1. Create all the following tables and their given constraints:

L5\_MOVIES (movieid:int, title:varchar(35), year:int, director:int,score:decimal(3,2))

**ANS:** CREATE TABLE L5\_MOVIES (

mid INT PRIMARY KEY,

title VARCHAR(35) NOT NULL,

releaseYear INT NOT NULL,

director INT NOT NULL,

score DECIMAL(3,2),

CONSTRAINT SCORE\_chk CHECK (SCORE <= 5 AND SCORE >= 0)

);

Graphical user interface, text, application

Description automatically generated

L5\_ACTORS (actorid:int, name:varchar(20), lastname:varchar(30))

CREATE TABLE L5\_ACTORS (

aid int PRIMARY KEY,

firstname varchar (30) NOT NULL,

lastName varchar (30) NOT NULL

);

Graphical user interface, text, application

Description automatically generated

L5\_CASTINGS (movieid:int, actorid:int)

CREATE TABLE L5\_CASTINGS (

movieid INT,

actorid INT,

CONSTRAINT PK\_CAST PRIMARY KEY (movieid, actorid),

CONSTRAINT movieid\_fk FOREIGN KEY (movieid) REFERENCES L5\_MOVIES(mid),

CONSTRAINT actorid\_fk FOREIGN KEY (actorid) REFERENCES L5\_ACTORS(aid));

Graphical user interface, text, application, email

Description automatically generated

L5\_DIRECTORS(id:int, name:varchar(20), lastname:varchar(30))

CREATE TABLE L5\_DIRECTORS (

directorid INT PRIMARY KEY,

firstname varchar(20) NOT NULL,

lastname varchar(30) NOT NULL

);

Graphical user interface, application

Description automatically generated

1. Modify the movies table to create a foreign key constraint that refers to table directors.

ALTER TABLE L5\_MOVIES

ADD CONSTRAINT d\_fk

FOREIGN KEY (director) REFERENCES L5\_DIRECTORS(directorid);

Graphical user interface, text, application, email

Description automatically generated

1. Modify the movies table to create a new constraint so the uniqueness of the movie title is guaranteed.

ALTER TABLE L5\_MOVIES

ADD CONSTRAINT unique\_title

UNIQUE (title);

Graphical user interface, text, application, email

Description automatically generated

1. Write insert statements to add the following data to table directors and movies

INSERT ALL

INTO L5\_DIRECTORS VALUES ( 1010, 'Rob', 'Minkoff')

INTO L5\_DIRECTORS VALUES ( 1020, 'Bill', 'Condon')

INTO L5\_DIRECTORS VALUES ( 1050, 'Josh', 'Cooley')

INTO L5\_DIRECTORS VALUES ( 2010, 'Brad', 'Bird')

INTO L5\_DIRECTORS VALUES ( 3020, 'Lake', 'Bell')

SELECT \* FROM DUAL;

Graphical user interface, text, application

Description automatically generated

INSERT ALL

INTO L5\_MOVIES VALUES (100, 'The Lion King' , 2019, 3020, 3.50)

INTO L5\_MOVIES VALUES (200 ,'Beauty and the Beast', 2017, 1050, 4.20)

INTO L5\_MOVIES VALUES (300, 'Toy Story 4', 2019, 1020, 4.50)

INTO L5\_MOVIES VALUES( 400, 'Mission Impossible', 2018, 2010, 5.00)

INTO L5\_MOVIES VALUES (500, 'The Secret Life of Pets', 2016, 1010, 3.90)

SELECT \* FROM DUAL;

Graphical user interface, text, application, email

Description automatically generated

1. Write SQL statements to remove all above tables. Is the order of tables important when removing? Why?

**ANS:** Yes, order is important otherwise it will have integrity constraint error

DROP TABLE l5\_directors Cascade Constraints;

DROP TABLE l5\_castings Cascade Constraints;

DROP TABLE l5\_actors Cascade Constraints;

DROP TABLE l5\_movies Cascade Constraints;

Yes, order is important otherwise it will have integrity constraint error

Graphical user interface, text, application, email

Description automatically generated

1. Create a new empty table employee2 the same as table employees. Use a single statement to create the table and insert the data at the same time.

CREATE TABLE employee2

AS (SELECT \* FROM employees);

Graphical user interface, text, application, email

Description automatically generated

1. Modify table employee2 and add a new column username to this table. The value of this column is not required and does not have to be unique.

ALTER TABLE employee2

ADD username varchar(30);

Graphical user interface, text, application, email

Description automatically generated

1. Delete all the data in the employee2 table

TRUNCATE TABLE employee2;

Graphical user interface, text, application, email

Description automatically generated

1. Re-insert all data from the employees table into your new table employee2 using a single statement.

INSERT ALL INTO employee2 (employeenumber, lastname, firstname,extension,

email, officecode, reportsto, jobtitle)

SELECT \* FROM employees;

Graphical user interface, text, application, email

Description automatically generated

1. In table employee2, write a SQL statement to change the first name and the last name of employee with ID 1002 to your name.

UPDATE employee2

SET firstname = 'Jay',

lastname ='Chaudhari'

WHERE employeenumber = 1002;

Graphical user interface, text, application, email

Description automatically generated

1. In table employee2, generate the email address for column username for each student by concatenating the first character of employee’s first name and the employee’s last name. For instance, the username of employee Peter Stone will be pstone. NOTE: the username is in all lower case letters.

SELECT LOWER (CONCAT(SUBSTR( firstname, 1, 1), lastname))

AS username

FROM employee2;

Graphical user interface, text, application

Description automatically generated

1. In table employee2, remove all employees with office code 4. Drop table employee2.

DELETE FROM employee2

WHERE officecode =4;

DROP TABLE employee2;

Graphical user interface, text, application, email

Description automatically generated