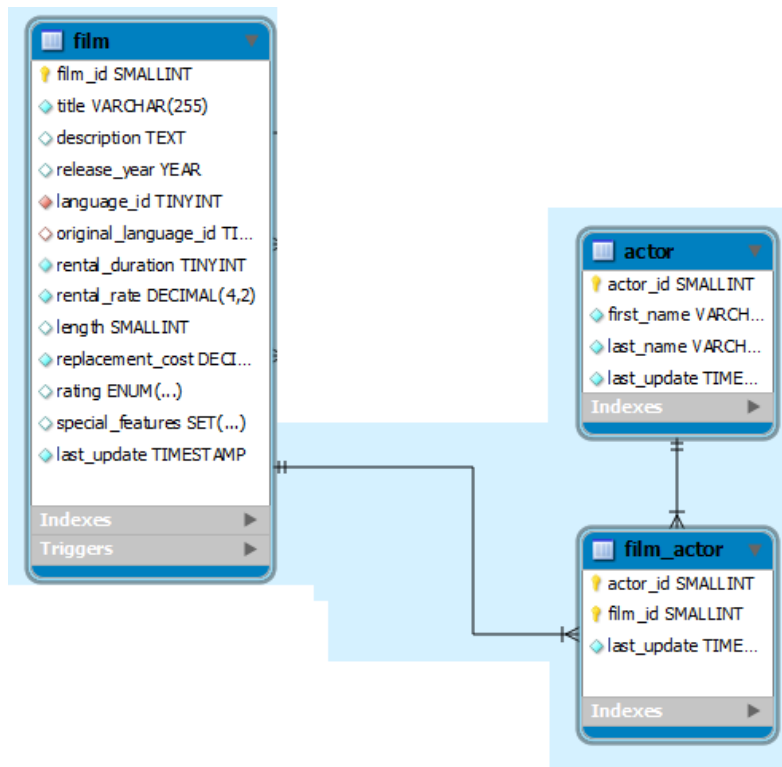


In-Class Exercise: SQL

To do this exercise, you will be working with a movie rental database. The schema for this database is provided on the accompanying document. All of the tables are in a schema called “moviedb.” You can’t write to any of the tables – you can only use SELECT statements to read from them (so don’t worry about causing any damage).

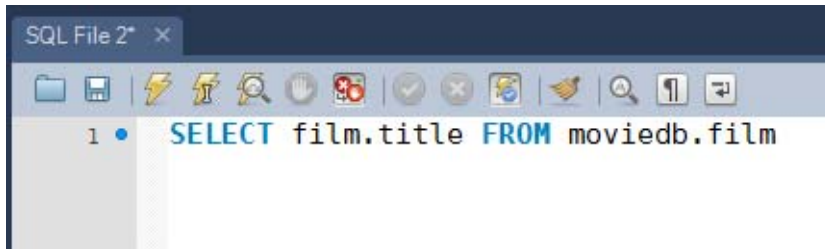
Spend some time looking at the schema carefully. The field names are pretty self-explanatory. For example, here are two tables:



You can see that a film has a title, description, rating, and length (among other things). You can also see that an actor has a first name and a last name. The `film_actor` table implements the many-to-many relationship between actor and film (i.e., a film can have more than one actor, and an actor can be in more than one film). You’ll also notice that data types are listed for each field, but they should be pretty obvious – for example, `first_name` is a VARCHAR because it is a string value.

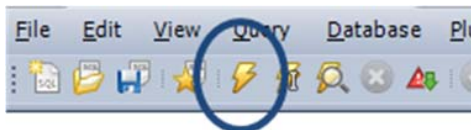
In MySQL Workbench, open the connection to the class1 server using your username and password. Click on the “moviedb” schema to see the list of tables.

Now try a simple query. In the SQL File pane, type the following:



```
1 • SELECT film.title FROM moviedb.film
```

And then click the Execute SQL Script button (the lightning bolt):



And you'll see a list of all movie titles (this is just the first few):

	title
▶	ACADEMY DINOSAUR
	ACE GOLDFINGER
	ADAPTATION HOLES
	AFFAIR PREJUDICE
	AFRICAN EGG
	AGENT TRUMAN
	AIRPLANE SIERRA
	AIRPORT POLLOCK
	ALABAMA DEVIL
	ALADDIN CALENDAR
	ALAMO VIDEOTAPE
	ALASKA PHANTOM

So now, on the following page you're going to create a series of SQL SELECT queries to answer questions about the information in this database. Some of the questions can be answered by querying one table; others will require joining multiple tables to get the answer.

For each question you'll write down the SQL query (which you can copy and paste it from SQL Workbench) and the answer you get as a result of the query (which you can copy and paste from the results).

1. Which actors have the first name of "Nick"?
2. How many G movies are in the database?
3. What is the length of the film "Apollo Teen"?
4. How many customers are there in the movie database?
5. Are R movies, on average, longer than PG movies? Prove it!

6. How many movies are in English?

7. In which films did Bob Fawcett star?
(create a query to get them all, but only list the first five)

8. How many movies has the customer Melissa King rented?

FOR AN EXTRA CHALLENGE!

How many customer have a first name that starts with 'W'?

Two hints:

1) You can use LIKE with a WHERE clause, like this:

```
SELECT fieldname FROM tablename WHERE fieldname LIKE value
```

LIKE looks for close matches, not exact ones like = does.

2) You can use % as a wildcard value. So LIKE 'ap%' will match with "apple," "application," "apex," etc.

