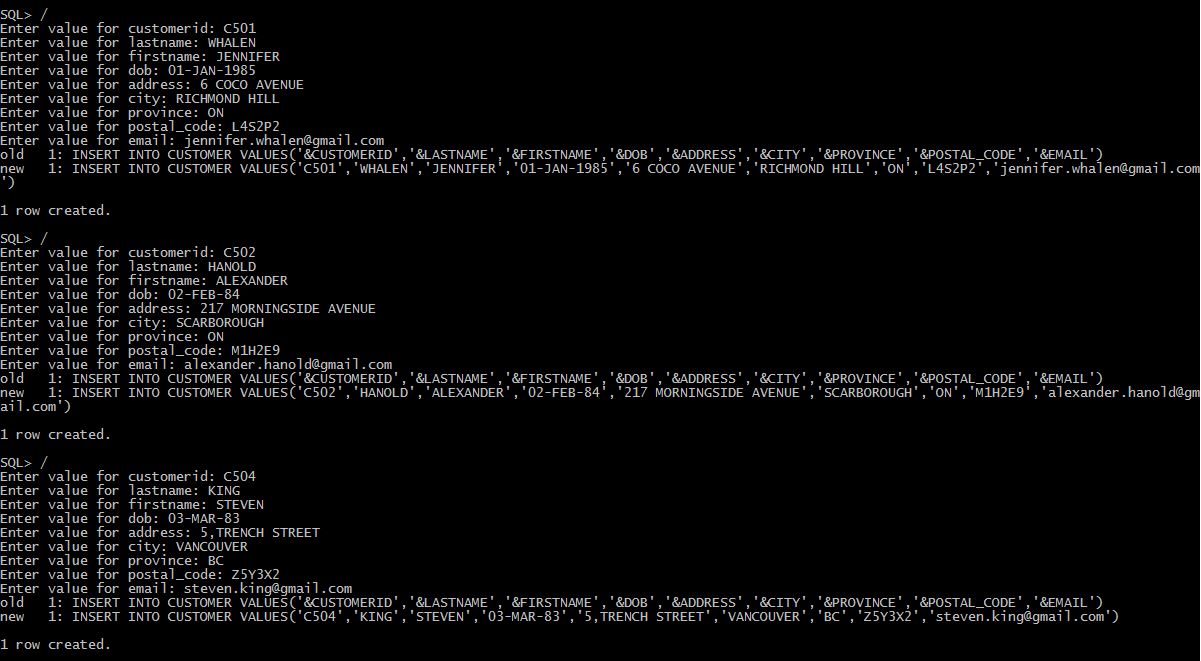
# **Oders**

**INSERT INTO ORDERS VALUES(&ordered,’&orderdate’,&ordertotal,&customerid’);**



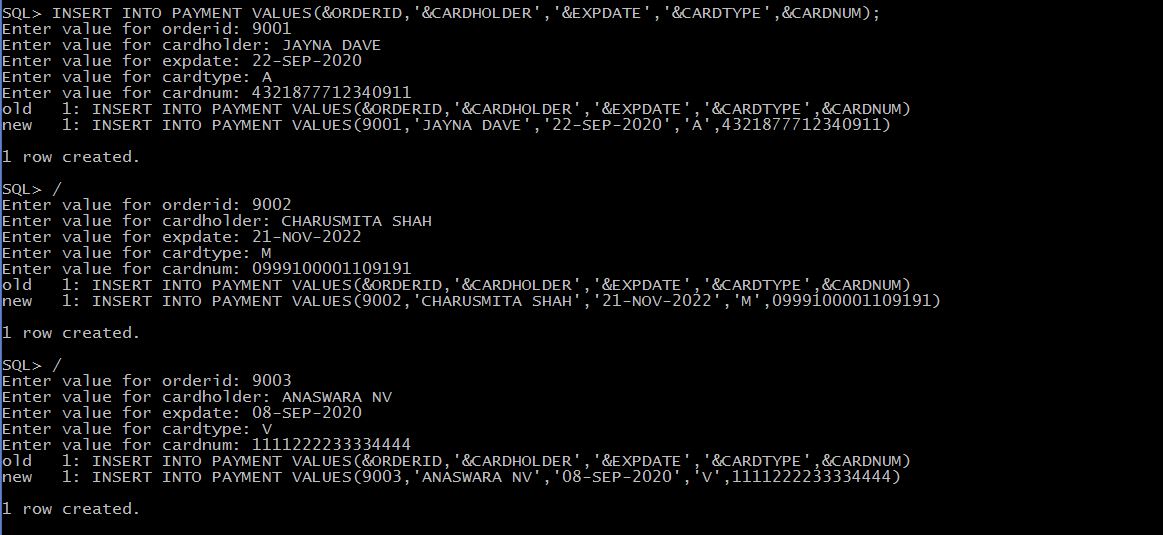
# **CUSTOMER**

**INSERT INTO CUSTOMER VALUES(‘&CUSTOMERID’, ‘LASTNAME’,&FIRSTNAME’,’&DOB’,’&ADDRESS’,’&PROVINCE’,’&POSTALCODE’,’&EMAIL’)**



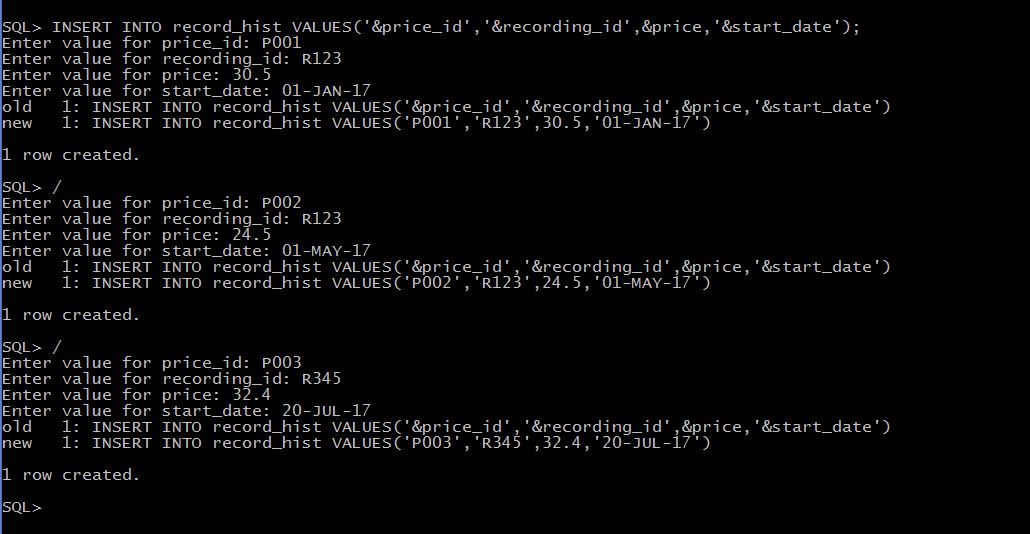
# **PAYMENT**

**INSERT INTO PAYMENT VALUES(&ORDERID,’&CARDHOLDER’,’&EXPDATE’,,’&CARDTYPE’,&CARDNUM);**



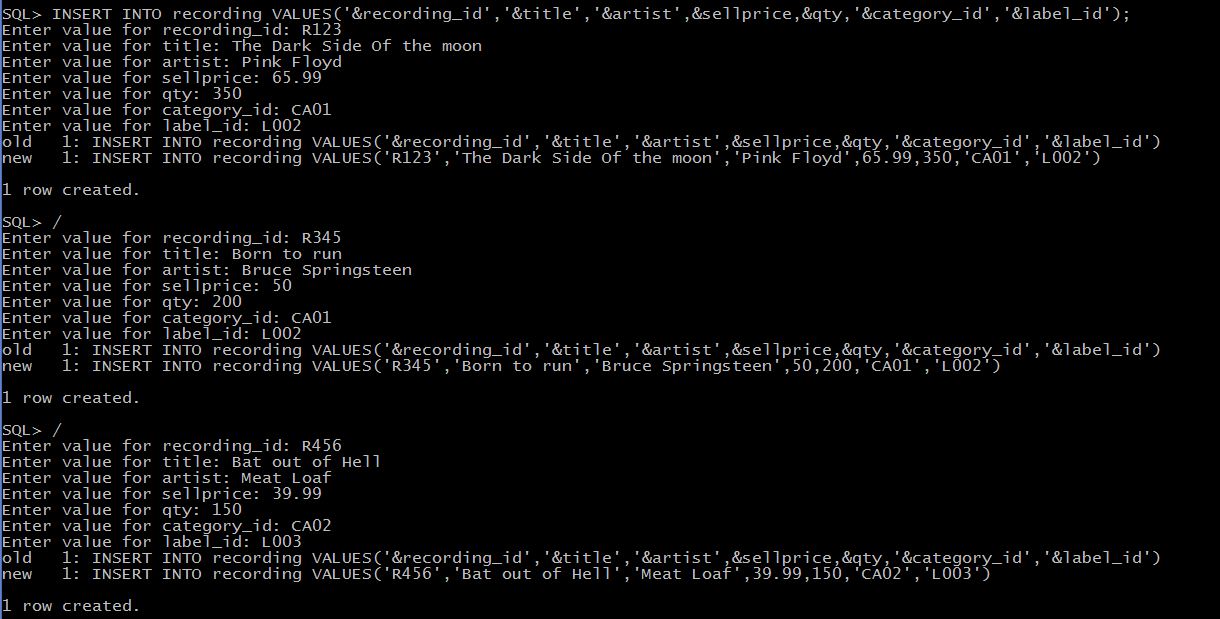
# **RECORD-HIST**

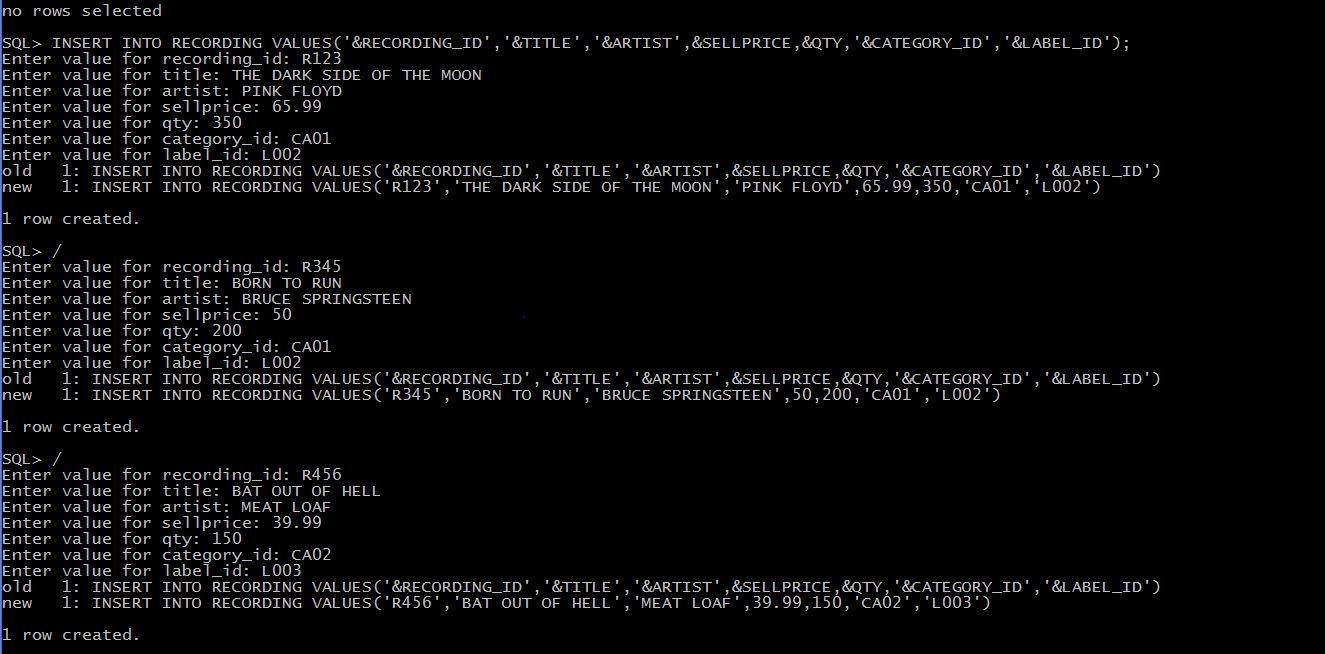
**INSERT INTO record-hist VALUES(‘&price\_id’,’&recording\_id’,’&price’,’&start\_date’);**



# **RECORDING**

**INSERT INTO Recording VALUES(‘&recording\_id’,’&title’,’&artist’,’&sellprice,&qty,’&category\_id’,’&label\_id)**

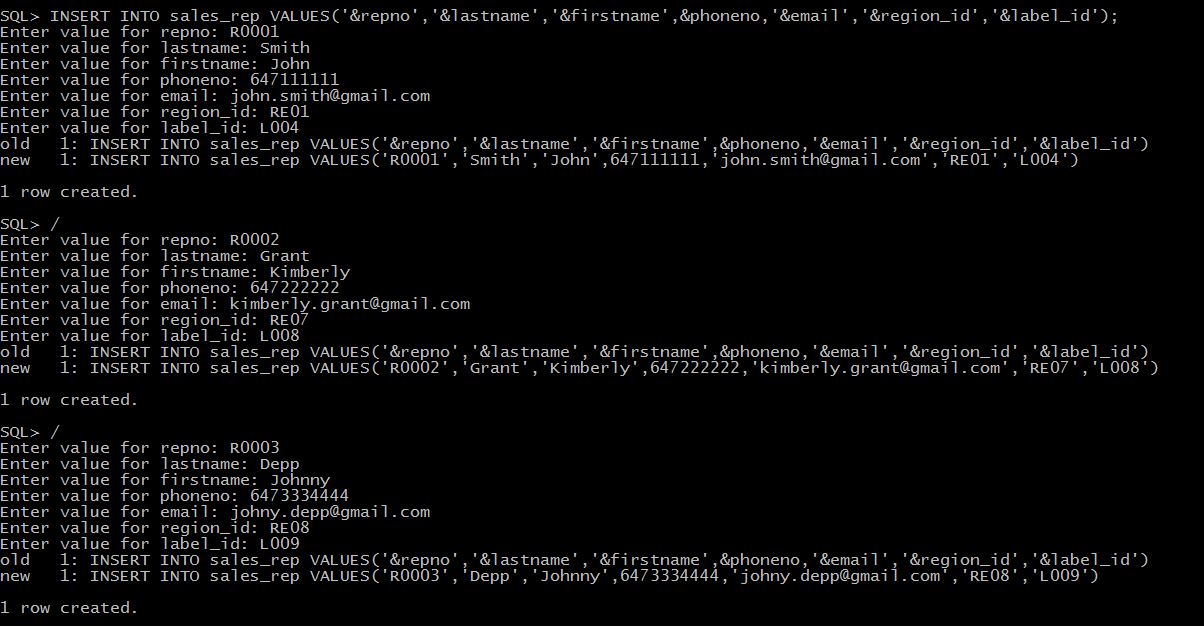




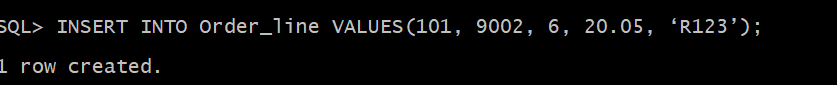
# **Sales\_rep**

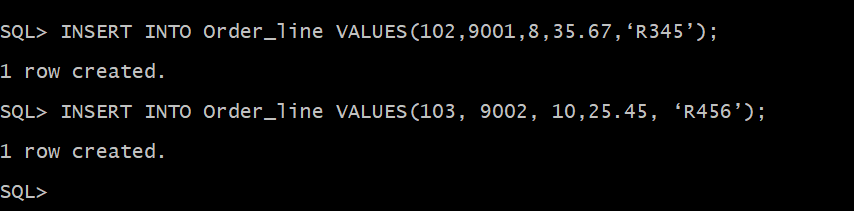
**INSERT INTO sales\_rep**

**VALUES(&repno,’&lastname’,&firstname’,&phoneno,’&email’,&rego\_id’,&label\_id);**

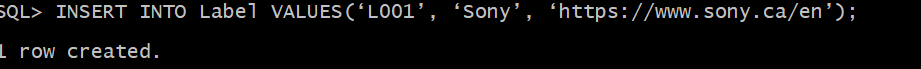


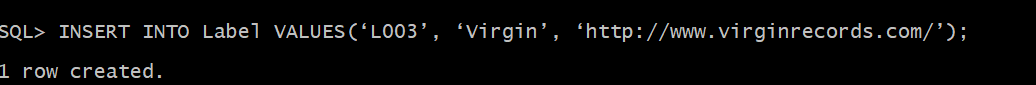
# **Order\_Line**

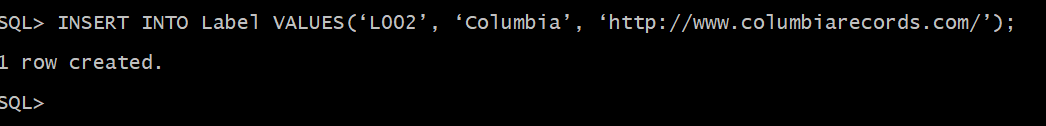




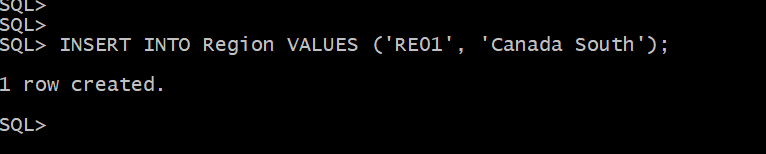
# **Label**

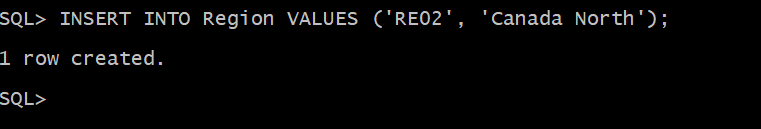


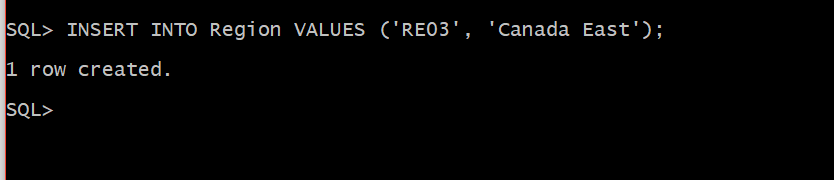




# **Region**







# **Category**

**INSERT INTO category VALUES ('&category\_id', '&category\_desc')**

**INSERT INTO category VALUES ('CA01, 'ALT ROCK’);**

**INSERT INTO category VALUES ('CA03, 'Jazz’);**

**INSERT INTO category VALUES ('CA02, 'Pop’);**

5.DDL script for creation of the complex VIEW (you will need to join 5 tables) called Cust\_Cat\_AR that will show customer’s last name, city and date of birth and also artist name and CD title, but only for category ‘Alt Rock’.

**CREATE OR REPLACE VIEW "Cust\_Cat\_AR" AS**

**SELECT c.lastname "Lastname",c.city "City",c.dob "Date Of Birth",r.artist "Artist",r.title "CD Title" FROM**

**customer c JOIN orders o**

**ON c.customerid=o.customerid**

**JOIN order\_line l ON l.orderid=o.orderid**

**JOIN recording r ON l.recordingid=r.recording\_id**

**JOIN category ca ON r.category\_id=ca.category\_id**

**WHERE UPPER(ca.category\_desc) IN ('ALT ROCK')**

**/**



6.Oracle account and password where these Tables are stored (so that I can check your Physical Solution).

Username: ORA725\_173a22

Password: knBB9985