



# Practical Assignment

## Aims

- Implement some basic to intermediate SQL queries for the database schema.
- Create database views.

## The Scenario

In this assignment you will be constructing an SQL script that builds a series of database views from the DBMS you created in Practical Assignment 1.

You have been tasked by the owners of MovieDirect, a small retailer and online streaming platform, to re-develop their orders and shipments database system. Currently, the system uses four separate spreadsheets to keep track of customers, movies, stock that is currently available and shipments out to the customers. This system is starting to become difficult to use and will prevent MovieDirect from effectively managing its long-term operations in its current state.

Your task was to develop a robust and scalable database solution for the information system that will effectively store MovieDirect's information and provide the capabilities for extracting information to improve sales and management of customers. You should have completed this as part of assignment 1, your next task is to create a set of user views to extract meaningful information from the live database.

For this assignment, transaction data and a user view template will be provided, make sure to utilise these to check your solution.

Your first task was to develop a database using the PostgreSQL DBMS, which will contain four tables (Customers, Shipments, Movies and stock) linked together.

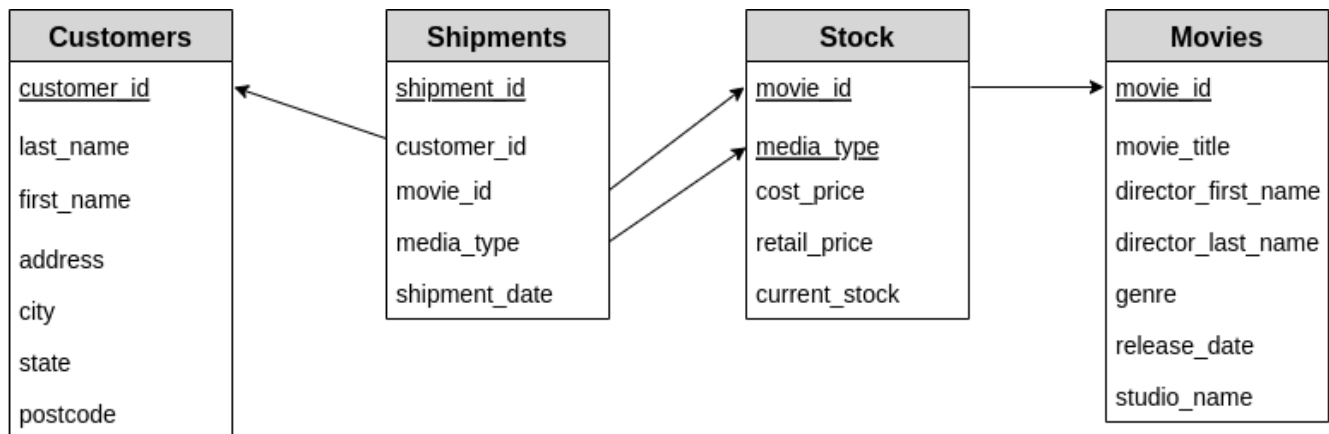


Figure 1. The database schema for MovieDirect.

The SQL script to import data into your completed database is available here:

[http://turing.une.edu.au/~cosc210/assignments/a4/MovieDirect\\_Data.sql](http://turing.une.edu.au/~cosc210/assignments/a4/MovieDirect_Data.sql)

## Exercise 2 – A set of user views with SQL queries.

Please make sure that you complete your user views using the template that is provided. Your assignment will be marked with the assistance of automated tools and if the names of the views and their attributes are not correct, you may lose marks.

The assignment template is available here: [http://turing.une.edu.au/~cosc210/assignments/a4/p\\_template.sql](http://turing.une.edu.au/~cosc210/assignments/a4/p_template.sql)

## Question Set

Construct an SQL script (i.e. a file with the .sql extension) that contains the definitions of the following views.

1. Create a view called 'movie\_summary' which returns the movie\_title, release\_date, media\_type and retail\_price for all movies in the database. This will contain some duplicates for media\_type. **(10 Mark)**
2. Create a view called 'old\_shipments' that lists the customer first\_name and last\_name, movie\_id, shipment\_id and shipment\_date for every shipment before 2010. **(10 Mark)**
3. Create a view called 'richie' that Returns a list of all movies directed by Ron Howard. **(10 Mark)**
4. Create a view called 'retail\_price\_hike' that returns the movie\_id , retail\_price and a final column that contains the retail price increased by 25%. **(10 Mark)**
5. Create a view called 'profits\_from\_movie' that returns the movie\_id and movie\_title for each movie along with the difference between the sum of the cost and retail values across all shipments for each movie. The results should be grouped by movie\_title. **(10 Mark)**
6. Create a view called 'binge\_watcher' that returns a list of customers (first\_name and last\_name) that have hired more than one movie on the same date. **(10 Mark)**
7. Create a view called 'the\_sith' that returns the first name, last name of any customer who has **not** purchased any media\_type of the movie named ". **(15 Marks)**
8. Create a view called 'sole\_angry\_man' that returns the first\_name and last\_name of any customer (If one exists) who is the only customer to buy '12 Angry Men' (Note the customer may buy other movies as well, but if anyone else buys the movie, no records should be returned). **(15 Marks)**

Make sure to test your scripts on turing.une.edu.au and utilise the template and import script provided.

## Assignment Submission

You should submit one file for this assignment:

- An sql file named in the format: exercise\_2\_<username>.sql (e.g. exercise\_2\_esadgro2.sql)
- Submit your assignment via turing.une.edu's submit program.
- **You should submit your assignment to the p2 assignment.**
- The instructions for submit are available [here](#)

## Marking

Item	Marks
<b>Admin</b>	<b>- /10</b>
Files named correctly	- /4
SQL script runs without errors (Ex2)	- /6
<b>Exercise 2</b>	<b>- /90</b>
PSQL User View Question 1	- /10
PSQL User View Question 2	- /10
PSQL User View Question 3	- /10
PSQL User View Question 4	- /10
PSQL User View Question 5	- /10
PSQL User View Question 6	- /10
PSQL User View Question 7	- /15
PSQL User View Question 8	- /15