

Exercises 1

1. Display the first and last name of each actor in a single column in upper case letters in alphabetic order. Name the column Actor Name.

```
mysql> select UPPER(CONCAT(first_name," ",last_name)) Actor_name from actor order by Actor_name;
+-----+
| Actor_name |
+-----+
| ADAM GRANT |
| ADAM HOPPER |
| AL GARLAND |
| ALAN DREYFUS |
| ALBERT JOHANSSON |
| ALBERT MOLTE |
| ALEC MAYNE |
| ANGELA HUDSON |
| ANGELA MITHERSPOON |
| ANGELINA ASTAINE |
| ANNE CROWYN |
| AUDREY BAILEY |
| AUDREY OLIVIER |
| BELA MALKEN |
| BEN HARRIS |
| BEN MOLLIS |
| BETTE NICHOLSON |
| BOB FANCETT |
| BURT DUKAKIS |
| BURT ROSEY |
| BURT TEMPLE |
| CAMERON STREEP |
| CAMERON WRAY |
| CAMERON ZELLWEGER |
| CARMEN HUNT |
| CARY MCCONAUGHEY |
| CATE HARRIS |
| CATE MOQUEEN |
| CHARLIZE DENCH |
| CHRIS BRIDGES |
| CHRIS DEPP |
| CHRISTIAN ANKROYD |
| CHRISTIAN GABLE |
| CHRISTIAN REESON
```

2. Find all actors whose last name contain the letters GEN:

```
mysql> select * from actor WHERE UPPER(last_name) LIKE '%GEN%';
+-----+-----+-----+-----+
| actor_id | first_name | last_name | last_update |
+-----+-----+-----+-----+
| 14 | VIVIEN | BERGEN | 2006-02-15 04:34:33 |
| 41 | JODIE | DEGENERES | 2006-02-15 04:34:33 |
| 107 | GINA | DEGENERES | 2006-02-15 04:34:33 |
| 166 | NICK | DEGENERES | 2006-02-15 04:34:33 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

3. Using IN, display the country_id and country columns of the following countries: Afghanistan, Bangladesh, and China:

```
mysql> SELECT country_id,country FROM country WHERE country IN ('Afghanistan','Bangladesh','China');
+-----+-----+
| country_id | country |
+-----+-----+
|          1 | Afghanistan |
|         12 | Bangladesh |
|         23 | China |
+-----+-----+
3 rows in set (0.00 sec)
```

4. List the last names of actors, as well as how many actors have that last name.

```
mysql> SELECT Last_name,COUNT(*) Actor_count FROM actor GROUP BY last_name ORDER BY last_name,Actor_count;
+-----+-----+
| last_name | Actor_count |
+-----+-----+
| AKROYD    | 3 |
| ALLEN     | 3 |
| ASTAIRE   | 1 |
| BACALL    | 1 |
| BAILEY    | 2 |
| BALE      | 1 |
| BALL      | 1 |
| BARRYMORE | 1 |
| BASINGER  | 1 |
| BENING    | 2 |
| BERGEN    | 1 |
| BERGMAN   | 1 |
| BERRY     | 3 |
| BIRCH     | 1 |
| BLOOM     | 1 |
| BOLGER    | 2 |
| BRIDGES   | 1 |
| BRODY     | 2 |
| BULLOCK   | 1 |
| CAGE      | 2 |
| CARREY    | 1 |
| CHAPLIN   | 1 |
| CHASE     | 2 |
| CLOSE     | 1 |
| COSTNER   | 1 |
| CRAWFORD  | 2 |
| CROLYN    | 2 |
| CRONE     | 1 |
| CRUISE    | 1 |
| CRUZ      | 1 |
```

5. List last names of actors and the number of actors who have that last name, but only for names that are shared by at least two actors

```
mysql> SELECT last_name,COUNT(*) Actor_count FROM actor GROUP BY last_name HAVING Actor_count >=2 ORDER BY last_name,Actor_count;
```

last_name	Actor_count
AKROYD	3
ALLEN	3
BAILEY	2
BENING	2
BERRY	3
BOUGER	2
BRODY	2
CAGE	2
CHASE	2
CRAWFORD	2
CROWYN	2
DAVIS	3
DEAN	2
DEE	2
DEGENERES	3
DENCH	2
DEPP	2
DUKAKIS	2
FANCKETT	2
GARLAND	3
GOODING	2
GUINNESS	3
HACKMAN	2
HARRIS	3
HOFFMAN	3
HOPKINS	3
HOPPER	2
JACKMAN	2
JOHANSSON	3
KEITEL	3
KILMER	5
MCCONAUGHEY	2
MCKELLEN	2
MCQUEEN	2
MONROE	2
MOSTEL	2
NEESON	2
NOLTE	4
OLIVIER	2

6. The actor HARPO WILLIAMS was accidentally entered in the actor table as GROUCHO WILLIAMS. Write a query to fix the record.

```
mysql> select * from actor where last_name='WILLIAMS' AND first_name='HARPO';
```

actor_id	first_name	last_name	last_update
172	HARPO	WILLIAMS	2023-06-09 15:50:47

1 row in set (0.00 sec)

```
mysql> UPDATE actor SET first_name='GROUCHO', last_name='WILLIAMS' where actor_id=172;
```

Query OK, 1 row affected (0.08 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from actor where last_name='WILLIAMS' AND first_name='GROUCHO';
```

actor_id	first_name	last_name	last_update
172	GROUCHO	WILLIAMS	2023-06-09 15:51:43

1 row in set (0.00 sec)

```
mysql>
```

7. Use JOIN to display the first and last names, as well as the address, of each staff member. Use the tables staff and address:

```
mysql> select address,first_name,last_name from staff s inner join address a ON s.address_id=a.address_id;
```

address	first_name	last_name
23 Workhaven Lane	Mike	Hillyer
1411 Lillydale Drive	Jon	Stephens

2 rows in set (0.04 sec)

```
mysql>
```

8. List each film and the number of actors who are listed for that film. Use tables film_actor and film. Use inner join.

```
mysql> select title,count(actor_id) actor_count from film f inner join film_actor a ON f.film_id=a.film_id group by title order by title, actor_count;
```

title	actor_count
ACADEMY DINOSAUR	10
ACE GOLDFINGER	4
ADAPTATION HOLES	6
AFFAIR PREJUDICE	5
AFRICAN EGG	5
AGENT TRUMAN	7
AIRPLANE SIERRA	6
AIRPORT POLLOCK	4
ALABAMA DEVIL	9
ALADDIN CALENDAR	8
ALAMO VIDEOTAPE	4
ALASKA PHANTOM	7
ALI FOREVER	5
ALICE FANTASIA	4
ALIEN CENTER	6
ALLEY EVOLUTION	5
ALONE TRIP	8
ALTER VECTORY	4
AMADUS HOLY	6
AMELIE HELIFIGHTERS	6
AMERICAN CIRCUS	5
AMSTAD MIDSUMMER	4
ANACONDA CONFESSIONS	6
ANALYZE HOOSIERS	5
ANGELS LIFE	7
ANGIE IDENTITY	3
ANONYMOUS HUMAN	9
ANTHER LIKE	2
ANTI TRUST TOMATOES	7
ANYTHING SAVANNAH	3
APACHE DOWING	4
APOCALYPSE FLAMINGOS	5
APOLLO TEEN	8
ARABIA DOOMA	12
ARACHNOMANIA BOLLES/OWSTER	9

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9. How many copies of the film Hunchback Impossible exist in the inventory system?

```
mysql> select title,film_id from film where title IN ('Hunchback Impossible');
```

title	film_id
HUNCHBACK IMPOSSIBLE	439

1 row in set (0.00 sec)

```
mysql> select film_id,count(invetory_id) count from inventory where film_id=439;
```

```
ERROR 1054 (42S22): Unknown column 'invetory_id' in 'field list'
```

```
mysql> select film_id,count(inventory_id) count from inventory where film_id=439;
```

film_id	count
439	6

1 row in set (0.04 sec)

10. Using the tables payment and customer and the JOIN command, list the total paid by each customer. List the customers alphabetically by last name

```
mysql> select c.customer_id,concat(first_name," ",last_name) NAME,SUM(amount) TOTAL from customer c INNER JOIN payment p ON P.customer_id=c.customer_id GROUP BY customer_id ORDER BY NAME;
```

customer_id	NAME	TOTAL
375	AARON SELBY	118.76
367	ADAM GOODH	101.78
525	ADRIAN CLARY	74.81
217	AGNES BISHOP	98.77
389	ALAN KAHN	124.74
352	ALBERT CROUSE	99.77
588	ALBERTO HENNING	66.79
454	ALEX BRESHAM	151.87
430	ALEXANDER PENNELL	151.84
423	ALFRED CASILLAS	128.74
567	ALFREDO MCADAMS	85.88
51	ALICE STEWART	138.67
152	ALICIA MILLS	83.79
548	ALLAN CORNISH	79.81
412	ALLEN BUTTERFIELD	85.79
228	ALLISON STANLEY	92.73
186	ALMA AUSTIN	151.85
487	ALVIN DELOWICH	139.71
48	AMANDA CARTER	118.73
139	AMBER DIXON	113.73
32	AMY LOPEZ	127.71
181	ANA BRADLEY	174.66
515	ANDRE RAPP	126.72
81	ANDREA HENDERSON	93.78
333	ANDREW PURDY	189.73
582	ANDY WARHORN	112.75
583	ANGEL BARCLAY	115.88
29	ANGELA HERNANDEZ	148.84
134	ANITA MORALES	62.85

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11. The music of Queen and Kris Kristofferson have seen an unlikely resurgence. As an unintended consequence, films starting with the letters **K** and **Q** have also soared in popularity. Use subqueries to display the titles of movies starting with the letters **K** and **Q** whose language is English.

```
mysql> select TITLE from film where (title like 'Q%') OR (title like 'K%');
```

TITLE
KANE EXORCIST
KARATE MOON
KENTUCKIAN GIANT
KICK SAVANNAH
KILL BROTHERHOOD
KILLER INNOCENT
KING EVOLUTION
KISS GLORY
KISSING DOLLS
KNOCK WARLOCK
KRAMER CHOCOLATE
KWAI HOMEWARD
QUEEN LUKE
QUEST MUSSOLINI
QUILLS BULL

15 rows in set (0.00 sec)

12. Use subqueries to display all actors who appear in the film **Alone Trip**.

```
mysql> SELECT CONCAT(first_name, ' ',last_name) NAME from actor where actor_id IN (select actor_id from film_actor where film_id IN (select film_id from film where title = 'Alone Trip'));
```

NAME
ED CHASE
KARL BERRY
UMA WOOD
WOODY DOLTE
SPENCER DEPP
CHRIS DEPP
LAURENCE BULLOCK
RENEE BALL

8 rows in set (0.06 sec)

13. You want to run an email marketing campaign in Canada, for which you will need the names and email addresses of all Canadian customers. Use joins to retrieve this information.

```
mysql> select concat(first_name, ' ',last_name)CUSTOMER_NAME,email,country from country c left join customer cu ON c.country_id=cu.customer_id where country='Canada';
```

CUSTOMER_NAME	email	country
SHARON ROBINSON	SHARON.ROBINSON@sakilacustomer.org	Canada

1 row in set (0.00 sec)

14. Sales have been lagging among young families, and you wish to target all family movies for a promotion. Identify all movies categorised as family films.

```
mysql> SELECT title, category
-> FROM film_list
-> WHERE category = 'Family';
```

title	category
AFRICAN EGG	Family
APACHE DIVINE	Family
ATLANTIS CAUSE	Family
BAKED CLEOPATRA	Family
BANG KWAI	Family
BEDAZZLED MARRIED	Family
BILKO ANONYMOUS	Family
BLANKET BEVERLY	Family
BLOOD ARGONAUTS	Family
BLUES INSTINCT	Family
BRAVEHEART HUMAN	Family
CHASING FIGHT	Family
CHISUM BEHAVIOR	Family
CHOCOLAT HARRY	Family
CONFUSED CANDLES	Family
CONVERSATION DOWNHILL	Family
DATE SPEED	Family
DINOSAUR SECRETARY	Family
DUMBO LUST	Family
EARRING INSTINCT	Family
EFFECT GLADIATOR	Family
FEUD FROGMEN	Family
FINDING ANACONDA	Family
GABLES METROPOLIS	Family
GANDHI KWAI	Family
GLADIATOR WESTWARD	Family
GREASE YOUTH	Family
HALF OUTFIELD	Family
HOCUS FRIDA	Family
HOMICIDE PEACH	Family
HOUSE DYNAMITE	Family
HUNTING MUSKETEERS	Family
INDIAN LOVE	Family

15. Create a Stored procedure to get the count of films in the input category (IN category_name, OUT count)

```

mysql> CREATE PROCEDURE GetFilmCountByCategory(
->   ->   IN category_name VARCHAR(100),
->   ->   OUT count INT
->   -> )
->   -> BEGIN
->   -> select count(*) into count from film_category fc inner join category c ON fc.category_id=c.category_id where c.name=category_name;
->   -> end //
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '->   IN category_name VARCHAR(100),
->   -> OUT count INT
->   -> ]
->   -> B' at line 2
mysql> delimiter //
mysql> CREATE PROCEDURE GetFilmCountByCategory(
->   ->   IN category_name VARCHAR(100),
->   ->   OUT count INT
->   -> )
->   -> BEGIN
->   -> select count(*) into count from film_category fc inner join category c ON fc.category_id=c.category_id where c.name=category_name;
->   -> end //
Query OK, 0 rows affected (0.07 sec)

mysql> delimiter ;
mysql> call GetFilmCountByCategory('Action',@count);
Query OK, 1 row affected (0.00 sec)

mysql> select @count;
+-----+
| @count |
+-----+
|      64 |
+-----+
1 row in set (0.00 sec)

```

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16. Display the most frequently rented movies in descending order



17. Write a query to display for each store its store ID, city, and country.



18. List the genres and its gross revenue.



19. Create a View for the above query(18)



20. Select top 5 genres in gross revenue view.

