SQL Programming Project Code/Solutions

OracleFlix Online Media Rentals

Tables/Contraints:

CREATE TABLE customers
(customer_id NUMBER(10) CONSTRAINT customer_id_pk PRIMARY KEY,
last_name VARCHAR2(25) NOT NULL,
first_name VARCHAR2(25) NOT NULL,
home_phone VARCHAR2(12) NOT NULL,
address VARCHAR2(100) NOT NULL,
city VARCHAR2(30) NOT NULL,
state VARCHAR2(2) NOT NULL,
email VARCHAR2(25),
cell_phone VARCHAR2(12));

CREATE TABLE movies
(title_id NUMBER(10) CONSTRAINT title_id_pk PRIMARY KEY,
title VARCHAR2(60) NOT NULL,
description VARCHAR2(400) NOT NULL,
rating VARCHAR2(4) CONSTRAINT movies_rating CHECK (rating IN ('G', 'PG','R','PG13')),
category VARCHAR2(20) CHECK (category IN ('DRAMA', 'COMEDY', 'ACTION', 'CHILD', 'SCIFI',
'DOCUMENTARY')),
release_date date NOT NULL);

CREATE TABLE media
(media_id NUMBER(10) CONSTRAINT media_id_pk PRIMARY KEY,
format VARCHAR2(3) NOT NULL,
title_id NUMBER(10) NOT NULL CONSTRAINT media_titleid_fk REFERENCES movies(title_id));

CREATE TABLE rental_history
(media_id NUMBER(10) CONSTRAINT media_id_fk REFERENCES media(media_id),
rental_date date default SYSDATE NOT NULL,
customer_id NUMBER(10) NOT NULL CONSTRAINT customer_id_fk REFERENCES customers(customer_id),
return_date date,
CONSTRAINT rental_history_pk PRIMARY KEY (media_id, rental_date));

CREATE TABLE actors
(actor_id NUMBER(10) CONSTRAINT actor_id_pk PRIMARY KEY,
stage_name VARCHAR2(40) NOT NULL,

```
last_name VARCHAR2(25) NOT NULL,
first_name VARCHAR2(25) NOT NULL,
birth_date date NOT NULL);

CREATE TABLE star_billings
(actor_id NUMBER(10) CONSTRAINT actor_id_fk REFERENCES actors(actor_id),
title_id NUMBER(10) CONSTRAINT title_id_fk REFERENCES movies(title_id),
comments VARCHAR2(40),
CONSTRAINT star_billings_pk PRIMARY KEY (actor_id, title_id));
```

Sequences:

```
CREATE SEQUENCE media_id_seq INCREMENT BY 1 START WITH 92 MAXVALUE 50000 NOCACHE NOCYCLE;
CREATE SEQUENCE title_id_seq INCREMENT BY 1 START WITH 1 MAXVALUE 50000 NOCACHE NOCYCLE;
CREATE SEQUENCE customer_id_seq INCREMENT BY 1 START WITH 101 MAXVALUE 50000 NOCACHE
NOCYCLE;
CREATE SEQUENCE actor_id_seq INCREMENT BY 1 START WITH 1001 MAXVALUE 50000 NOCACHE NOCYCLE;
```

Inserting Data:

```
INSERT INTO customers
(customer_id,last_name,first_name,home_phone,address, city, state, email,cell_phone)
VALUES
(customer_id_seq.NEXTVAL,'Palombo', 'Lisa','716-270-2669','123 Main
St','Buffalo','NY','palombo@ecc.edu','716-555-1212');
```

CUSTOMER_ID	LAST_NAME	FIRST_NAME	HOME_PHONE	ADDRESS	CITY	STATE	EMAIL	CELL_PHONE
101	Palombo	Lisa	716-270-2669	123 Main St	Buffalo	NY	palombo@ecc.edu	716-555-1212

```
INSERT INTO movies
(title_id,title,description,rating,category,release_date)
VALUES
(title_id_seq.NEXTVAL,'Remember the Titans','Story of coach and team', 'PG','DRAMA','29-SEP-2000');
```

TITLE_ID	TITLE	DESCRIPTION	RATING	CATEGORY	RELEASE_DATE
1	Remember the Titans	Story of coach and team	PG	DRAMA	29/Sep/2000

```
INSERT INTO media
(media_id, format, title_id)
VALUES
(media_id_seq.NEXTVAL,'DVD',1);
```

MEDIA_ID	FORMAT	TITLE_ID
93	DVD	1

```
INSERT INTO rental_history
(media_id, rental_date,customer_id,return_date)
VALUES
(93,default,101,sysdate+1);
```

MEDIA_ID	RENTAL_DATE	CUSTOMER_ID	RETURN_DATE
93	08/Jul/2014	101	09/Jul/2014

```
INSERT INTO actors
(actor_id,stage_name,first_name,last_name,birth_date)
VALUES
(actor_id_seq.NEXTVAL,'Brad Pitt','William','Pitt','18-DEC-1963');
```

ACTOR_ID	STAGE_NAME	LAST_NAME	FIRST_NAME	BIRTH_DATE
1001	Brad Pitt	Pitt	William	18/Dec/1963

```
INSERT INTO star_billings
(actor_id,title_id,comments)
VALUES
(1001,1,'Romantic lead');
```

ACTOR_ID	TITLE_ID	COMMENTS
1001	1	Romantic lead

Views/Indexes/Synonyms:

```
CREATE VIEW title_unavail AS SELECT m.title, e.media_id, r.rental_date, r.return_date
FROM movies m, media e, rental_history r
WHERE m.title_id = e.title_id
and r.media_id = e.media_id
and return_date is null
with read only

CREATE INDEX customer_last_name_idx ON customers(last_name);
select * from user_indexes
where index_name = 'CUSTOMER_LAST_NAME_IDX'

CREATE or replace SYNONYM tu FOR title_unavail;
select * from tu
```

TITLE	MEDIA_ID	RENTAL_DATE	RETURN_DATE
Wedding Crashers	95	08/Jul/2014	-

```
select * from USER_SYNONYMS
where synonym_name = 'TU'
```

SYNONYM_NAME	TABLE_OWNER	TABLE_NAME	DB_LINK
TU	US_7934_PLSQL_T01	TITLE_UNAVAIL	-