**In-Class Exercise: SQL #1  
Getting Information out of a Database (SOLUTION)**

1. Which actors have the first name of “Nick”?

|  |  |
| --- | --- |
| **SELECT first\_name, last\_name**  **FROM moviedb.actor**  **WHERE first\_name='Nick';** | **Nick Wahlberg**  **Nick Stallone**  **Nick Degeneres** |

1. What is the length and description of the film “Grit Clockwork”?

|  |  |
| --- | --- |
| **SELECT length, description**  **FROM moviedb.Film**  **WHERE title=”Grit Clockwork”;** | **137 “A Thoughtful Display of a Dentist And a Squirrel who must Confront a Lumberjack in A Shark Tank”** |

1. How many G movies are in the database?

|  |  |
| --- | --- |
| **SELECT COUNT(\*)  FROM moviedb.Film  WHERE rating='G';** | **178** |

1. What is the title and length of the longest movie in the database (assume there’s only one with the longest value and use LIMIT)?

|  |  |
| --- | --- |
| **SELECT title, length FROM moviedb.film**  **ORDER BY length DESC LIMIT 1;** | **185** |

Now assume there could be more than one movie with the longest value and use a subselect with the MAX() function to find the movies with the greatest length.

|  |  |
| --- | --- |
| **SELECT title,length FROM moviedb.film**  **WHERE length = (SELECT MAX(length) FROM moviedb.film);** | **185**  **CHICAGO NORTH**  **CONTROL ANTHEM**  **DARN FORRESTER**  **GANGS PRIDE**  **HOME PITY**  **MUSCLE BRIGHT**  **POND SEATTLE**  **SOLDIERS EVOLUTION**  **SWEET BROTHERHOOD**  **WORST BANGER** |

1. Are R movies, on average, longer than PG movies? Prove it! ***(HINT: Use GROUP BY)***

|  |  |
| --- | --- |
| **In this query first figure out which table the fields rating and length exist in.**  **Once you figure that out select the rating and the average length for the different groups of ratings.**  **SELECT rating, AVG(length)  FROM moviedb.film  GROUP BY rating;** | **Yes. PG = 112 minutes versus R = 118 minutes** |

1. How many movies are in English?  
   ***(HINT: The name field in the language table contains the film language names.)***

|  |  |
| --- | --- |
| **First find the table from the schema (the listing on the left panel in MySQL) where the language codes map on to the actual language names.**  **To get the solution, join the films to the language names (what is the common field between the film table and the language codes table?). Be sure to select the count of the number of observations and specify the language name as ‘English’**  **The language is a command used by SQL so you may want to put it in `` (quotes near the escape key).**  **SELECT COUNT(\*)  FROM moviedb.film, moviedb.`language`  WHERE film.language\_id = `language`.language\_id**  **AND `language`.`name`='English';** | **887** |

1. In which films did Bob Fawcett star (only return the first five)?

|  |  |
| --- | --- |
| **In this query, first understand that actor names are stored in the actor table (the mapping is given on the 1st page of the handout). You will need to join this to the film table (as the film table is a listing of all the films and you need to count the number of films that the actor has been in). Look at the common attributes between the actor and the film table.**  **If there are no common attributes between the tables, look at a table in the middle that would have common attributes that you could join over.**  **If you have multiple joins, first join from the actor table to the film\_actor table(looking at the common attribute) and then join to the film\_actor table to the film table (looking at the common attribute).**  **Ignore the last\_update field.**  **SELECT title  FROM moviedb.actor, moviedb.film, moviedb.film\_actor WHERE**  **actor.actor\_id = film\_actor.actor\_id  AND film.film\_id = film\_actor.film\_id**  **AND actor.first\_name='Bob' AND actor.last\_name='Fawcett'**  **LIMIT 5;** | **ACE GOLDFINGER, ADAPTATION HOLES,**  **CHINATOWN GLADIATOR,**  **CIRCUS YOUTH,**  **CONTROL ANTHEM** |

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

|  |  |
| --- | --- |
| **The next two commands use tables that have not been described on the first page. First examine the tables in the schema – and identify tables that you would want to use in the query (you need a table that has customer information and one table that has rental information from the customer. To see what information a table has you can use the SELECT \* FROM ………………. ; command to get a sense of the type of data it has)**  **Once you have identified the tables, identify the columns that are common between the two tables and then join the two tables together using these columns. Make sure you count the observations for the relevant customer.**  **SELECT COUNT(\*) FROM moviedb.customer, moviedb.rental**  **WHERE rental.customer\_id = customer.customer\_id**  **AND customer.first\_name = 'Melissa'**  **AND customer.last\_name = 'King';** | **34** |

1. How many customers have a first name that starts with ‘W’?

|  |  |
| --- | --- |
| **Check out the hint for this question! Its relatively easy (no complicated joining or anything) and try a few different commands till you get it. Count the number of observations and look at the hint for the where clause! Best of luck!**  **SELECT COUNT(customer.first\_name)**  **FROM moviedb.customer**  **WHERE customer.first\_name LIKE 'w%';** | **13** |