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SQL Commands

Scalf-00-scripts.sql

```
SPOOL .\scalf-scripts-output.txt;
@scripts\Scalf-00-CreateTables.sql
@scripts\Scalf-01-InsertData.sql
@scripts\Scalf-02-Query.sql
REM @scripts\Scalf-03-Drop.sql
SPOOL OFF;
```

Scalf-01-queries.sql

```
SET FEEDBACK OFF;

SPOOL .\scalf-queries-output.txt;

PROMPT 1. All customer's names account numbers, and addresses sorted by account
number;
@queries\Scalf-00-Customers.sql

PROMPT ;
PROMPT ;
PROMPT 2. Videos rented in last 30 days, sorted chronologically;
@queries\Scalf-01-Past30DaysRentals.sql


PROMPT ;
PROMPT ;
PROMPT 3. List of all distributor's information, sorted by company name;
@queries\Scalf-02-Distributors.sql


PROMPT ;
PROMPT ;
PROMPT 4. Updating a customer's last name;
@queries\Scalf-03-UpdateSurname.sql


PROMPT ;
PROMPT ;
PROMPT 5. Deleting a customer from the database
@queries\Scalf-04-DeletingCustomer.sql

SPOOL OFF;

SET FEEDBACK ON;
```

scripts\Scalf-00-CreateTables.sql

```sql
CREATE TABLE CUSTOMER (
    customerID INT NOT NULL,
    firstName VARCHAR(20) NOT NULL,
    lastName VARCHAR(20) NOT NULL,
    streetAddress VARCHAR(30) NOT NULL,
    city VARCHAR(20) NOT NULL,
    zipCode INT NOT NULL,
    phoneNumber INT,

    PRIMARY KEY (customerID)
);

CREATE TABLE RENTAL (
    rentalID INT NOT NULL,
    customerID INT NOT NULL,
    dateRented DATE NOT NULL,
    dueDate DATE NOT NULL,
    dateReturned DATE,
    taxRate NUMBER NOT NULL,

    FOREIGN KEY (customerID) REFERENCES CUSTOMER(customerID) ON DELETE CASCADE,
    PRIMARY KEY (rentalID)
);

CREATE TABLE FEE (
    feeType VARCHAR(16) NOT NULL,
    charge NUMBER NOT NULL,

    PRIMARY KEY (feeType)
);

CREATE TABLE APPLIED_FEE (
    appliedFeeID INT NOT NULL,
    rentalID INT NOT NULL,
    feeType VARCHAR(16) NOT NULL,

    FOREIGN KEY (rentalID) REFERENCES RENTAL(rentalID) ON DELETE CASCADE,
    FOREIGN KEY (feeType) REFERENCES FEE(feeType) ON DELETE CASCADE,
    PRIMARY KEY (appliedFeeID)
);

CREATE TABLE MOVIE (
    movieID INT NOT NULL,
    title VARCHAR(30) NOT NULL,
    isDVD CHAR(1) NOT NULL,
    genre VARCHAR(20),
    runningLength INT NOT NULL,
    rating VARCHAR(4),
    year INT NOT NULL,

    PRIMARY KEY (movieID)
);

CREATE TABLE DISTRIBUTOR (
    distributorID INT NOT NULL,
    distributorName VARCHAR(10),
    loyaltyDiscount NUMBER,
    PRIMARY KEY (distributorID)
);

CREATE TABLE CATALOG (
    catalogID INT NOT NULL,
    distributorID INT NOT NULL,
    volume VARCHAR(10),

    FOREIGN KEY (distributorID) REFERENCES DISTRIBUTOR(distributorID) ON DELETE
CASCADE,
    PRIMARY KEY (catalogID, distributorID)
);

CREATE TABLE CATALOG_ENTRY (
    catalogEntryID INT NOT NULL,
    catalogID INT NOT NULL,
    distributorID INT NOT NULL,
    movieID INT NOT NULL,
    wholesalePrice NUMBER NOT NULL,

    FOREIGN KEY (catalogID, distributorID) REFERENCES CATALOG(catalogID,
distributorID) ON DELETE CASCADE,
    FOREIGN KEY (movieID) REFERENCES MOVIE(movieID) ON DELETE CASCADE,
    PRIMARY KEY (catalogEntryID)
);

CREATE TABLE SHIPMENT (
    shipmentID INT NOT NULL,
    distributorID INT NOT NULL,
    dateOrdered DATE NOT NULL,
    dateShipped DATE NOT NULL,

    FOREIGN KEY (distributorID) REFERENCES DISTRIBUTOR(distributorID) ON DELETE
CASCADE,
    PRIMARY KEY (shipmentID, distributorID)
);

CREATE TABLE MOVIE_ORDER (
    movieOrderID INT NOT NULL,
    catalogEntryID INT NOT NULL,
    shipmentID INT NOT NULL,
    distributorID INT NOT NULL,
    quantity INT NOT NULL,

    FOREIGN KEY (catalogEntryID) REFERENCES CATALOG_ENTRY(catalogEntryID) ON DELETE
CASCADE,
    FOREIGN KEY (shipmentID, distributorID) REFERENCES SHIPMENT(shipmentID,
distributorID) ON DELETE CASCADE,
    PRIMARY KEY (movieOrderID)
);

CREATE TABLE INVENTORY_MOVIE (
    inventoryID INT NOT NULL,
    catalogEntryID INT NOT NULL,
    quantityInStock INT NOT NULL,

    FOREIGN KEY (catalogEntryID) REFERENCES CATALOG_ENTRY(catalogEntryID) ON DELETE
CASCADE,
    PRIMARY KEY (inventoryID)
);

CREATE TABLE MOVIE_RENTAL (
    movieRentalID INT NOT NULL,
    rentalID INT NOT NULL,
    inventoryID INT NOT NULL,

    FOREIGN KEY (rentalID) REFERENCES RENTAL(rentalID) ON DELETE CASCADE,
    FOREIGN KEY (inventoryID) REFERENCES INVENTORY_MOVIE(inventoryID) ON DELETE
CASCADE,
    PRIMARY KEY (movieRentalID)
);

CREATE TABLE AWARD (
    name VARCHAR(10) NOT NULL,
    year INT NOT NULL,
    movieID INT NOT NULL,

    FOREIGN KEY (movieID) REFERENCES MOVIE(movieID) ON DELETE CASCADE,
    PRIMARY KEY (name, year)
);

CREATE TABLE ACTOR (
    actorID INT NOT NULL,
    name VARCHAR(50) NOT NULL,

    PRIMARY KEY (actorID)
);

CREATE TABLE CASTING (
    castingID INT NOT NULL,
    movieID INT NOT NULL,
    actorID INT NOT NULL,

    FOREIGN KEY (movieID) REFERENCES MOVIE(movieID) ON DELETE CASCADE,
    FOREIGN KEY (actorID) REFERENCES ACTOR(actorID) ON DELETE CASCADE,
    PRIMARY KEY (castingID)
);

CREATE TABLE DIRECTOR (
    directorID INT NOT NULL,
    name VARCHAR(50) NOT NULL,

    PRIMARY KEY (directorID)
);

CREATE TABLE DIRECTOR_SEAT (
    directorSeatID INT NOT NULL,
    movieID INT NOT NULL,
    directorID INT NOT NULL,

    FOREIGN KEY (movieID) REFERENCES MOVIE(movieID) ON DELETE CASCADE,
    FOREIGN KEY (directorID) REFERENCES DIRECTOR(directorID) ON DELETE CASCADE,
    PRIMARY KEY (directorSeatID)
);
```

scripts\Scalf-01-InsertData.sql

```
INSERT INTO
CUSTOMER (customerID, firstName, lastName, streetAddress, city, zipCode,
phoneNumber)
    SELECT 1, 'First', 'Customer', '1 Easy St.', 'City', 11111, 8005550001 FROM
dual UNION ALL
    SELECT 2, 'Second', 'Client', '2 Easy St.', 'City', 22222, 8005550002  FROM
dual UNION ALL
    SELECT 3, 'Third', 'Renter', '3 Easy St.', 'City', 33333, 8005550003 FROM dual
UNION ALL
    SELECT 4, 'Fourth', 'Consumer', '4 Easy St.', 'City', 44444, 8005550004 FROM
dual UNION ALL
    SELECT 5, 'Fifth', 'Maiden', '5 Easy St.', 'City', 55555, 8005550005 FROM dual;

INSERT INTO
RENTAL (rentalID, customerID, dateRented, dueDate, dateReturned, taxRate)
    SELECT 11, 1, '27-FEB-21', '01-MAR-21', '01-MAR-21', 0.8 FROM dual UNION ALL
    SELECT 12, 2, '13-MAR-21', '15-MAR-21', '14-MAR-21', 0.8 FROM dual UNION ALL
    SELECT 13, 3, '27-MAR-21', '29-MAR-21', '31-MAR-21', 0.8 FROM dual UNION ALL
    SELECT 14, 4, '10-APR-21', '12-APR-21', '17-APR-21', 0.8 FROM dual UNION ALL
    SELECT 15, 5, '24-APR-21', '26-APR-21', NULL, 0.8 FROM dual;


INSERT INTO
FEE (feeType, charge)
    SELECT 'LATE', 1.0 FROM dual UNION ALL
    SELECT 'DAMAGED', 2.5 FROM dual UNION ALL
    SELECT 'REWIND', .25 FROM dual UNION ALL
    SELECT 'DESTROYED', 25 FROM dual UNION ALL
    SELECT 'LOST', 25 FROM dual;

INSERT INTO
APPLIED_FEE (appliedFeeID, rentalID, feeType)
    SELECT 110, 11, 'DAMAGED' FROM dual UNION ALL
    SELECT 120, 12, 'REWIND' FROM dual UNION ALL
    SELECT 130, 13, 'LATE' FROM dual UNION ALL
    SELECT 140, 14, 'LATE' FROM dual UNION ALL
    SELECT 141, 14, 'REWIND' FROM dual;

INSERT INTO
MOVIE (movieID, title, isDVD, genre, runningLength, rating, year)
    SELECT 200, 'Movie1', 'N', 'genre1', 90, 'PG13', 1990 FROM dual UNION ALL
    SELECT 210, 'Movie2', 'N', 'genre2', 100, 'R', 1999 FROM dual UNION ALL
    SELECT 211, 'Movie3', 'Y', 'genre3', 98, 'G', 1998 FROM dual UNION ALL
    SELECT 221, 'Movie4', 'Y', 'genre4', 67, 'PG13', 2000 FROM dual UNION ALL
    SELECT 231, 'Movie5', 'Y', 'genre5', 128, 'PG', 2000 FROM dual;

INSERT INTO
DISTRIBUTOR (distributorID, distributorName, loyaltyDiscount)
    SELECT 300, 'Dist1', 0.1 FROM dual UNION ALL
    SELECT 301, 'Dist2', 0.05 FROM dual UNION ALL
    SELECT 302, 'Dist3', NULL FROM dual UNION ALL
    SELECT 303, 'Dist4', NULL FROM dual UNION ALL
    SELECT 304, 'Dist5', 0.12 FROM dual;

INSERT INTO
CATALOG (catalogID, distributorID, volume)
    SELECT 11999, 300, 'JAN1999' FROM dual UNION ALL
    SELECT 11999, 301, '1999Q1' FROM dual UNION ALL
    SELECT 12099, 302, 'DEC1999' FROM dual UNION ALL
    SELECT 12000, 303, 'JAN2000' FROM dual UNION ALL
    SELECT 200101, 304, 'JAN2001' FROM dual;

INSERT INTO
CATALOG_ENTRY (catalogEntryID, catalogID, distributorID, movieID, wholesalePrice)
    SELECT 400, 11999, 300, 200, 2.75 FROM dual UNION ALL
    SELECT 401, 11999, 301, 210, 2.70 FROM dual UNION ALL
    SELECT 402, 12099, 302, 211, 3.65 FROM dual UNION ALL
    SELECT 403, 12000, 303, 221, 3.59 FROM dual UNION ALL
    SELECT 404, 200101, 304, 231, 3.25 FROM dual;

INSERT INTO
SHIPMENT (shipmentID, distributorID, dateOrdered, dateShipped)
    SELECT 1234, 300, '01-FEB-99', '07-FEB-99' FROM dual UNION ALL
    SELECT 1234, 301, '01-FEB-99', '10-FEB-99' FROM dual UNION ALL
    SELECT 1302, 302, '06-DEC-99', '08-DEC-99' FROM dual UNION ALL
    SELECT 2300, 300, '09-JAN-00', '13-JAN-00' FROM dual UNION ALL
    SELECT 1304, 304, '15-APR-01', '16-APR-01' FROM dual;

INSERT INTO
MOVIE_ORDER (movieOrderID, catalogEntryID, shipmentID, distributorID, quantity)
    SELECT 10, 400, 1234, 300, 10 FROM dual UNION ALL
    SELECT 11, 401, 1234, 301, 10 FROM dual UNION ALL
    SELECT 12, 402, 1302, 302, 10 FROM dual UNION ALL
    SELECT 13, 403, 2300, 300, 10 FROM dual UNION ALL
    SELECT 14, 404, 1304, 304, 10 FROM dual;

INSERT INTO
INVENTORY_MOVIE (inventoryID, catalogEntryID, quantityInStock)
    SELECT 91, 400, 10 FROM dual UNION ALL
    SELECT 92, 401, 10 FROM dual UNION ALL
    SELECT 93, 402, 10 FROM dual UNION ALL
    SELECT 94, 403, 10 FROM dual UNION ALL
    SELECT 95, 404, 10 FROM dual;

INSERT INTO
MOVIE_RENTAL (movieRentalID, rentalID, inventoryID)
    SELECT 501, 11, 91 FROM dual UNION ALL
    SELECT 502, 12, 92 FROM dual UNION ALL
    SELECT 503, 13, 93 FROM dual UNION ALL
    SELECT 504, 14, 94 FROM dual UNION ALL
    SELECT 505, 15, 95 FROM dual;

INSERT INTO
AWARD (name, year, movieID)
    SELECT 'Award1', 1991, 200 FROM dual UNION ALL
    SELECT 'Award2', 2000, 210 FROM dual UNION ALL
    SELECT 'Award3', 1999, 211 FROM dual UNION ALL
    SELECT 'Award4', 2001, 221 FROM dual UNION ALL
    SELECT 'Award5', 2001, 231 FROM dual;

INSERT INTO
ACTOR (actorID, name)
    SELECT 1101, 'Actor1' FROM dual UNION ALL
    SELECT 1102, 'Actor2' FROM dual UNION ALL
    SELECT 1103, 'Actor3' FROM dual UNION ALL
    SELECT 1104, 'Actor4' FROM dual UNION ALL
    SELECT 1105, 'Actor5' FROM dual;

INSERT INTO
CASTING (castingID, movieID, actorID)
    SELECT 1111, 200, 1101 FROM dual UNION ALL
    SELECT 1112, 210, 1102 FROM dual UNION ALL
    SELECT 1113, 211, 1103 FROM dual UNION ALL
    SELECT 1114, 221, 1104 FROM dual UNION ALL
    SELECT 1115, 231, 1105 FROM dual;

INSERT INTO
DIRECTOR (directorID, name)
    SELECT 1201, 'Director1' FROM dual UNION ALL
    SELECT 1202, 'Director2' FROM dual UNION ALL
    SELECT 1203, 'Director3' FROM dual UNION ALL
    SELECT 1204, 'Director4' FROM dual UNION ALL
    SELECT 1205, 'Director5' FROM dual;

INSERT INTO
DIRECTOR_SEAT (directorSeatID, movieID, directorID)
    SELECT 1211, 200, 1201 FROM dual UNION ALL
    SELECT 1212, 210, 1202 FROM dual UNION ALL
    SELECT 1213, 211, 1203 FROM dual UNION ALL
    SELECT 1214, 221, 1204 FROM dual UNION ALL
    SELECT 1215, 231, 1205 FROM dual;
```

scripts\Scalf-02-Query.sql

```
SELECT * FROM CUSTOMER;
SELECT * FROM RENTAL;
SELECT * FROM FEE;
SELECT * FROM APPLIED_FEE;
SELECT * FROM MOVIE;
SELECT * FROM DISTRIBUTOR;
SELECT * FROM CATALOG;
SELECT * FROM CATALOG_ENTRY;
SELECT * FROM SHIPMENT;
SELECT * FROM MOVIE_ORDER;
SELECT * FROM INVENTORY_MOVIE;
SELECT * FROM MOVIE_RENTAL;
SELECT * FROM AWARD;
SELECT * FROM ACTOR;
SELECT * FROM CASTING;
SELECT * FROM DIRECTOR;
SELECT * FROM DIRECTOR_SEAT;
```

scripts\Scalf-03-Drop.sql

```
DROP TABLE DIRECTOR_SEAT;
DROP TABLE DIRECTOR;
DROP TABLE CASTING;
DROP TABLE ACTOR;
DROP TABLE AWARD;
DROP TABLE MOVIE_RENTAL;
DROP TABLE INVENTORY_MOVIE;
DROP TABLE MOVIE_ORDER;
DROP TABLE SHIPMENT;
DROP TABLE CATALOG_ENTRY;
DROP TABLE CATALOG;
DROP TABLE DISTRIBUTOR;
DROP TABLE MOVIE;
DROP TABLE APPLIED_FEE;
DROP TABLE FEE;
DROP TABLE RENTAL;
DROP TABLE CUSTOMER;
```

queries\Scalf-00-Customers.sql

```
SELECT customerID AS account_Number, lastName, firstName, streetAddress, zipCode
FROM CUSTOMER
ORDER BY customerID;
```

queries\Scalf-01-Past30DaysRentals.sql

```
SELECT R.*, MR.title
FROM RENTAL R
INNER JOIN (
    SELECT MR.*, I.title
    FROM MOVIE_RENTAL MR
    INNER JOIN (
        SELECT I.*, CE.title
        FROM INVENTORY_MOVIE I
        INNER JOIN (
            SELECT CE.*, M.title
            FROM CATALOG_ENTRY CE
            INNER JOIN (
                SELECT movieID, title FROM MOVIE
            ) M
            ON M.movieID = CE.movieID
        ) CE
        ON CE.catalogEntryID = I.catalogEntryID
    ) I
    ON I.inventoryID = MR.inventoryID
) MR
ON MR.rentalID = R.rentalID
WHERE R.dateRented >= sysdate-30
ORDER BY R.dateRented;
```

queries\Scalf-02-Distributors.sql

```
SELECT *
FROM DISTRIBUTOR
ORDER BY distributorName;
```

queries\Scalf-03-UpdateSurname.sql

```
SAVEPOINT update_customer;
    SELECT *
    FROM CUSTOMER
    WHERE customerID = 5;

    UPDATE CUSTOMER
    SET lastName = 'Married'
    WHERE customerID = 5;

    SELECT *
    FROM CUSTOMER
    WHERE customerID = 5;
ROLLBACK TO update_customer;
```

queries\Scalf-04-DeletingCustomer.sql

```
SAVEPOINT delete_customer;
    SELECT * FROM CUSTOMER;

    DELETE FROM CUSTOMER WHERE customerID = 3;

    SELECT * FROM CUSTOMER;
ROLLBACK TO delete_customer;
```

SPOOL files

scalf-scripts-output.txt

```
Table CUSTOMER created.


Table RENTAL created.


Table FEE created.


Table APPLIED_FEE created.


Table MOVIE created.


Table DISTRIBUTOR created.


Table CATALOG created.


Table CATALOG_ENTRY created.


Table SHIPMENT created.


Table MOVIE_ORDER created.


Table INVENTORY_MOVIE created.


Table MOVIE_RENTAL created.


Table AWARD created.


Table ACTOR created.


Table CASTING created.


Table DIRECTOR created.


Table DIRECTOR_SEAT created.


5 rows inserted.
```

```
5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.

CUSTOMERID FIRSTNAME            LASTNAME             STREETADDRESS
CITY                    ZIPCODE PHONENUMBER
---------- -------------------- -------------------- ------------------------------
-------------------- ---------- -----------
         1 First                Customer             1 Easy St.
City                      11111  8005550001
         2 Second               Client               2 Easy St.
City                      22222  8005550002
         3 Third                Renter               3 Easy St.
City                      33333  8005550003
```

```
         4 Fourth               Consumer             4 Easy St.
City                      44444  8005550004
         5 Fifth                Maiden               5 Easy St.
City                      55555  8005550005


  RENTALID CUSTOMERID DATERENTE DUEDATE   DATERETUR    TAXRATE
---------- ---------- --------- --------- --------- ----------
        11          1 27-FEB-21 01-MAR-21 01-MAR-21         .8
        12          2 13-MAR-21 15-MAR-21 14-MAR-21         .8
        13          3 27-MAR-21 29-MAR-21 31-MAR-21         .8
        14          4 10-APR-21 12-APR-21 17-APR-21         .8
        15          5 24-APR-21 26-APR-21                   .8


FEETYPE              CHARGE
---------------- ----------
LATE                      1
DAMAGED                 2.5
REWIND                  .25
DESTROYED                25
LOST                     25


APPLIEDFEEID   RENTALID FEETYPE
------------ ---------- ----------------
         110         11 DAMAGED
         120         12 REWIND
         130         13 LATE
         140         14 LATE
         141         14 REWIND


   MOVIEID TITLE                          I GENRE                RUNNINGLENGTH RATI
YEAR
---------- ------------------------------ - -------------------- ------------- ----
----------
       200 Movie1                         N genre1                          90 PG13
1990
       210 Movie2                         N genre2                         100 R
1999
       211 Movie3                         Y genre3                          98 G
1998
       221 Movie4                         Y genre4                          67 PG13
2000
       231 Movie5                         Y genre5                         128 PG
2000


DISTRIBUTORID DISTRIBUTO LOYALTYDISCOUNT
------------- ---------- ---------------
          300 Dist1                   .1
          301 Dist2                  .05
          302 Dist3
          303 Dist4
          304 Dist5                  .12


 CATALOGID DISTRIBUTORID VOLUME
```

```
---------- ------------ ----------
     11999          300 JAN1999
     11999          301 1999Q1
     12099          302 DEC1999
     12000          303 JAN2000
    200101          304 JAN2001

CATALOGENTRYID  CATALOGID DISTRIBUTORID    MOVIEID WHOLESALEPRICE
-------------- ---------- ------------- ---------- --------------
           400      11999           300        200           2.75
           401      11999           301        210            2.7
           402      12099           302        211           3.65
           403      12000           303        221           3.59
           404     200101           304        231           3.25

SHIPMENTID DISTRIBUTORID DATEORDER DATESHIPP
---------- ------------- --------- ---------
      1234           300 01-FEB-99 07-FEB-99
      1234           301 01-FEB-99 10-FEB-99
      1302           302 06-DEC-99 08-DEC-99
      2300           300 09-JAN-00 13-JAN-00
      1304           304 15-APR-01 16-APR-01

MOVIEORDERID CATALOGENTRYID SHIPMENTID DISTRIBUTORID   QUANTITY
------------ -------------- ---------- ------------- ----------
          10            400       1234           300         10
          11            401       1234           301         10
          12            402       1302           302         10
          13            403       2300           300         10
          14            404       1304           304         10

INVENTORYID CATALOGENTRYID QUANTITYINSTOCK
----------- -------------- ---------------
         91            400              10
         92            401              10
         93            402              10
         94            403              10
         95            404              10

MOVIERENTALID   RENTALID INVENTORYID
------------- ---------- -----------
          501         11          91
          502         12          92
          503         13          93
          504         14          94
          505         15          95

NAME             YEAR    MOVIEID
---------- ---------- ----------
Award1           1991        200
Award2           2000        210
Award3           1999        211
Award4           2001        221
```

```
Award5           2001        231


   ACTORID NAME
---------- --------------------------------------------------
      1101 Actor1
      1102 Actor2
      1103 Actor3
      1104 Actor4
      1105 Actor5


 CASTINGID    MOVIEID    ACTORID
---------- ---------- ----------
      1111        200       1101
      1112        210       1102
      1113        211       1103
      1114        221       1104
      1115        231       1105


DIRECTORID NAME
---------- --------------------------------------------------
      1201 Director1
      1202 Director2
      1203 Director3
      1204 Director4
      1205 Director5


DIRECTORSEATID    MOVIEID DIRECTORID
-------------- ---------- ----------
          1211        200       1201
          1212        210       1202
          1213        211       1203
          1214        221       1204
          1215        231       1205
```

scalf-queries-output.txt

```
1. All customer's names account numbers, and addresses sorted by account number

ACCOUNT_NUMBER LASTNAME             FIRSTNAME            STREETADDRESS
ZIPCODE
-------------- -------------------- --------------------
------------------------------ ----------
             1 Customer             First                1 Easy St.
11111
             2 Client               Second               2 Easy St.
22222
             3 Renter               Third                3 Easy St.
33333
             4 Consumer             Fourth               4 Easy St.
44444
             5 Maiden               Fifth                5 Easy St.
55555
```

2. Videos rented in last 30 days, sorted chronologically

```
  RENTALID CUSTOMERID DATERENTE DUEDATE   DATERETUR    TAXRATE TITLE
---------- ---------- --------- --------- --------- ----------
------------------------------
        13          3 27-MAR-21 29-MAR-21 31-MAR-21         .8 Movie3
        14          4 10-APR-21 12-APR-21 17-APR-21         .8 Movie4
        15          5 24-APR-21 26-APR-21                   .8 Movie5
```

3. List of all distributor's information, sorted by company name

```
DISTRIBUTORID DISTRIBUTO LOYALTYDISCOUNT
------------- ---------- ---------------
          300 Dist1                   .1
          301 Dist2                  .05
          302 Dist3
          303 Dist4
          304 Dist5                  .12
```

4. Updating a customer's last name

```
CUSTOMERID FIRSTNAME            LASTNAME             STREETADDRESS
CITY                   ZIPCODE PHONENUMBER
---------- -------------------- -------------------- ------------------------------
-------------------- --------- -----------
         5 Fifth                Maiden               5 Easy St.
City                     55555  8005550005

CUSTOMERID FIRSTNAME            LASTNAME             STREETADDRESS
CITY                   ZIPCODE PHONENUMBER
---------- -------------------- -------------------- ------------------------------
-------------------- --------- -----------
         5 Fifth                Married              5 Easy St.
City                     55555  8005550005
```

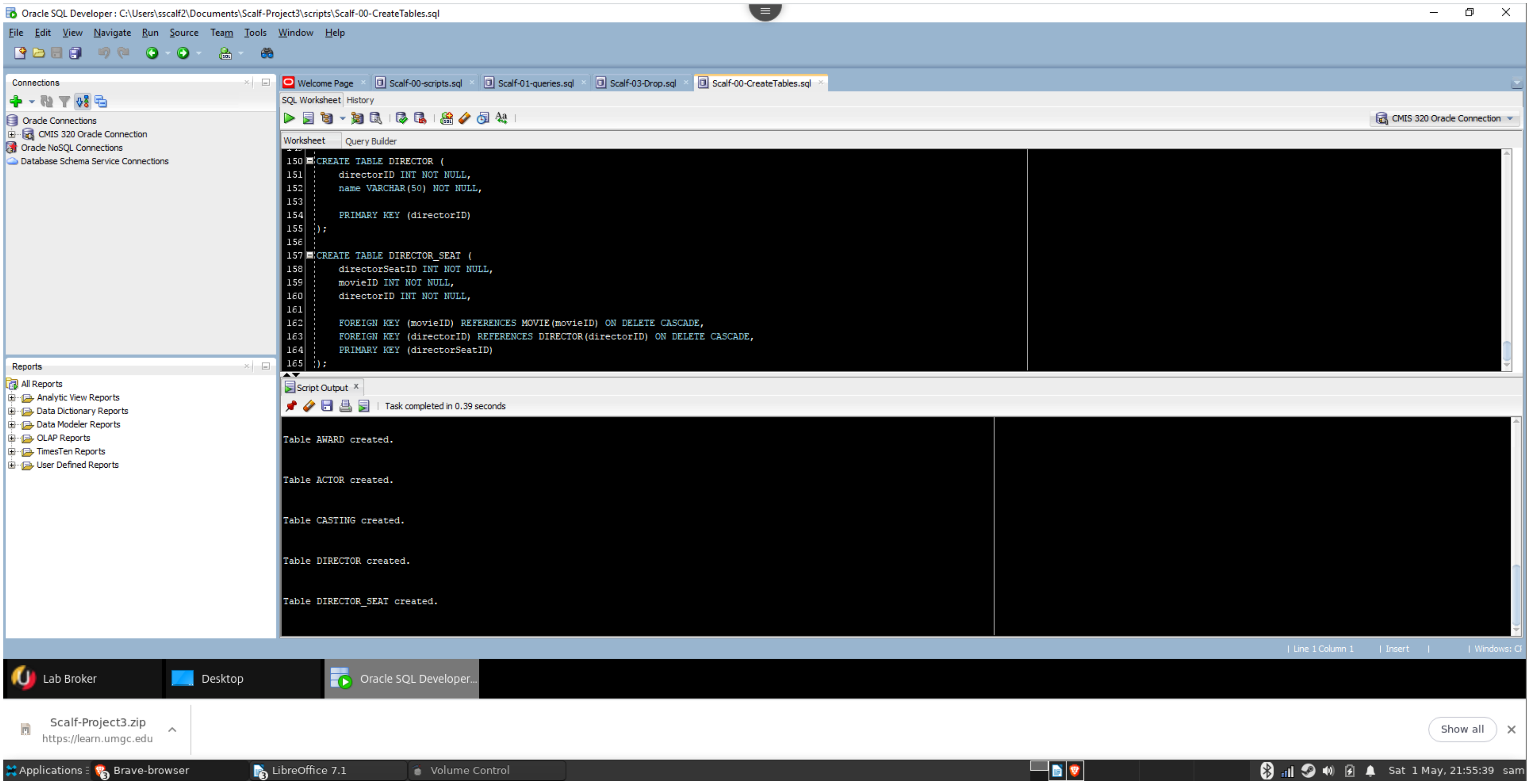
5. Deleting a customer from the database

```
CUSTOMERID FIRSTNAME            LASTNAME             STREETADDRESS
CITY                   ZIPCODE PHONENUMBER
---------- -------------------- -------------------- ------------------------------
-------------------- --------- -----------
         1 First                Customer             1 Easy St.
City                     11111  8005550001
         2 Second               Client               2 Easy St.
City                     22222  8005550002
         3 Third                Renter               3 Easy St.
City                     33333  8005550003
         4 Fourth               Consumer             4 Easy St.
City                     44444  8005550004
         5 Fifth                Maiden               5 Easy St.
City                     55555  8005550005

CUSTOMERID FIRSTNAME            LASTNAME             STREETADDRESS
CITY                   ZIPCODE PHONENUMBER
---------- -------------------- -------------------- ------------------------------
-------------------- --------- -----------
```

```
         1 First                Customer             1 Easy St.
City                      11111  8005550001
         2 Second               Client               2 Easy St.
City                      22222  8005550002
         4 Fourth               Consumer             4 Easy St.
City                      44444  8005550004
         5 Fifth                Maiden               5 Easy St.
City                      55555  8005550005
```

Screenshots

Creating Tables

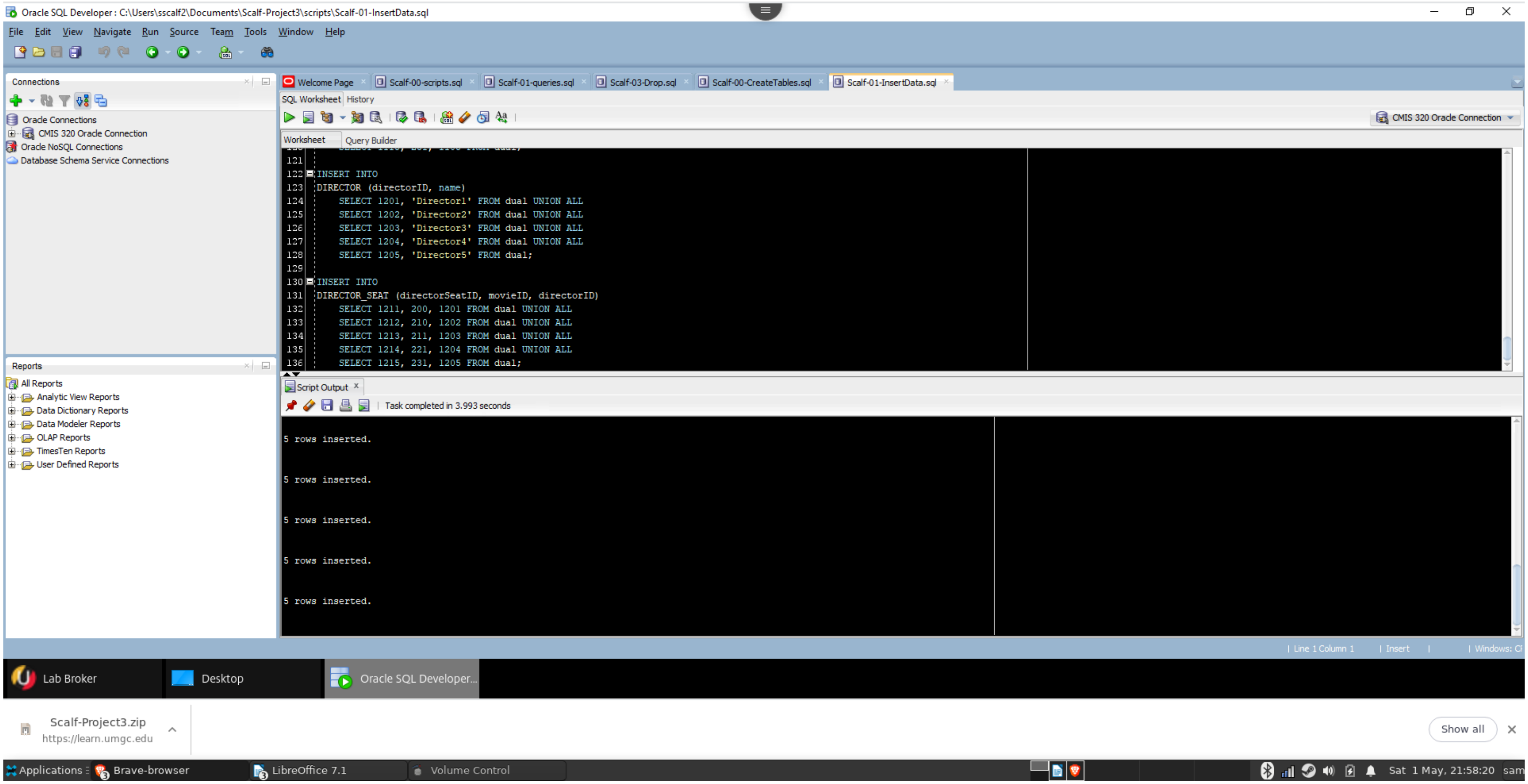


```
CREATE TABLE DIRECTOR (
    directorID INT NOT NULL,
    name VARCHAR(50) NOT NULL,

    PRIMARY KEY (directorID)
);

CREATE TABLE DIRECTOR_SEAT (
    directorSeatID INT NOT NULL,
    movieID INT NOT NULL,
    directorID INT NOT NULL,

    FOREIGN KEY (movieID) REFERENCES MOVIE(movieID) ON DELETE CASCADE,
    FOREIGN KEY (directorID) REFERENCES DIRECTOR(directorID) ON DELETE CASCADE,
    PRIMARY KEY (directorSeatID)
);
```

Task completed in 0.39 seconds

```
Table AWARD created.


Table ACTOR created.


Table CASTING created.


Table DIRECTOR created.


Table DIRECTOR_SEAT created.
```

Inserting Data

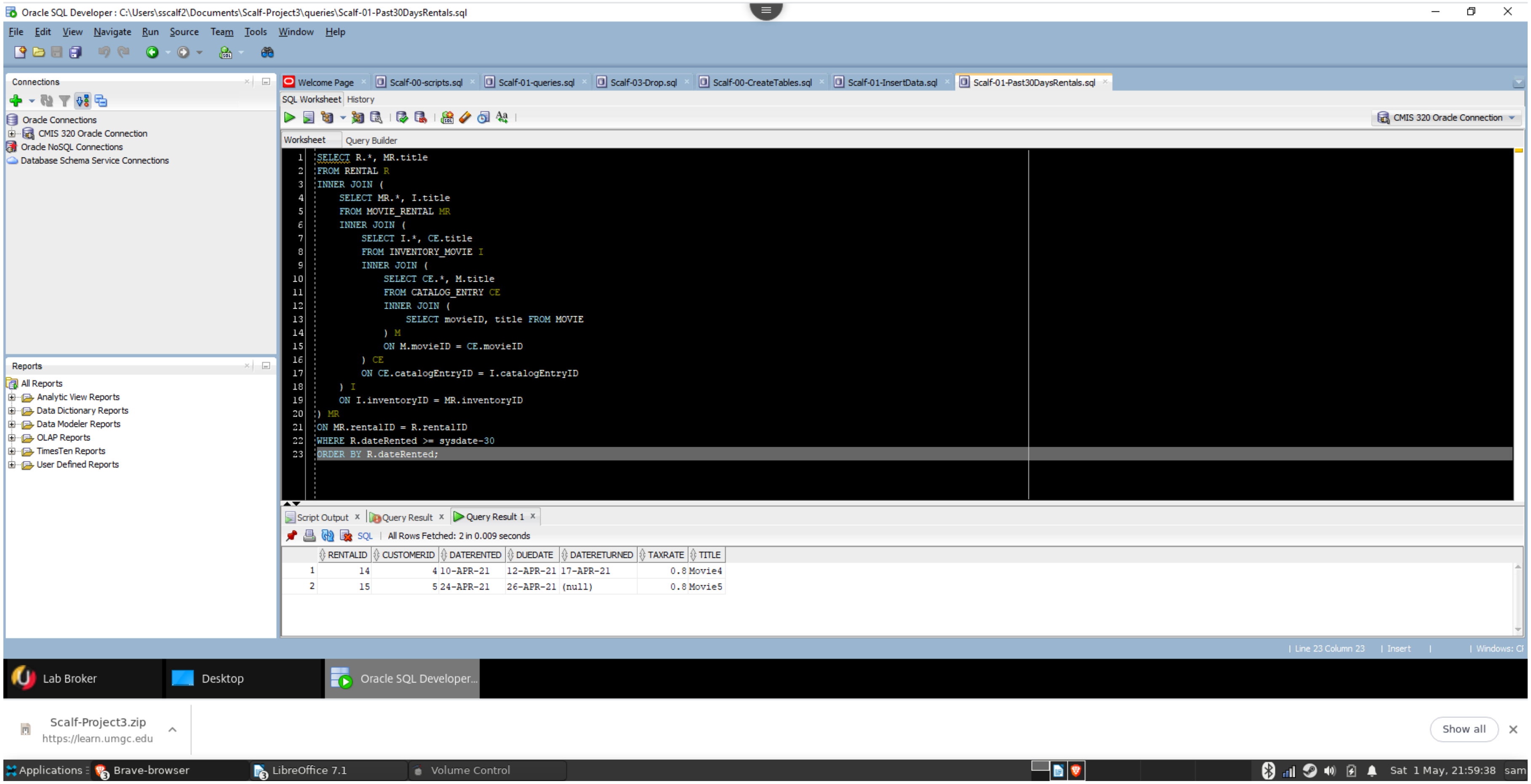


```
INSERT INTO
DIRECTOR (directorID, name)
    SELECT 1201, 'Director1' FROM dual UNION ALL
    SELECT 1202, 'Director2' FROM dual UNION ALL
    SELECT 1203, 'Director3' FROM dual UNION ALL
    SELECT 1204, 'Director4' FROM dual UNION ALL
    SELECT 1205, 'Director5' FROM dual;

INSERT INTO
DIRECTOR_SEAT (directorSeatID, movieID, directorID)
    SELECT 1211, 200, 1201 FROM dual UNION ALL
    SELECT 1212, 210, 1202 FROM dual UNION ALL
    SELECT 1213, 211, 1203 FROM dual UNION ALL
    SELECT 1214, 221, 1204 FROM dual UNION ALL
    SELECT 1215, 231, 1205 FROM dual;
```

Task completed in 3.993 seconds

```
5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.


5 rows inserted.
```

Running Queries



```sql
SELECT R.*, MR.title
FROM RENTAL R
INNER JOIN (
    SELECT MR.*, I.title
    FROM MOVIE_RENTAL MR
    INNER JOIN (
        SELECT I.*, CE.title
        FROM INVENTORY_MOVIE I
        INNER JOIN (
            SELECT CE.*, M.title
            FROM CATALOG_ENTRY CE
            INNER JOIN (
                SELECT movieID, title FROM MOVIE
            ) M
            ON M.movieID = CE.movieID
        ) CE
        ON CE.catalogEntryID = I.catalogEntryID
    ) I
    ON I.inventoryID = MR.inventoryID
) MR
ON MR.rentalID = R.rentalID
WHERE R.dateRented >= sysdate-30
ORDER BY R.dateRented;
```

All Rows Fetched: 2 in 0.009 seconds

	RENTALID	CUSTOMERID	DATERENTED	DUEDATE	DATERETURNED	TAXRATE	TITLE
1	14	4	10-APR-21	12-APR-21	17-APR-21	0.8	Movie4
2	15	5	24-APR-21	26-APR-21	(null)	0.8	Movie5

NOTE: The query results in this screenshot differ from the scalf-queries-output.txt because scalf-queries-output.txt was generated on 24 April 2021, three days before the due date, while this snapshot was generated on 01 MAY 2021 in response to a change to project requirements made on 29 APR 2021, two days after the due date.