OracleFlix: SQL Statements

An Oracle PL/SQL RDBMS project by Matthew Crabtree, June 2021

Sections 1 & 2: Working with DDL statements while creating and managing constraints

Actors

```sql
create table actors(
actor_id number(10,0) constraint actor_id_pk primary key,
stage_name varchar2(40) constraint stage_name_nn not null,
first_name varchar2(25) constraint first_name_nn not null,
last_name varchar2(25) constraint last_name_nn not null,
birth_date date constraint birth_date_nn not null
);
```

Movies

```sql
create table movies(
title_id number(10,0) constraint title_id_pk primary key,
title varchar2(60) constraint title_nn not null,
description varchar2(400) constraint description_nn not null,
rating varchar2(4) constraint rating_chk check (rating in ('g', 'pg', 'r', 'pg13')),
category varchar2(20) constraint category_chk check (category in ('drama', 'comedy', 'action', 'child', 'scifi',
'documentary')),
```

```
    release_date date constraint release_date_nn not null
);
```

Star billings

```
create table star_billings(
actor_id number(10,0) constraint actor_id_fk references actors(actor_id),
title_id number(10,0) constraint title_id_fk references movies(title_id),
comments varchar2(40),
constraint actor_id_title_id_pk primary key (actor_id, title_id)
);
```

Media

```
create table media(
media_id number(10,0) constraint media_id_pk primary key,
format varchar2(3) constraint media_format_nn not null,
title_id number(10,0) constraint title_id_nn not null ,
constraint media_title_id_fk foreign key(title_id) references movies(title_id)
);
```

Customers

```
create table customers(
customer_id number(10,0) constraint customers_customer_id_pk primary key,
last_name varchar2(25) constraint customers_last_name_nn not null,
first_name varchar2(25) constraint customers_first_name_nn not null,
home_phone varchar2(12) constraint customers_home_phone_nn not null,
address varchar2(100) constraint customers_address_nn not null,
```

```
city varchar2(30) constraint customers_city_nn not null,
state varchar2(2) constraint customers_state_nn not null,
email varchar2(25),
cell_phone varchar2(12)
);
```

Rental history

```
create table rental_history(
media_id number(10,0) constraint media_id_fk references media(media_id),
rental_date date default sysdate,
customer_id number(10,0) constraint customer_id_nn not null,
return_date date,
constraint cust_id_cust_id_fk foreign key(customer_id) references customers(customer_id),
constraint media_id_rental_date_pk primary key (media_id, rental_date)
);
```

Section 3: Creating and managing views

```
create view title_unavail("movie title", "id") as
select movies.title, media.media_id
from rental_history
inner join media on rental_history.media_id = media.media_id inner join movies on media.title_id = movies.title_id
where rental_history.return_date is null
with read only;
```

Section 4: Working with sequences

```
create sequence customer_id_sequence start with 101;
```

```
create sequence title_id_sequence start with 1;
```

```
create sequence media_id_sequence start with 92;
```

```
create sequence actor_id_sequence start with 1001;
```

Section 5: Populating tables with data

Movies

```
insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, 'the godfather', 'Crime Drama', 'r', 'drama', to_date('24 march 1972', 'DD Month YYYY'));

insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, 'the shawshank redemption', 'Two imprisoned men bond over a number of years, finding
solace and eventual redemption through acts of common decency. ', 'r', 'drama', to_date('14 october 1994', 'DD Month
YYYY'));

insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, 'raging bull', 'The life of boxer Jake LaMotta, whose violence and temper that led him to
the top in the ring destroyed his life outside of it.', 'r', 'drama', to_date('19 december 1980', 'DD Month YYYY'));

insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, 'casablanca', 'A cynical expatriate American cafe owner struggles to decide whether or not
to help his former lover and her fugitive husband escape the Nazis in French Morocco.', 'pg', 'drama', to_date('23 january
1943', 'DD Month YYYY'));
```

```sql
insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, 'citizen kane', 'Following the death of publishing tycoon Charles Foster Kane, reporters
scramble to uncover the meaning of his final utterance; Rosebud.', 'pg', 'drama', to_date('5 september 1941', 'DD Month
YYYY'));

insert into movies(title_id, title, description, rating, category, release_date)
values(title_id_sequence.nextval, '12 angry men', 'A jury holdout attempts to prevent a miscarriage of justice by forcing
his colleagues to reconsider the evidence.', 'pg', 'drama', to_date('10 april 1957', 'DD Month YYYY'));
```

Actors

```sql
insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'marlon', 'marlon', 'brando', to_date('3 april 1924','DD Month YYYY'));

insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'tim', 'timothy', 'robbins', to_date('16 October 1958','DD Month YYYY'));

insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'robert', 'robert', 'de niro', to_date('17 august 1943','DD Month YYYY'));

insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'humphrey', 'humphrey', 'bogart', to_date('25 december 1899','DD Month YYYY'));

insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'orson', 'george', 'welles', to_date('6 may 1915','DD Month YYYY'));

insert into actors(actor_id, stage_name, first_name, last_name, birth_date)
values(actor_id_sequence.nextval, 'henry', 'henry', 'fonda', to_date('16 may 1905','DD Month YYYY'));
```

Star Billings

```sql
insert into star_billings(actor_id, title_id, comments)
values(1001, 1, 'Vito Corleone is a mafia boss');

insert into star_billings(actor_id, title_id, comments)
values(1002, 2, 'sentenced to two life sentences');

insert into star_billings(actor_id, title_id, comments)
values(1003, 3, 'Jake LaMotta was an American boxer');

insert into star_billings(actor_id, title_id, comments)
values(1004, 4, 'Rick Blaine owns a club in Casablanca');

insert into star_billings(actor_id, title_id, comments)
values(1005, 5, 'Charles Kanes last word was "Rosebud"');

insert into star_billings(actor_id, title_id, comments)
values(1006, 6, 'Juror 8, justice-seeking architect');
```

Media

```sql
insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',1);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',1);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',2);
```

```sql
insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',2);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',3);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',3);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',4);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',4);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',5);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',5);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'dvd',6);

insert into media(media_id, format , title_id)
values(media_id_sequence.nextval,'BR',6);
```

Customers

```sql
insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'jack', 'alan', '01415689854', '12 coulter avenue', 'glasgow', 'uk', 'alan@email.com',
'07458985621');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'fee', 'helen', '01415325689', '32 darmuir crescent', 'glasgow', 'uk',
'helen@email.com', '07458985621');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'crabtree', 'matthew', '01412547895', '176 allison street', 'glasgow', 'uk',
'matt@email.com', '07584896523');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'patrick', 'michael', '01415248978', '65 thompson road', 'glasgow', 'uk',
'michael@email.com', '074584521698');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'james', 'robert', '01415489542', '76 timpson avenue', 'glasgow', 'uk',
'robert@email.com', '07457895123');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'peterson', 'chris', '01415490541', '84 honeycomb mews', 'glasgow', 'uk',
'chris@email.com', '07457974068');

insert into customers(customer_id, last_name, first_name, home_phone, address, city, state, email, cell_phone)
values(customer_id_sequence.nextval,'michaels', 'janet', '01415491540', '85 juniper place', 'glasgow', 'uk',
'janet@email.com', '07458053013');
```

Rental history

```sql
insert into rental_history(media_id, rental_date, customer_id, return_date)
values(94, to_date('18 august 2020', 'DD Month YYYY'), 101, to_date('22 august 2020', 'DD Month YYYY'));

insert into rental_history(media_id, rental_date, customer_id, return_date)
values(95, to_date('19 august 2020', 'DD Month YYYY'), 102, to_date('23 august 2020', 'DD Month YYYY'));

insert into rental_history(media_id, rental_date, customer_id, return_date)
values(96, to_date('20 august 2020', 'DD Month YYYY'), 103, to_date('24 august 2020', 'DD Month YYYY'));

insert into rental_history(media_id, rental_date, customer_id, return_date)
values(97, to_date('21 august 2020', 'DD Month YYYY'), 104, to_date('25 august 2020', 'DD Month YYYY'));

insert into rental_history(media_id, rental_date, customer_id, return_date)
values(98, to_date('22 august 2020', 'DD Month YYYY'), 105, to_date('26 august 2020', 'DD Month YYYY'));

insert into rental_history(media_id, rental_date, customer_id, return_date)
values(99, to_date('23 august 2020', 'DD Month YYYY'), 106, to_date('27 august 2020', 'DD Month YYYY'));
```

Section 6: Index creation

```sql
create index customer_last_name_index on customers(last_name);
```

Section 7: Synonym Creation

```sql
create synonym tu for title_unavail;
```