

- 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> use sakila
Database changed
mysql> show full tables;
+-----+-----+
| Tables_in_sakila | Table_type |
+-----+-----+
| actor             | BASE TABLE |
| actor_info        | VIEW        |
| address           | BASE TABLE |
| category          | BASE TABLE |
| city              | BASE TABLE |
| country           | BASE TABLE |
| customer           | BASE TABLE |
| customer_list     | VIEW        |
| film              | BASE TABLE |
| film_actor        | BASE TABLE |
| film_category     | BASE TABLE |
| film_list         | VIEW        |
| film_text         | BASE TABLE |
| inventory         | BASE TABLE |
| language          | BASE TABLE |
| nicer_but_slower_film_list | VIEW        |
| payment           | BASE TABLE |
| rental            | BASE TABLE |
| sales_by_film_category | VIEW        |
| sales_by_store    | VIEW        |
| staff             | BASE TABLE |
| staff_list        | VIEW        |
| store             | BASE TABLE |
+-----+-----+
23 rows in set (0.83 sec)

mysql> select COUNT(*) FROM film;
+-----+
| COUNT(*) |
+-----+
|      1000 |
+-----+
```

```
mysql> SELECT CONCAT(UPPER(first_name), ' ', UPPER(last_name)) AS `Actor Name`
-> FROM actor
-> ORDER BY `Actor Name`;
```

Actor Name
ADAM GRANT
ADAM HOPPER
AL GARLAND
ALAN DREYFUSS
ALBERT JOHANSSON
ALBERT NOLTE
ALEC WAYNE
ANGELA HUDSON
ANGELA WITHERSPOON
ANGELINA ASTAIRE
ANNE CRONYN
AUDREY BAILEY
AUDREY OLIVIER
BELA WALKEN
BEN HARRIS
BEN WILLIS
BETTE NICHOLSON
BOB FAWCETT
BURT DUKAKIS
BURT POSEY
BURT TEMPLE
CAMERON STREEP
CAMERON WRAY
CAMERON ZELLWEGER
CARMEN HUNT
CARY MCCONAUGHEY
CATE HARRIS
CATE MCQUEEN
CHARLIZE DENCH
CHRIS BRIDGES
CHRIS DEPP
CHRISTIAN AKROYD
CHRISTIAN GABLE
CHRISTIAN NEESON
CHRISTOPHER BERRY
CHRISTOPHER WEST
CUBA ALLEN

Find all actors whose last name contain the letters GEN:

```
mysql> SELECT *
-> FROM actor
-> WHERE 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)

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

```
mysql>
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 (0.08 sec)

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

```
mysql> SELECT last_name, COUNT(*) AS actor_count
-> FROM actor
-> GROUP BY last_name
-> ORDER BY actor_count DESC, last_name;
```

last_name	actor_count
KILMER	5
NOLTE	4
TEMPLE	4
AKROYD	3
ALLEN	3
BERRY	3
DAVIS	3
DEGENERES	3
GARLAND	3
GUINNESS	3
HARRIS	3
HOFFMAN	3
HOPKINS	3
JOHANSSON	3
KEITEL	3
PECK	3
TORN	3
WILLIAMS	3
WILLIS	3
ZELLWEGER	3
BAILEY	2
BENING	2
BOLGER	2
BRODY	2
CAGE	2
CHASE	2
CRAWFORD	2
CROWYN	2
DEAN	2
DEE	2
DENCH	2
DEPP	2
DUKAKIS	2
FAWCETT	2
GOODING	2
HACKMAN	2
HOPPER	2

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- 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

```
Database changed
mysql> SELECT last_name, COUNT(*) AS actor_count
-> FROM actor
-> GROUP BY last_name
-> HAVING actor_count >= 2
-> ORDER BY actor_count DESC, last_name;
```

last_name	actor_count
KILMER	5
NOLTE	4
TEMPLE	4
AKROYD	3
ALLEN	3
BERRY	3
DAVIS	3
DEGENERES	3
GARLAND	3
GUTNESS	3
HARRIS	3
HOFFMAN	3
HOPKINS	3
JOHANSSON	3
KEITEL	3
PECK	3
TORR	3
WILLIAMS	3
WILLIS	3
ZELLWEGER	3
BAILEY	2
BENING	2
BOLGER	2
BRODY	2
CAGE	2
CHASE	2
CRAWFORD	2
CROWNH	2
DEAN	2
DEE	2
DENCH	2
DEPP	2
DUKAKIS	2
FAMCETT	2
GOODING	2

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

```
mysql> UPDATE actor
-> SET first_name = 'HARPO', last_name = 'WILLIAMS'
-> WHERE first_name = 'GROUCHO' AND last_name = 'WILLIAMS';
Query OK, 1 row affected (0.46 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT *
-> FROM actor
-> WHERE first_name = 'HARPO' AND last_name = 'WILLIAMS';
```

actor_id	first_name	last_name	last_update
172	HARPO	WILLIAMS	2024-03-07 23:08:00

1 row in set (0.00 sec)

- 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
-> staff.first_name,
-> staff.last_name,
-> address.address
-> FROM
-> staff
-> JOIN
-> address ON staff.address_id = address.address_id;
```

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

2 rows in set (0.14 sec)

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- 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
->   film.film_id,
->   film.title AS film_title,
->   COUNT(film_actor.actor_id) AS actor_count
-> FROM
->   film
-> INNER JOIN
->   film_actor ON film.film_id = film_actor.film_id
-> GROUP BY
->   film.film_id, film.title
-> ORDER BY
->   film.film_id;
```

film_id	film_title	actor_count
1	ACADEMY DINOSAUR	10
2	ACE GOLDFINGER	4
3	ADAPTATION HOLES	5
4	AFFAIR PREJUDICE	5
5	AFRICAN EGG	5
6	AGENT TRUMAN	7
7	AIRPLANE SIERRA	5
8	AIRPORT POLLOCK	4
9	ALABAMA DEVIL	9
10	ALADDIN CALENDAR	8
11	ALAMO VIDEOTAPE	4
12	ALASKA PHANTOM	7
13	ALI FOREVER	5
14	ALICE FANTASIA	4
15	ALIEN CENTER	6
16	ALLEY EVOLUTION	5
17	ALONE TRIP	8
18	ALTER VICTORY	4
19	AMADEUS HOLY	6
20	AMELIE HELLFIGHTERS	6
21	AMERICAN CIRCUS	5
22	AMISTAD MIDSUMMER	4
23	ANACONDA CONFESSIONS	5
24	ANALYZE HOOSIERS	5
25	ANGELS LIFE	9
26	ANNIE IDENTITY	3
27	ANONYMOUS HUMAN	9
28	ANTHEM LUKE	2
29	ANTITRUST TOMATOES	7

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

```
mysql> SELECT
->   film.title AS film_title,
->   COUNT(inventory.inventory_id) AS copy_count
-> FROM
->   film
-> JOIN
->   inventory ON film.film_id = inventory.film_id
-> WHERE
->   film.title = 'Hunchback Impossible'
-> GROUP BY
->   film.title;
```

film_title	copy_count
HUNCHBACK IMPOSSIBLE	6

1 row in set (0.21 sec)

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- 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,
->   c.last_name,
->   c.first_name,
->   COALESCE(SUM(p.amount), 0) AS total_paid
-> FROM
->   customer c
-> LEFT JOIN
->   payment p ON c.customer_id = p.customer_id
-> GROUP BY
->   c.customer_id, c.last_name, c.first_name
-> ORDER BY
->   c.last_name, c.first_name;
```

customer_id	last_name	first_name	total_paid
505	ABNEY	RAFAEL	97.79
504	ADAM	NATHANIEL	133.72
36	ADAMS	KATHLEEN	92.73
96	ALEXANDER	DIANA	105.73
470	ALLARD	GORDON	160.68
27	ALLEN	SHIRLEY	126.69
220	ALVAREZ	CHARLENE	114.73
11	ANDERSON	LISA	106.76
326	ANDREW	JOSE	96.75
183	ANDREWS	IDA	76.77
449	AQUINO	OSCAR	99.80
368	ARCE	HARRY	157.65
560	ARCHULETA	JORDAN	132.70
188	ARMSTRONG	MELANIE	92.75
170	ARNOLD	BEATRICE	119.74
591	ARSENAULT	KENT	134.73
345	ARTIS	CARL	106.77
530	ASHCRAFT	DARRYL	76.77
540	ASHER	TYRONE	112.76
196	AUSTIN	ALMA	151.65
60	BAILEY	MILDRED	98.75
37	BAKER	PAMELA	95.77
383	BALES	MARTIN	103.73
559	BANDA	EVERETT	110.72
215	BANKS	JESSIE	91.74
551	BARBEE	CLAYTON	96.74
503	BARCLAY	ANGEL	115.68

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- 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
-> (LEFT(title, 1) = 'K' OR LEFT(title, 1) = 'Q')
-> AND film_id IN (
-> SELECT film_id
-> FROM language
-> WHERE name = 'English'
-> );
```

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 (0.21 sec)

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

```
mysql> SELECT actor_id, first_name, last_name
-> FROM actor
-> WHERE actor_id IN (
-> SELECT actor_id
-> FROM film_actor
-> WHERE film_id = (
-> SELECT film_id
-> FROM film
-> WHERE title = 'Alone Trip'
-> )
-> );
```

actor_id	first_name	last_name
3	ED	CHASE
12	KARL	BERRY
13	UMA	WOOD
82	WOODY	JOLIE
100	SPENCER	DEPP
160	CHRIS	DEPP
167	LAURENCE	BULLOCK
187	RENEE	BALL

8 rows in set (0.06 sec)

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- 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
-> customer.first_name,
-> customer.last_name,
-> customer.email
-> FROM
-> customer
-> JOIN
-> address ON customer.address_id = address.address_id
-> JOIN
-> city ON address.city_id = city.city_id
-> JOIN
-> country ON city.country_id = country.country_id
-> WHERE
-> country.country = 'Canada';
```

first_name	last_name	email
DERRICK	BOURQUE	DERRICK.BOURQUE@sakilacustomer.org
DARRELL	POWER	DARRELL.POWER@sakilacustomer.org
LORETTA	CARPENTER	LORETTA.CARPENTER@sakilacustomer.org
CURTIS	IRBY	CURTIS.IRBY@sakilacustomer.org
TROY	QUIGLEY	TROY.QUIGLEY@sakilacustomer.org

5 rows in set (0.25 sec)

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

```
mysql> SELECT
->   film.title
-> FROM
->   film
-> JOIN
->   film_category ON film.film_id = film_category.film_id
-> JOIN
->   category ON film_category.category_id = category.category_id
-> WHERE
->   category.name = 'Family';
```

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

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

```
mysql>
mysql> DELIMITER ;
mysql> DELIMITER //
mysql> CREATE PROCEDURE GetFilmCountInCategory(
->   IN category_name VARCHAR(255),
->   OUT film_count INT
-> )
-> BEGIN
->   SELECT COUNT(*) INTO film_count
->   FROM film
->   JOIN film_category ON film.film_id = film_category.film_id
->   JOIN category ON film_category.category_id = category.category_id
->   WHERE category.name = category_name;
-> END //
```

ERROR 1304 (42000): PROCEDURE GetFilmCountInCategory already exists

```
mysql> DELIMITER ;
mysql> CALL GetFilmCountInCategory('Family', @film_count);
Query OK, 1 row affected (0.09 sec)
```

```
mysql> SELECT @film_count AS film_count;
```

film_count
69

1 row in set (0.00 sec)

```
mysql>
```

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- Display the most frequently rented movies in descending order.

```
Database changed
mysql> SELECT
->   film.title AS movie_title,
->   COUNT(rental.rental_id) AS rental_count
-> FROM
->   film
-> JOIN
->   inventory ON film.film_id = inventory.film_id
-> JOIN
->   rental ON inventory.inventory_id = rental.inventory_id
-> GROUP BY
->   film.title
-> ORDER BY
->   rental_count DESC;
```

movie_title	rental_count
BUCKET BROTHERHOOD	34
ROCKETEER MOTHER	33
FORWARD TEMPLE	32
GRIT CLOCKWORK	32
JUGGLER HARDLY	32
RIDGEMONT SUBMARINE	32
SCALAWAG DUCK	32
APACHE DIVINE	31
GOODFELLAS SALUTE	31
HOBBIT ALIEN	31
NETWORK PEAK	31
ROBBERS JOON	31
RUSH GOODFELLAS	31
TIMBERLAND SKY	31
WIFE TURN	31
ZORRO ARK	31
BUTTERFLY CHOCOLAT	30
CAT CONEHEADS	30
DOGMA FAMILY	30
ENGLISH BULWORTH	30
FROST HEAD	30
GRAFFITI LOVE	30
HARRY IDAHO	30
IDOLS SNATCHERS	30
MARRIED GO	30
MASSACRE USUAL	30
MUSCLE BRIGHT	30

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

```
mysql>
mysql> SELECT
-> store.store_id,
-> city.city,
-> country.country
-> FROM
-> store
-> JOIN
-> address ON store.address_id = address.address_id
-> JOIN
-> city ON address.city_id = city.city_id
-> JOIN
-> country ON city.country_id = country.country_id;
```

store_id	city	country
1	Lethbridge	Canada
2	Woodridge	Australia

2 rows in set (0.30 sec)

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- List the genres and its gross revenue.

```
mysql> SELECT
-> category.name AS genre,
-> SUM(payment.amount) AS gross_revenue
-> FROM
-> category
-> JOIN
-> film_category ON category.category_id = film_category.category_id
-> JOIN
-> film ON film_category.film_id = film.film_id
-> JOIN
-> inventory ON film.film_id = inventory.film_id
-> JOIN
-> rental ON inventory.inventory_id = rental.inventory_id
-> JOIN
-> payment ON rental.rental_id = payment.rental_id
-> GROUP BY
-> category.name
-> ORDER BY
-> gross_revenue DESC;
```

genre	gross_revenue
Sports	5314.21
Sci-Fi	4756.98
Animation	4656.30
Drama	4587.39
Comedy	4383.58
Action	4375.85
New	4351.62
Games	4281.33
Foreign	4270.67
Family	4226.07
Documentary	4217.52
Horror	3722.54
Children	3655.55
Classics	3639.59
Travel	3549.64
Music	3417.72

16 rows in set (0.23 sec)

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- Create a View for the above query(18)

```
mysql> CREATE VIEW GenreGrossRevenueView AS
-> SELECT
-> category.name AS genre,
-> SUM(payment.amount) AS gross_revenue
-> FROM
-> category
-> JOIN
-> film_category ON category.category_id = film_category.category_id
-> JOIN
-> film ON film_category.film_id = film.film_id
-> JOIN
-> inventory ON film.film_id = inventory.film_id
-> JOIN
-> rental ON inventory.inventory_id = rental.inventory_id
-> JOIN
-> payment ON rental.rental_id = payment.rental_id
-> GROUP BY
-> category.name;
Query OK, 0 rows affected (3.02 sec)

mysql>
mysql> SELECT * FROM GenreGrossRevenueView;
```

genre	gross_revenue
Action	4375.85
Animation	4656.30
Children	3655.55
Classics	3639.59
Comedy	4383.58
Documentary	4217.52
Drama	4587.39
Family	4226.07
Foreign	4270.67
Games	4281.33
Horror	3722.54
Music	3417.72
New	4351.62
Sci-Fi	4756.98
Sports	5314.21
Travel	3549.64

16 rows in set (0.36 sec)

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- Select top 5 genres in gross revenue view.

```
mysql> SELECT *
-> FROM GenreGrossRevenueView
-> ORDER BY gross_revenue DESC
-> LIMIT 5;
```

genre	gross_revenue
Sports	5314.21
Sci-Fi	4756.98
Animation	4656.38
Drama	4587.39
Comedy	4383.58

5 rows in set (0.21 sec)

Activate Windows
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