**Lab Project**

**A Video Game Retailer Transaction Database**

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CSCI6441, Spring 2013

Submitted To

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**Statement of Work (SOW)**

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**Overview:**

This database is designed for video game retailer system to keep track of the stocks, rentals or orders of video games and membership program for gamers.

**Purpose and Objective:**

The database will enable the game retailer to list video games information of different platforms for keeping tracking with their release dates, stocks and prices. This will also house rental information such as renter’s name, credit card information, rental date and return date. This database will have information about customers, memberships, employees, video game information, benefits sold and rental information etc.

Database will have checks to keep information about the games and if any games’ stocks are of high value (say > 100) meanwhile they are out-dated (more than half a year). It will be creating for sale needs.

**Diagram Tool:**

Oracle SQL Developer Data Modeler Ver. 3.1.4.710

Platform Apple/MacOs 10.8.2

**Database:**

Oracle 11g.

**Hardware and Software:**

GWU server system

Operation system is MacOs.

Connect to Oracle via Oracle SQL Developer

**DDL and DML:**

SQL will be used for the DDL and DML.

Use Data Modeler to generate the DDL scripts from the physical data model.

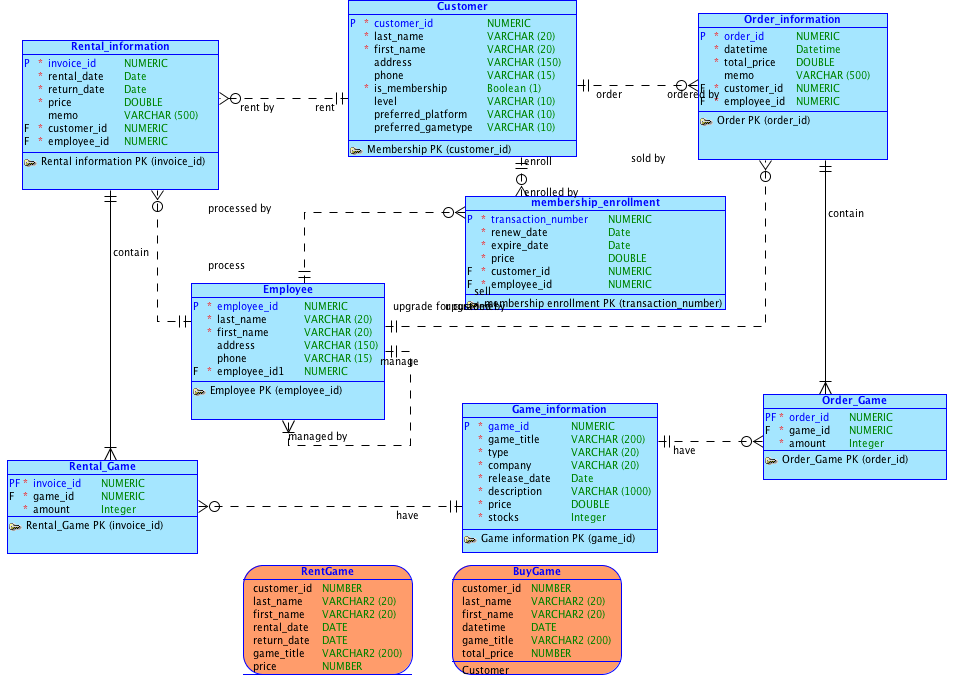
Use SQL Developer to generate the DDL scripts.

**Entity Relationship Diagram**

**Major Entities and their descriptions**

1. Customer: customer\_id, last\_name, first\_name, address, phone, is\_membership, level, preferred\_platform, preferred\_gametype.
2. Membership\_enrollment: transaction\_number, renew\_date, expire\_date, price, customer\_id, employee\_id.
3. Employee: employee\_id, last\_name, first\_name, address, phone, manager\_id.
4. Game\_information: game\_id, game\_title, type, company, release date, description, price, stocks.
5. Rental\_information: invoice\_id, rental\_date, return\_date, price, memo, customer\_id, employee\_id.
6. Rental\_game: invoice\_id, game\_id, amount.
7. Order\_information: order\_id, datetime, total price, memo, custom\_id, employee\_id.
8. Order\_game: order\_id, game\_id, amount.

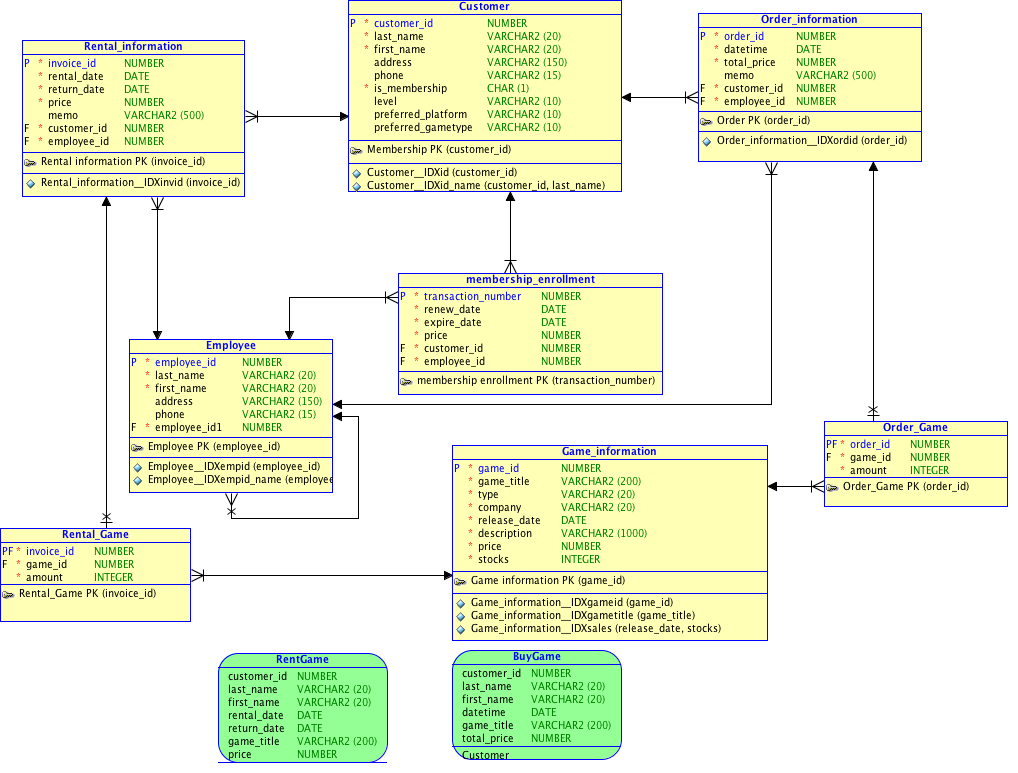
**Logical ERD**



PDF copy attached for better review



**Physical ERD**



PDF copy attached for better review



**DDL (Data Definition Language)**

-- Generated by Oracle SQL Developer Data Modeler 3.1.4.710

-- at: 2013-04-04 20:14:18 EDT

-- site: Oracle Database 11g

-- type: Oracle Database 11g

CREATE TABLE Customer

(

customer\_id NUMBER NOT NULL ,

last\_name VARCHAR2 (20) NOT NULL ,

first\_name VARCHAR2 (20) NOT NULL ,

address VARCHAR2 (150) ,

phone VARCHAR2 (15) ,

is\_membership CHAR (1) NOT NULL ,

"level" VARCHAR2 (10) ,

preferred\_platform VARCHAR2 (10) ,

preferred\_gametype VARCHAR2 (10)

)

;

CREATE INDEX Customer\_\_IDXid ON Customer

(

customer\_id ASC

)

;

CREATE INDEX Customer\_\_IDXid\_name ON Customer

(

customer\_id ASC ,

last\_name ASC

)

;

ALTER TABLE Customer

ADD CONSTRAINT "Membership PK" PRIMARY KEY ( customer\_id ) ;

CREATE TABLE Employee

(

employee\_id NUMBER NOT NULL ,

last\_name VARCHAR2 (20) NOT NULL ,

first\_name VARCHAR2 (20) NOT NULL ,

address VARCHAR2 (150) ,

phone VARCHAR2 (15) ,

employee\_id1 NUMBER NOT NULL

)

;

CREATE INDEX Employee\_\_IDXempid ON Employee

(

employee\_id ASC

)

;

CREATE INDEX Employee\_\_IDXempid\_name ON Employee

(

employee\_id ASC ,

last\_name ASC ,

first\_name ASC

)

;

ALTER TABLE Employee

ADD CONSTRAINT "Employee PK" PRIMARY KEY ( employee\_id ) ;

CREATE TABLE Game\_information

(

game\_id NUMBER NOT NULL ,

game\_title VARCHAR2 (200) NOT NULL ,

type VARCHAR2 (20) NOT NULL ,

company VARCHAR2 (20) NOT NULL ,

release\_date DATE NOT NULL ,

description VARCHAR2 (1000) NOT NULL ,

price NUMBER NOT NULL ,

stocks INTEGER NOT NULL

)

;

CREATE INDEX Game\_information\_\_IDXgameid ON Game\_information

(

game\_id ASC

)

;

CREATE INDEX Game\_information\_\_IDXgametitle ON Game\_information

(

game\_title ASC

)

;

CREATE INDEX Game\_information\_\_IDXsales ON Game\_information

(

release\_date ASC ,

stocks ASC

)

;

ALTER TABLE Game\_information

ADD CONSTRAINT "Game information PK" PRIMARY KEY ( game\_id ) ;

CREATE TABLE Order\_Game

(

order\_id NUMBER NOT NULL ,

game\_id NUMBER NOT NULL ,

amount INTEGER NOT NULL

)

;

ALTER TABLE Order\_Game

ADD CONSTRAINT "Order\_Game PK" PRIMARY KEY ( order\_id ) ;

CREATE TABLE Order\_information

(

order\_id NUMBER NOT NULL ,

datetime DATE NOT NULL ,

total\_price NUMBER NOT NULL ,

memo VARCHAR2 (500) ,

customer\_id NUMBER NOT NULL ,

employee\_id NUMBER NOT NULL

)

;

CREATE INDEX Order\_information\_\_IDXordid ON Order\_information

(

order\_id ASC

)

;

ALTER TABLE Order\_information

ADD CONSTRAINT "Order PK" PRIMARY KEY ( order\_id ) ;

CREATE TABLE Rental\_Game

(

invoice\_id NUMBER NOT NULL ,

game\_id NUMBER NOT NULL ,

amount INTEGER NOT NULL

)

;

ALTER TABLE Rental\_Game

ADD CONSTRAINT "Rental\_Game PK" PRIMARY KEY ( invoice\_id ) ;

CREATE TABLE Rental\_information

(

invoice\_id NUMBER NOT NULL ,

rental\_date DATE NOT NULL ,

return\_date DATE NOT NULL ,

price NUMBER NOT NULL ,

memo VARCHAR2 (500) ,

customer\_id NUMBER NOT NULL ,

employee\_id NUMBER NOT NULL

)

;

ALTER TABLE Rental\_information

ADD CONSTRAINT Rental\_information\_CKTIME

CHECK (datediff(dd, rental\_date, return\_date) < 90)

;

CREATE INDEX Rental\_information\_\_IDXinvid ON Rental\_information

(

invoice\_id ASC

)

;

ALTER TABLE Rental\_information

ADD CONSTRAINT "Rental information PK" PRIMARY KEY ( invoice\_id ) ;

CREATE TABLE membership\_enrollment

(

transaction\_number NUMBER NOT NULL ,

renew\_date DATE NOT NULL ,

expire\_date DATE NOT NULL ,

price NUMBER NOT NULL ,

customer\_id NUMBER NOT NULL ,

employee\_id NUMBER NOT NULL

)

;

ALTER TABLE membership\_enrollment

ADD CONSTRAINT membership\_enrollment\_CKmemexp

CHECK (datediff(dd, renew\_date, expire\_date) > 0)

;

ALTER TABLE membership\_enrollment

ADD CONSTRAINT "membership enrollment PK" PRIMARY KEY ( transaction\_number ) ;

ALTER TABLE Rental\_Game

ADD CONSTRAINT Relation\_11 FOREIGN KEY

(

game\_id

)

REFERENCES Game\_information

(

game\_id

)

;

ALTER TABLE Rental\_Game

ADD CONSTRAINT Relation\_12 FOREIGN KEY

(

invoice\_id

)

REFERENCES Rental\_information

(

invoice\_id

)

ON DELETE CASCADE

;

ALTER TABLE Order\_information

ADD CONSTRAINT Relation\_2 FOREIGN KEY

(

customer\_id

)

REFERENCES Customer

(

customer\_id

)

;

ALTER TABLE Order\_Game

ADD CONSTRAINT contains FOREIGN KEY

(

order\_id

)

REFERENCES Order\_information

(

order\_id

)

ON DELETE CASCADE

;

ALTER TABLE Rental\_information

ADD CONSTRAINT "do rent" FOREIGN KEY

(

employee\_id

)

REFERENCES Employee

(

employee\_id

)

;

ALTER TABLE Order\_Game

ADD CONSTRAINT have FOREIGN KEY

(

game\_id

)

REFERENCES Game\_information

(

game\_id

)

;

ALTER TABLE Employee

ADD CONSTRAINT manage FOREIGN KEY

(

employee\_id1

)

REFERENCES Employee

(

employee\_id

)

ON DELETE CASCADE

;

ALTER TABLE membership\_enrollment

ADD CONSTRAINT "membership enroll" FOREIGN KEY

(

customer\_id

)

REFERENCES Customer

(

customer\_id

)

;

ALTER TABLE Rental\_information

ADD CONSTRAINT rent FOREIGN KEY

(

customer\_id

)

REFERENCES Customer

(

customer\_id

)

;

ALTER TABLE Order\_information

ADD CONSTRAINT "sell info" FOREIGN KEY

(

employee\_id

)

REFERENCES Employee

(

employee\_id

)

;

ALTER TABLE membership\_enrollment

ADD CONSTRAINT "upgrade membership" FOREIGN KEY

(

employee\_id

)

REFERENCES Employee

(

employee\_id

)

;

CREATE OR REPLACE VIEW BuyGame AS

SELECT Customer.customer\_id,

Customer.last\_name,

Customer.first\_name,

Order\_information.datetime,

Game\_information.game\_title,

Order\_information.total\_price

FROM Customer

INNER JOIN Order\_information

ON Customer.customer\_id = Order\_information.customer\_id

INNER JOIN Order\_Game

ON Order\_information.order\_id = Order\_Game.order\_id

INNER JOIN Game\_information

ON Game\_information.game\_id = Order\_Game.game\_id ;

CREATE OR REPLACE VIEW RentGame AS

SELECT Customer.customer\_id,

Customer.last\_name,

Customer.first\_name,

Rental\_information.rental\_date,

Rental\_information.return\_date,

Game\_information.game\_title,

Rental\_information.price

FROM Customer

INNER JOIN Rental\_information

ON Customer.customer\_id = Rental\_information.customer\_id

INNER JOIN Rental\_Game

ON Rental\_information.invoice\_id = Rental\_Game.invoice\_id

INNER JOIN Game\_information

ON Game\_information.game\_id = Rental\_Game.game\_id ;

-- Oracle SQL Developer Data Modeler Summary Report:

--

-- CREATE TABLE 8

-- CREATE INDEX 9

-- ALTER TABLE 21

-- CREATE VIEW 2

-- CREATE PACKAGE 0

-- CREATE PACKAGE BODY 0

-- CREATE PROCEDURE 0

-- CREATE FUNCTION 0

-- CREATE TRIGGER 0

-- ALTER TRIGGER 0

-- CREATE STRUCTURED TYPE 0

-- CREATE COLLECTION TYPE 0

-- CREATE CLUSTER 0

-- CREATE CONTEXT 0

-- CREATE DATABASE 0

-- CREATE DIMENSION 0

-- CREATE DIRECTORY 0

-- CREATE DISK GROUP 0

-- CREATE ROLE 0

-- CREATE ROLLBACK SEGMENT 0

-- CREATE SEQUENCE 0

-- CREATE MATERIALIZED VIEW 0

-- CREATE SYNONYM 0

-- CREATE TABLESPACE 0

-- CREATE USER 0

--

-- DROP TABLESPACE 0

-- DROP DATABASE 0

--

-- ERRORS 0

-- WARNINGS 0

Attaching DDL scripts



**DML (Data Manipulation Language)**

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-- File created - Friday-April-05-2013

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REM INSERTING into CS6441TCR.CUSTOMER

SET DEFINE OFF;

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (1,'A','Bell','1495 E St','8126572834','1','gold','xbox360','rpg');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (2,'B','Carol','23 Rt Blvd','2228312345','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (3,'C','Doll','922 23th st','1875497619','1','bronze','wii','svg');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (4,'D','Elliott','3807 Rose Dvw','2875310984','1','silver','ps3','act');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (5,'E','Frank','36 7th st','1238691234','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (6,'F','Glen','897 s gath st','8365012347','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (7,'G','Hawlett','83 apple dvw','7482359012','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (8,'H','Ivey','90 E st','3764243973','1','diamond','ps3','act');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (9,'I','Jill','5908 napkin blvd','1827452391','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (10,'J','Kiri','223 5th st','6658432145','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (11,'K','Lily','7 11th ave','8432579023','1','bronze','xbox360','rpg');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (12,'L','Merle','89 s tason rd','2435789542','1','gold','ps3','svg');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (13,'M','Noosa','5923-100 s drion road','1023456789','1','gold','nds','act');

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (14,'N','Opera','24 s tanley road','0957641245','0',null,null,null);

Insert into CS6441TCR.CUSTOMER (CUSTOMER\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,IS\_MEMBERSHIP,"level",PREFERRED\_PLATFORM,PREFERRED\_GAMETYPE) values (15,'O','Peter','3013 9th st','8023485712','0',null,null,null);

REM INSERTING into CS6441TCR.EMPLOYEE

SET DEFINE OFF;

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (1,'P','Qatar','1495 E St','8126572834',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (2,'Q','Noll','23 Rt Blvd','2228312345',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (3,'R','Fik','922 23th st','1875497619',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (4,'S','Hata','3807 Rose Dvw','2875310984',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (5,'T','Melon','36 7th st','1238691234',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (6,'U','Lucy','897 s gath st','8365012347',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (7,'V','Oper','83 apple dvw','7482359012',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (8,'W','Titan','90 E st','3764243973',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (9,'X','Washington','5908 napkin blvd','1827452391',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (10,'Y','Kiri','223 5th st','6658432145',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (11,'Z','Lily','7 11th ave','8432579023',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (12,'S','Bell','89 s tason rd','2435789542',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (13,'C','Cyan','5923-100 s drion road','1023456789',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (14,'T','Yap','24 s tanley road','0957641245',1);

Insert into CS6441TCR.EMPLOYEE (EMPLOYEE\_ID,LAST\_NAME,FIRST\_NAME,ADDRESS,PHONE,EMPLOYEE\_ID1) values (15,'Y','Zebra','3013 9th st','8023485712',1);

REM INSERTING into CS6441TCR.GAME\_INFORMATION

SET DEFINE OFF;

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (1,'cod6','fps','ea',to\_date('23-SEP-07','DD-MON-RR'),'cod6',59.99,109);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (2,'last planet','act','sce',to\_date('04-FEB-10','DD-MON-RR'),'lp',49.99,450);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (3,'ff13-2','rpg','se',to\_date('10-DEC-04','DD-MON-RR'),'ff',44.99,290);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (4,'super mario','act','nintendo',to\_date('03-JUL-13','DD-MON-RR'),'mario',24.99,1043);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (5,'doom3','rpg','blizzard',to\_date('12-JUN-12','DD-MON-RR'),'doom',34.99,230);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (6,'dq14','rpg','se',to\_date('08-MAY-08','DD-MON-RR'),'dq',19.99,2784);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (7,'battle field 4','fps','ea',to\_date('08-MAR-10','DD-MON-RR'),'bf4',69.99,1123);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (8,'crysis 3','fps','capcom',to\_date('01-JAN-14','DD-MON-RR'),'cc3',49.99,983);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (9,'dirt 3','rac','koei',to\_date('03-NOV-03','DD-MON-RR'),'d3',19.99,122);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (10,'dmc 4','act','capcom',to\_date('09-MAR-06','DD-MON-RR'),'dmc',24.99,1877);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (11,'planet army','act','sce',to\_date('04-OCT-07','DD-MON-RR'),'pa',14.99,532);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (12,'simlife','sim','ea',to\_date('02-APR-13','DD-MON-RR'),'sim3',29.99,2983);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (13,'mo6','rpg','konami',to\_date('07-SEP-12','DD-MON-RR'),'mo',19.99,98);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (14,'nfs13','rac','sce',to\_date('11-AUG-13','DD-MON-RR'),'nfs',24.99,348);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (15,'fifa','spt','ea',to\_date('03-SEP-09','DD-MON-RR'),'fifa',34.99,821);

Insert into CS6441TCR.GAME\_INFORMATION (GAME\_ID,GAME\_TITLE,TYPE,COMPANY,RELEASE\_DATE,DESCRIPTION,PRICE,STOCKS) values (16,'dance central 3','mug','konami',to\_date('08-APR-13','DD-MON-RR'),'dc3',24.99,5234);

REM INSERTING into CS6441TCR.MEMBERSHIP\_ENROLLMENT

SET DEFINE OFF;

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (1,to\_date('03-JUN-12','DD-MON-RR'),to\_date('04-MAY-13','DD-MON-RR'),120,4,9);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (2,to\_date('04-SEP-12','DD-MON-RR'),to\_date('04-JUN-13','DD-MON-RR'),90,3,2);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (3,to\_date('23-OCT-10','DD-MON-RR'),to\_date('22-OCT-14','DD-MON-RR'),450,8,4);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (4,to\_date('01-JAN-13','DD-MON-RR'),to\_date('01-JUN-13','DD-MON-RR'),60,12,7);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (5,to\_date('03-MAY-10','DD-MON-RR'),to\_date('02-DEC-13','DD-MON-RR'),240,13,4);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (6,to\_date('04-FEB-11','DD-MON-RR'),to\_date('03-JAN-14','DD-MON-RR'),290,1,3);

Insert into CS6441TCR.MEMBERSHIP\_ENROLLMENT (TRANSACTION\_NUMBER,RENEW\_DATE,EXPIRE\_DATE,PRICE,CUSTOMER\_ID,EMPLOYEE\_ID) values (7,to\_date('07-NOV-12','DD-MON-RR'),to\_date('06-FEB-13','DD-MON-RR'),40,11,13);

REM INSERTING into CS6441TCR.ORDER\_GAME

SET DEFINE OFF;

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (1,3,1);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (2,4,1);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (3,7,1);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (4,2,3);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (5,7,4);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (6,2,2);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (7,13,2);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (8,5,1);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (9,12,3);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (10,2,4);

Insert into CS6441TCR.ORDER\_GAME (ORDER\_ID,GAME\_ID,AMOUNT) values (11,3,5);

REM INSERTING into CS6441TCR.ORDER\_INFORMATION

SET DEFINE OFF;

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (1,to\_date('23-JUN-11','DD-MON-RR'),39.99,'N',13,5);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (2,to\_date('05-DEC-11','DD-MON-RR'),29.99,'N',2,4);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (3,to\_date('04-JAN-12','DD-MON-RR'),24.99,'N',5,2);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (4,to\_date('09-MAR-12','DD-MON-RR'),59.99,'N',9,14);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (5,to\_date('12-APR-12','DD-MON-RR'),49.99,'N',15,5);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (6,to\_date('23-JUL-12','DD-MON-RR'),34.99,'N',9,7);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (7,to\_date('04-SEP-12','DD-MON-RR'),94.99,'N',8,5);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (8,to\_date('19-NOV-12','DD-MON-RR'),24.99,'N',13,8);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (9,to\_date('18-FEB-13','DD-MON-RR'),39.99,'N',3,10);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (10,to\_date('23-FEB-13','DD-MON-RR'),49.99,'N',7,2);

Insert into CS6441TCR.ORDER\_INFORMATION (ORDER\_ID,DATETIME,TOTAL\_PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (11,to\_date('04-APR-13','DD-MON-RR'),19.99,'N',11,1);

REM INSERTING into CS6441TCR.RENTAL\_GAME

SET DEFINE OFF;

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (1,10,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (2,2,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (3,3,2);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (4,4,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (5,7,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (6,5,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (7,14,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (8,13,1);

Insert into CS6441TCR.RENTAL\_GAME (INVOICE\_ID,GAME\_ID,AMOUNT) values (9,9,1);

REM INSERTING into CS6441TCR.RENTAL\_INFORMATION

SET DEFINE OFF;

Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (1,to\_date('03-JUN-10','DD-MON-RR'),to\_date('23-AUG-10','DD-MON-RR'),19.45,'Y',1,2);

Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (2,to\_date('14-OCT-10','DD-MON-RR'),to\_date('23-DEC-10','DD-MON-RR'),23.48,'Y',14,10);

Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (3,to\_date('23-NOV-10','DD-MON-RR'),to\_date('20-DEC-10','DD-MON-RR'),14.49,'YY',9,8);

Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (4,to\_date('20-JAN-11','DD-MON-RR'),to\_date('24-MAR-11','DD-MON-RR'),17.69,'Y',3,5);

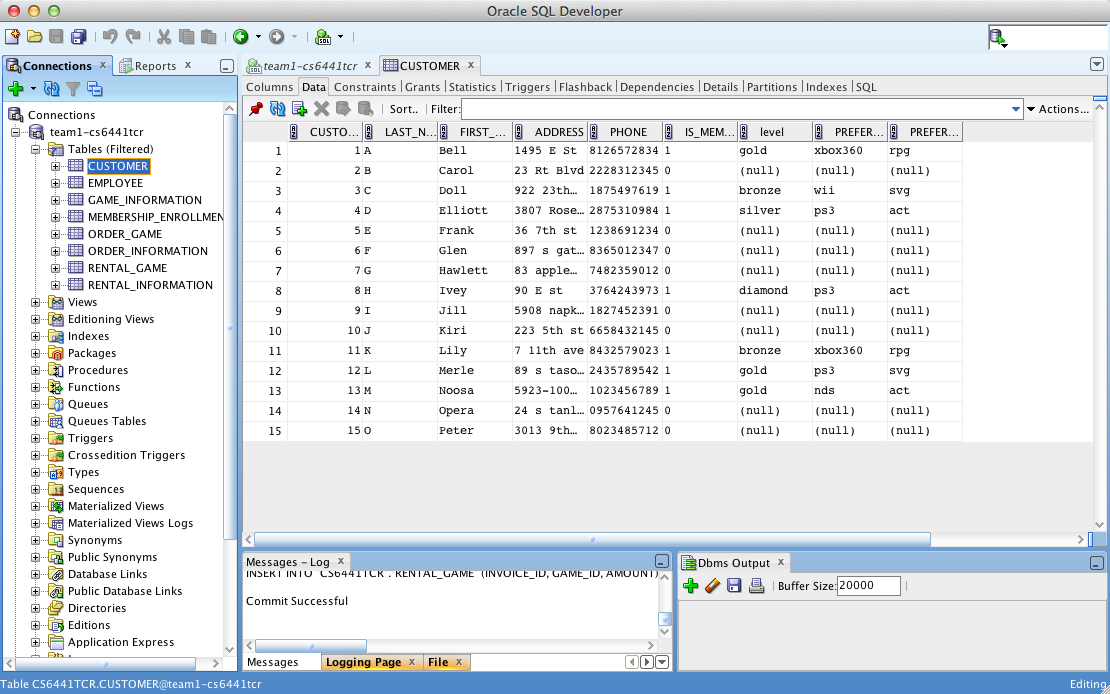
Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (5,to\_date('03-MAY-11','DD-MON-RR'),to\_date('29-MAY-11','DD-MON-RR'),18.55,'Y',6,11);

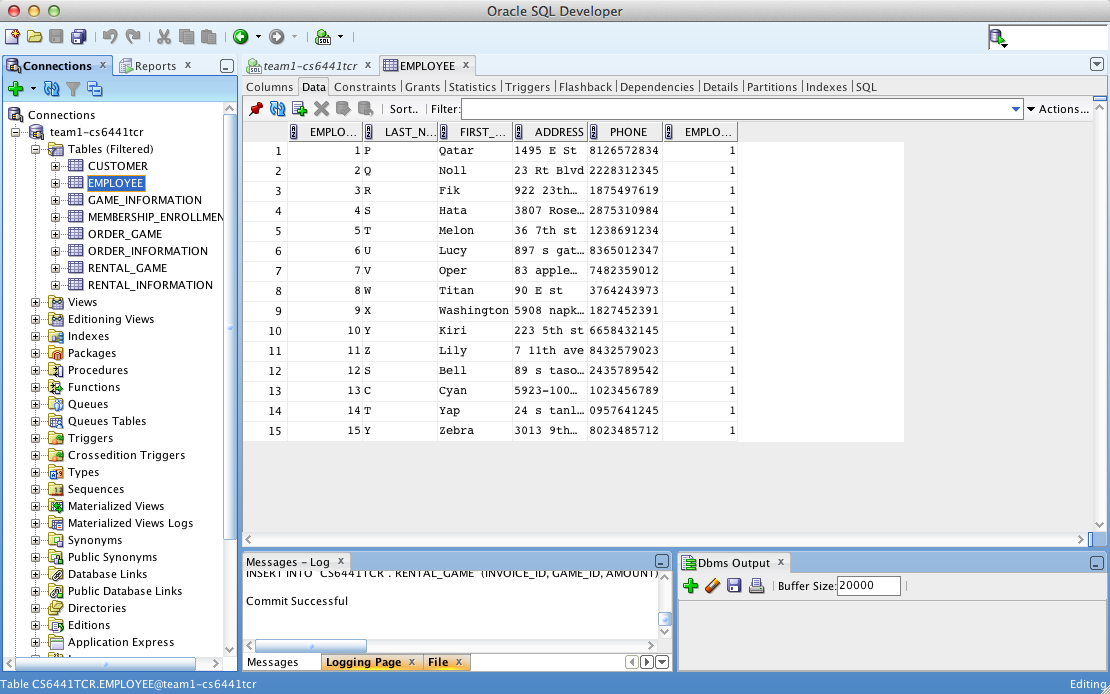
Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (6,to\_date('09-SEP-11','DD-MON-RR'),to\_date('13-OCT-11','DD-MON-RR'),10.34,'Y',2,3);

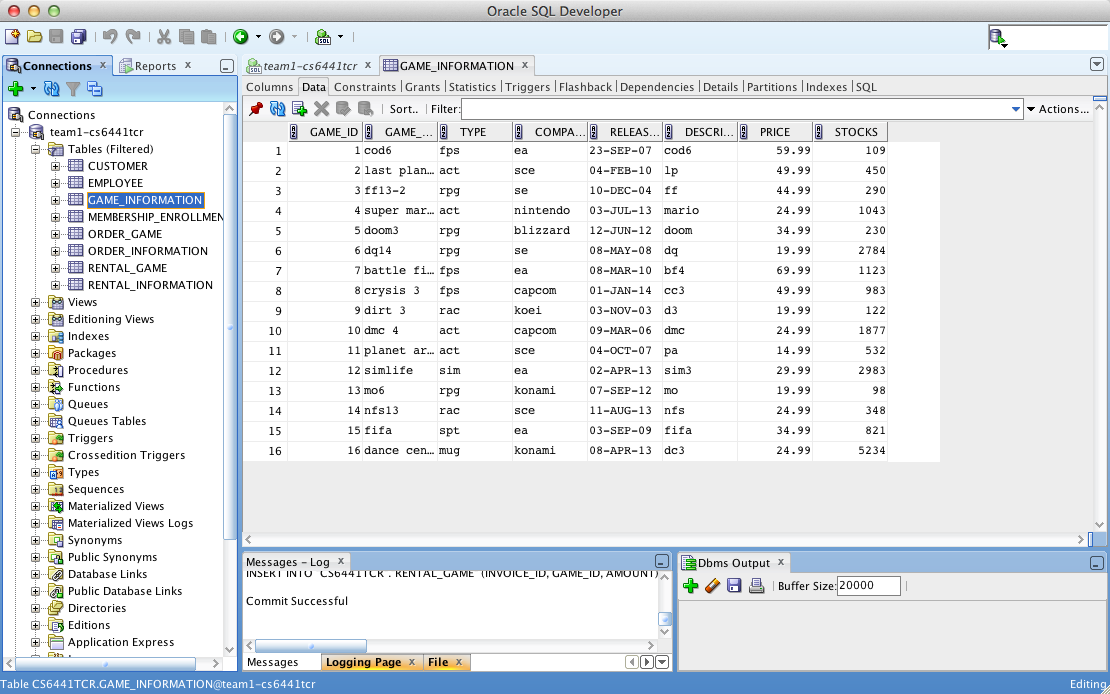
Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (7,to\_date('13-MAR-12','DD-MON-RR'),to\_date('29-MAR-12','DD-MON-RR'),25.67,'Y',8,2);

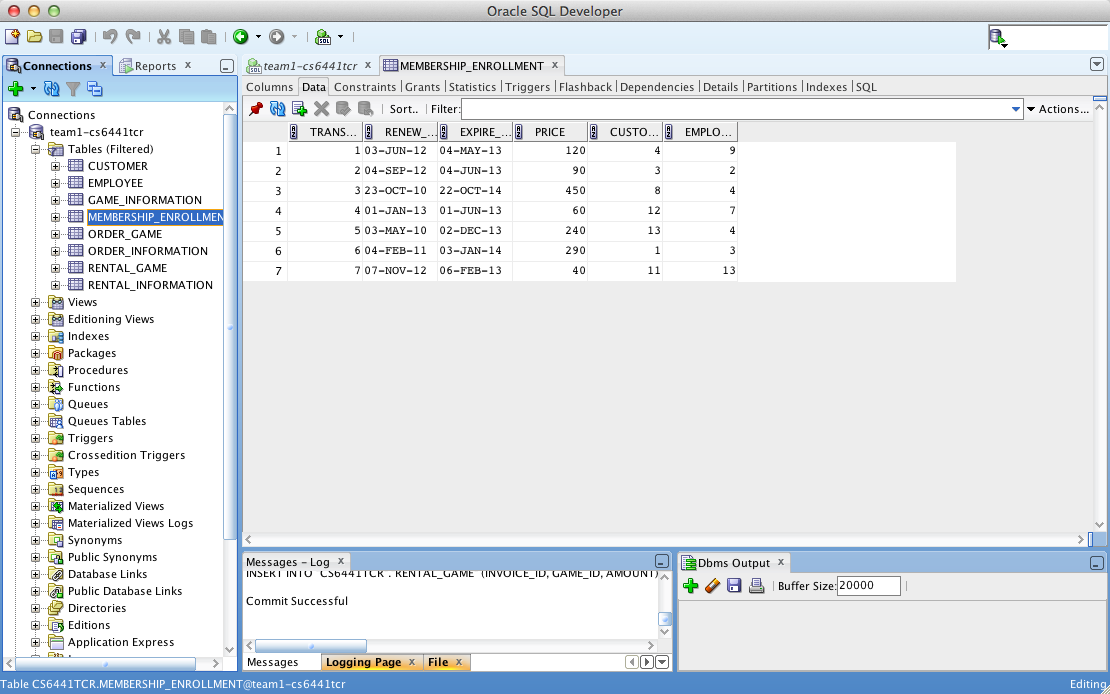
Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (8,to\_date('03-JUN-12','DD-MON-RR'),to\_date('23-JUL-12','DD-MON-RR'),34.9,'YY',10,13);

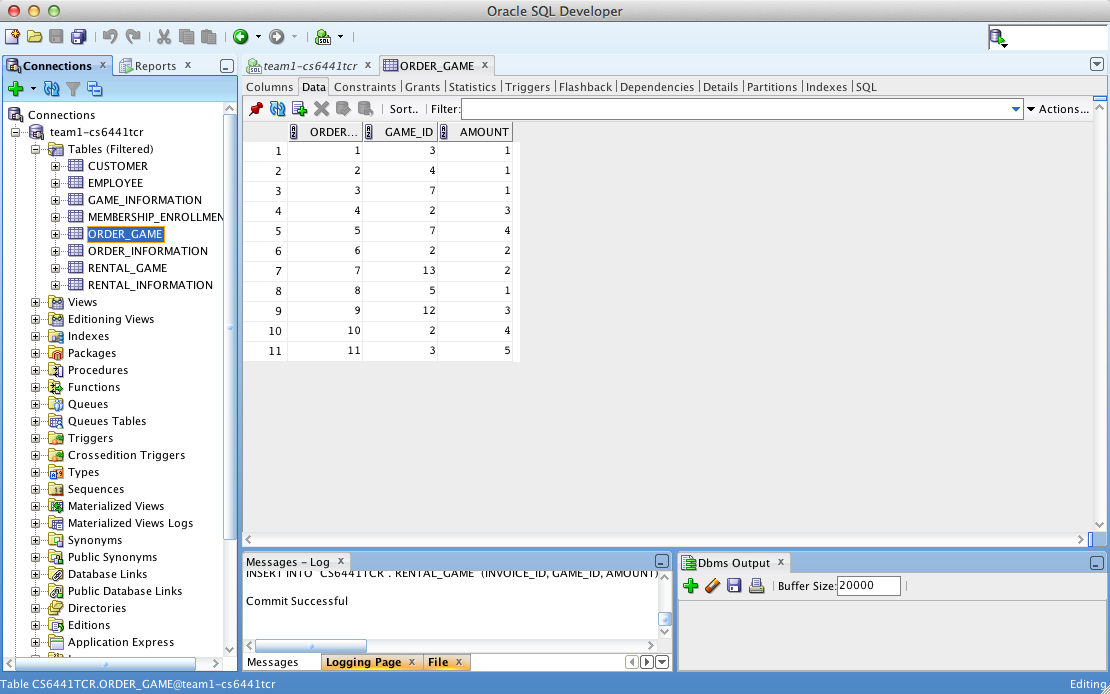
Insert into CS6441TCR.RENTAL\_INFORMATION (INVOICE\_ID,RENTAL\_DATE,RETURN\_DATE,PRICE,MEMO,CUSTOMER\_ID,EMPLOYEE\_ID) values (9,to\_date('14-SEP-12','DD-MON-RR'),to\_date('03-NOV-12','DD-MON-RR'),45.78,'Y',2,9);

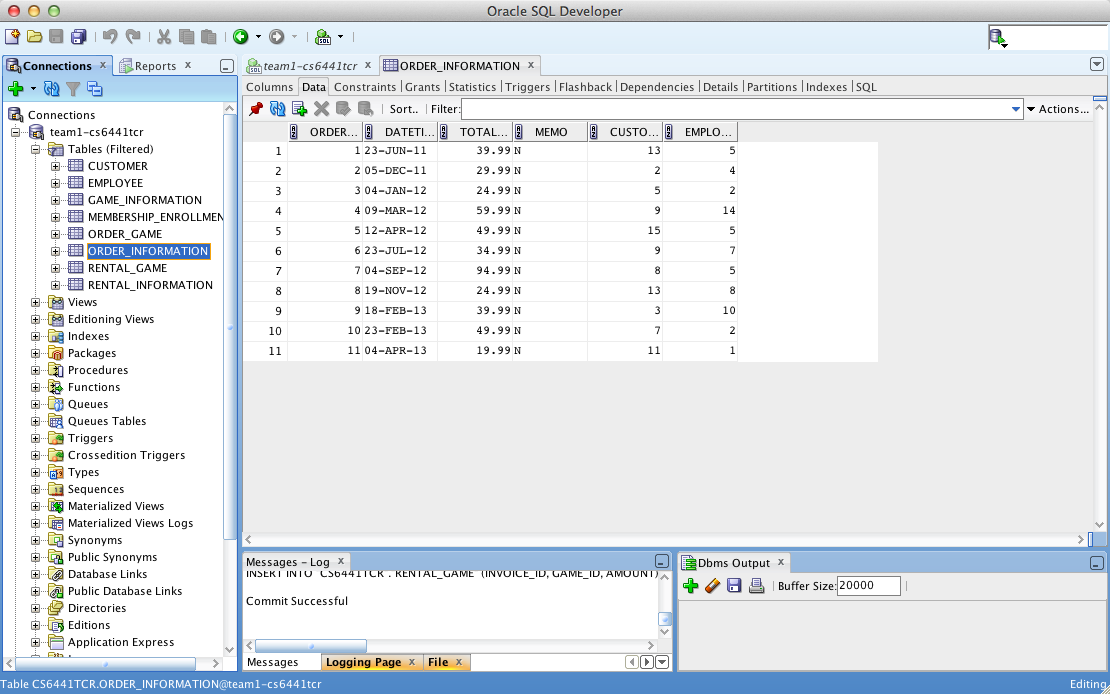


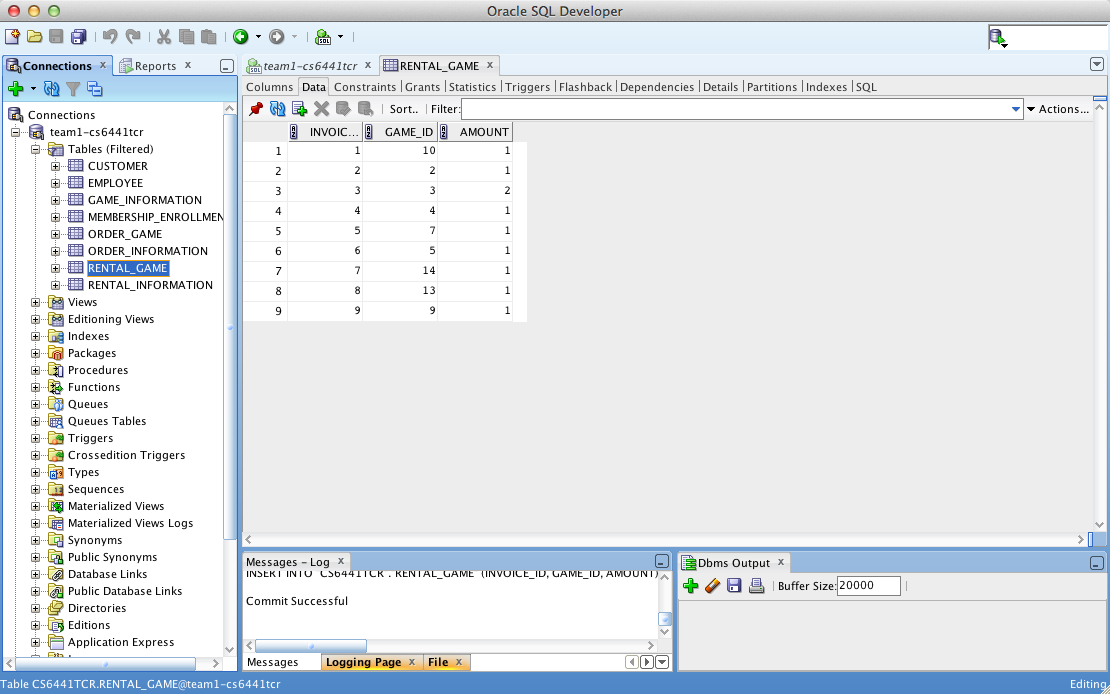


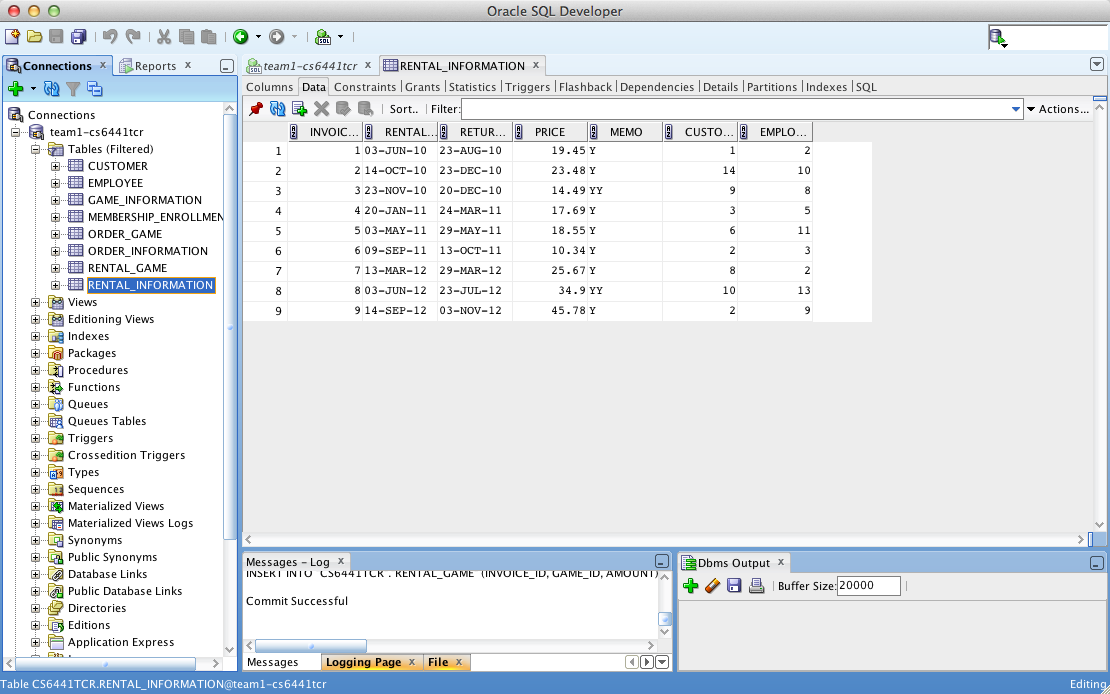












**Query Statement**

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-----SELECT QUERY STATEMENT

--------------------------------------------------

----LIST ALL CUSTOMER

SELECT \* FROM CUSTOMER;

----LIST EMPLOYEES THAT MANAGED BY MANAGER THAT ID = 4

SELECT \*

FROM EMPLOYEE

WHERE employee\_id1=4;

----LIST ALL GAMES THAT GAMETYPE IS RPG

SELECT GAME\_TITLE

FROM game\_information

WHERE type='rpg';

----SOME GAMES IS READY TO SALE

SELECT GAME\_TITLE "SALES READY", STOCKS, PRICE "CURRENT PRICE", PRICE\*0.8 "SALES PRICE"

FROM game\_information

WHERE STOCKS>1000 AND TRUNC(SYSDATE-RELEASE\_DATE)>180;

----SHOW MEMBERSHIP NO.11 FAVIOURITE GAME

SELECT GAME\_TITLE

FROM game\_information, customer

WHERE customer.customer\_id= 11 AND type = customer.preferred\_gametype;

----MEMBERSHIP ENROLLMENT INFORMATION

SELECT LAST\_NAME, FIRST\_NAME, EXPIRE\_DATE

FROM customer

RIGHT JOIN membership\_enrollment

ON customer.customer\_id=MEMBERSHIP\_ENROLLMENT.CUSTOMER\_ID;

----SHOW MANAGERMENT RELATIONSHIP

SELECT EMP.LAST\_NAME AS "EMPLOYEE LASTNAME",

EMP.FIRST\_NAME AS "EMPLOYEE FIRSTNAME",

MAN.FIRST\_NAME AS "MANAGER FIRSTNAME"

FROM EMPLOYEE EMP

LEFT JOIN EMPLOYEE MAN

ON EMP.EMPLOYEE\_ID1=MAN.EMPLOYEE\_ID;

----SHOW CUSTOMER LIKED GAME INFORMATION

SELECT LAST\_NAME, FIRST\_NAME, GAME\_TITLE, RELEASE\_DATE

FROM CUSTOMER

INNER JOIN GAME\_INFORMATION

ON CUSTOMER.PREFERRED\_GAMETYPE=GAME\_INFORMATION.TYPE;

----SHOW MANAGERMENT RELATIONSHIP

SELECT LAST\_NAME, FIRST\_NAME,

(SELECT FIRST\_NAME FROM EMPLOYEE MAN WHERE MAN.EMPLOYEE\_ID = EMP.EMPLOYEE\_ID1) "MANAGER NAME"

FROM EMPLOYEE EMP;

----SHOW CUSTOMER NO.13 ALL ORDERS

SELECT FIRST\_NAME, ORDER\_ID

FROM CUSTOMER, ORDER\_INFORMATION

WHERE CUSTOMER.CUSTOMER\_ID=ORDER\_INFORMATION.CUSTOMER\_ID AND CUSTOMER.CUSTOMER\_ID=13;

----SHOW MEMBERS THAT WILL EXPIRE LESS THAN 30 DAYS

SELECT CUSTOMER\_ID, FIRST\_NAME

FROM CUSTOMER

WHERE CUSTOMER\_ID

IN (SELECT CUSTOMER\_ID FROM MEMBERSHIP\_ENROLLMENT WHERE TRUNC(EXPIRE\_DATE-SYSDATE) < 30);

----SHOW CUSTOMER ALL BUYS WITH DESCEND

SELECT CUSTOMER\_ID, SUM(TOTAL\_PRICE) AS "CUSTOMER TOTAL COMSUMPTION"

FROM ORDER\_INFORMATION

GROUP BY customer\_id

ORDER BY "CUSTOMER TOTAL COMSUMPTION" DESC;

----SHOW EMPLOYEE SELLS WITH DESCEND

SELECT EMPLOYEE\_ID, SUM(TOTAL\_PRICE) AS "EMPLOYEE TOTAL SELLS"

FROM ORDER\_INFORMATION

GROUP BY EMPLOYEE\_ID

ORDER BY "EMPLOYEE TOTAL SELLS" DESC;

----INFORMATION ABOUT ORDER THAT GREATER THAT $50

SELECT CUSTOMER\_ID, SUM(TOTAL\_PRICE) FROM ORDER\_INFORMATION GROUP BY CUSTOMER\_ID HAVING SUM(TOTAL\_PRICE)>50;

----ALL SELLS IN 2012

SELECT SUM(TOTAL\_PRICE) FROM ORDER\_INFORMATION WHERE DATETIME BETWEEN '01-JAN-12' AND '31-DEC-12';

Attaching the ddl file:

**DML AND AUDIT**

ALTER TABLE EMPLOYEE

ADD

(

CREATE\_DATE DATE,

CREATE\_BY VARCHAR2(20),

UPDATE\_DATE DATE,

UPDATE\_BY VARCHAR2(20)

);

ALTER TABLE CUSTOMER

ADD

(

CREATE\_DATE DATE,

CREATE\_BY VARCHAR2(20),

UPDATE\_DATE DATE,

UPDATE\_BY VARCHAR2(20)

);

create or replace

TRIGGER ADDCUSTOMER

BEFORE INSERT ON CUSTOMER

FOR EACH ROW

DECLARE

V\_USERNAME VARCHAR2(20);

BEGIN

SELECT USER INTO V\_USERNAME

FROM DUAL;

:NEW.CREATE\_DATE := SYSDATE;

:NEW.CREATE\_BY := V\_USERNAME;

END;

create or replace

TRIGGER UPDCUSTOMER

BEFORE UPDATE ON CUSTOMER

FOR EACH ROW

DECLARE

V\_USERNAME VARCHAR2(20);

BEGIN

SELECT USER INTO V\_USERNAME

FROM DUAL;

:NEW.UPDATE\_DATE := SYSDATE;

:NEW.UPDATE\_BY := V\_USERNAME;

END;

create or replace

TRIGGER ADDEMPLOYEE

BEFORE INSERT ON EMPLOYEE

FOR EACH ROW

DECLARE

V\_USERNAME VARCHAR2(20);

BEGIN

SELECT USER INTO V\_USERNAME

FROM DUAL;

:NEW.CREATE\_DATE := SYSDATE;

:NEW.CREATE\_BY := V\_USERNAME;

END;

create or replace

TRIGGER UPDEMPLOYEE

BEFORE UPDATE ON EMPLOYEE

FOR EACH ROW

DECLARE

V\_USERNAME VARCHAR2(20);

BEGIN

SELECT USER INTO V\_USERNAME

FROM DUAL;

:NEW.UPDATE\_DATE := SYSDATE;

:NEW.UPDATE\_BY := V\_USERNAME;

END;

create or replace

TRIGGER ACTIVEMEM

AFTER INSERT ON MEMBERSHIP\_ENROLLMENT

FOR EACH ROW

BEGIN

UPDATE CUSTOMER

SET IS\_MEMBERSHIP = 1

WHERE CUSTOMER\_ID = :new.CUSTOMER\_ID;

END;

create or replace

TRIGGER SUBRENTSTOCK

AFTER INSERT ON RENTAL\_GAME

FOR EACH ROW

BEGIN

UPDATE GAME\_INFORMATION

SET STOCKS = STOCKS - :new.AMOUNT

WHERE GAME\_ID = :new.GAME\_ID;

END;

create or replace

TRIGGER SUBSOLDSTOCK

AFTER INSERT ON ORDER\_GAME

FOR EACH ROW

BEGIN

UPDATE GAME\_INFORMATION

SET STOCKS = STOCKS - :new.AMOUNT

WHERE GAME\_ID = :new.GAME\_ID;

END;

ATTACHING DDL FILE:

