**Lesson 1 : SELECT queries 101**

1. Find the title of each film

SELECT title FROM movies;

1. Find the director of each film

SELECT director FROM movies;

1. Find the title and director of each film

SELECT title, director FROM movies;

1. Find the title and year of each film

SELECT title, year FROM movies;

1. Find all the information about each film

SELECT \* FROM movies;

**Lesson 2 : Queries with constraints (Pt. 1)**

1. Find the movie with a row id of 6

SELECT \* FROM movies WHERE id = 6;

1. Find the movies released in the years between 2000 and 2010

SELECT \* FROM movies WHERE year BETWEEN 2000 AND 2010;

1. Find the movies not released in the years between 2000 and 2010

SELECT \* FROM movies WHERE year NOT BETWEEN 2000 AND 2010;

1. Find the first 5 Pixar movies and their release year

SELECT \* FROM movies WHERE year LIMIT 5;

**Lesson 3 : Queries with constraints (Pt. 2)**

1. Find all the Toy Story movies

SELECT title FROM movies WHERE title LIKE "Toy Story%";

1. Find all the movies directed by John Lasseter

SELECT title FROM movies WHERE director = "John Lasseter";

1. Find all the movies (and director) not directed by John Lasseter

SELECT title FROM movies WHERE director != "John Lasseter";

1. Find all the WALL-\* movies

SELECT title FROM movies WHERE title LIKE "WALL-%"

**Lesson 4 : Filtering and sorting Query results**

1. List all directors of Pixar movies (alphabetically), without duplicates

SELECT DISTINCT director FROM movies ORDER BY director;

1. List the last four Pixar movies released (ordered from most recent to least)

SELECT DISTINCT title FROM movies ORDER BY year DESC LIMIT 4;

1. List the first five Pixar movies sorted alphabetically

SELECT title FROM movies ORDER BY title LIMIT 5;

1. List the next five Pixar movies sorted alphabetically

SELECT title FROM movies ORDER BY title LIMIT 5 OFFSET 5;

**Lesson 5 : Review Simple SELECT Queries**

1. List all the Canadian cities and their populations

SELECT city, population

FROM north\_american\_cities

WHERE country = "Canada";

1. Order all the cities in the United States by their latitude from north to south

SELECT city

FROM north\_american\_cities

WHERE country = "United States"

ORDER BY latitude DESC;

1. List all the cities west of Chicago, ordered from west to east

SELECT city

FROM north\_american\_cities

WHERE longitude < -87.629798

ORDER BY longitude;

1. List the two largest cities in Mexico (by population)

SELECT city

FROM north\_american\_cities

WHERE country = "Mexico"

ORDER BY population DESC

LIMIT 2;

1. List the third and fourth largest cities (by population) in the United States and their population

SELECT city

FROM north\_american\_cities

WHERE country = "United States"

ORDER BY population DESC

LIMIT 2 OFFSET 2;

**Lesson 6 : Multi-table queries with JOINs**

1. Find the domestic and international sales for each movie

SELECT title, domestic\_sales, international\_sales

FROM movies

INNER JOIN boxoffice

ON movies.id = boxoffice.movie\_id;

1. Show the sales numbers for each movie that did better internationally rather than domestically

SELECT title, domestic\_sales, international\_sales

FROM movies

INNER JOIN boxoffice

ON movies.id = boxoffice.movie\_id

WHERE international\_sales > domestic\_sales;

1. List all the movies by their ratings in descending order

SELECT title, rating

FROM movies

INNER JOIN boxoffice

ON movies.id = boxoffice.movie\_id

ORDER BY rating DESC;

**Lesson 7 : OUTER JOINs**

1. Find the list of all buildings that have employees

SELECT DISTINCT building FROM employees;

1. Find the list of all buildings and their capacity

SELECT \* FROM buildings;

1. List all buildings and the distinct employee roles in each building (including empty buildings)

SELECT DISTINCT building\_name, role

FROM buildings

LEFT JOIN employees

ON building\_name = employees.building;

**Lesson 8 : A short note on NULLs**

1. Find the name and role of all employees who have not been assigned to a building

SELECT name, role FROM employees WHERE building IS NULL;

1. Find the names of the buildings that hold no employees

SELECT DISTINCT building\_name

FROM buildings

LEFT JOIN employees

ON building\_name = employees.building

WHERE employees.building IS NULL;

**Lesson 9 : Queries with expressions**

1. List all movies and their combined sales in millions of dollars

SELECT DISTINCT

title,

(domestic\_sales + international\_sales) / 1000000 AS sales

FROM movies

INNER JOIN boxoffice

ON movies.id = boxoffice.movie\_id;

1. List all movies and their ratings in percent

SELECT DISTINCT

title,

(rating \* 10) AS rate\_percent

FROM movies

INNER JOIN boxoffice

ON movies.id = boxoffice.movie\_id;

1. List all movies that were released on even number years

SELECT title FROM movies WHERE year % 2 = 0;