MI 1.02: Report #8

Due on

Nghiem Thi Phuong 5:30pm

Cao Anh Quan

Problem 1

1. List names of all the languages in the database (sorted alphabetically)?

```
SELECT * FROM language ORDER BY name ASC;
```

	language_id	name	last_update
1	1	English	2006-02-15 05:02:19
2	5	French	2006-02-15 05:02:19
3	6	German	2006-02-15 05:02:19
4	2	Italian	2006-02-15 05:02:19
5	3	Japanese	2006-02-15 05:02:19
6	4	Mandarin	2006-02-15 05:02:19

2. List full names of actors with "GER" in their last name, ordered by their first name

```
SELECT concat(first_name, ' ', last_name) AS full_name
FROM actor
WHERE last_name LIKE '%GER%'
ORDER BY first_name;
```

	full_name
1	CAMERON ZELLWEGER
2	JULIA ZELLWEGER
3	MICHAEL BOLGER
4	MINNIE ZELLWEGER
5	VAL BOLGER
6	VIVIEN BASINGER

3. Find all the addresses where postal code starts with "57", and return addresses sorted.

```
SELECT *
FROM address
WHERE postal_code LIKE "57%"
ORDER BY address;
```

---

	address_id	address	address2	district	city_id	postal_code	phone	location
1	143	1029 Dzerzinsk Manor		Ynlin	542	57519	33173584456	25B◊0000000
2	376	1061 Ede Avenue		Southern Tagalog	98	57810	333390595558	25B◊0000000
3	167	1287 Xiangfan Boulevard		Gifu	253	57844	819416131190	25B◊0000000
4	252	1309 Weifang Street		Florida	520	57338	435785045362	25B◊0000000
5	502	1515 Korla Way		England	589	57197	959467760895	25B◊0000000
6	59	1697 Kowloon and New Kowloon Loop		Moskova	49	57807	4993520171 90	25B◊0000000
7	444	231 Kaliningrad Place		Lombardia	70	57833	575081026569	25B◊0000000
8	552	390 Wroclaw Way		Hainan	462	5753	357593328658	25B◊0000000
9	338	431 Szkesfehrvr Avenue		Baki	48	57828	119501405123	25B◊0000000

4. How many films involve a "DWARF" in their titles?

```sql
SELECT COUNT(*) FROM film WHERE title LIKE "%DWARF%";
```

`COUNT(*)`
1 2

5. Find full names of actors who played in a film involving WAR in title and longer than 2.5 hours, along with the title, run length and release year of the movie, sorted by the actors last names.

```sql
SELECT
    concat(first_name, " ", last_name) AS full_name,
    title,
    release_year
FROM film_actor
    JOIN actor
        ON film_actor.actor_id = actor.actor_id
    JOIN
    (SELECT
        film_id,
        title,
        release_year
    FROM film
    WHERE title LIKE "%WAR%" AND length > 150) AS t1
        ON t1.film_id = film_actor.film_id
ORDER BY actor.last_name;
```

	full_name	title	release_year
1	ANGELINA ASTAIRE	WARDROBE PHANTOM	2006
2	KARL BERRY	LEATHERNECKS DWARFS	2006
3	SUSAN DAVIS	LEATHERNECKS DWARFS	2006
4	RIVER DEAN	WARDROBE PHANTOM	2006
5	SPENCER DEPP	LEATHERNECKS DWARFS	2006
6	BOB FAWCETT	LEATHERNECKS DWARFS	2006
7	GREGORY GOODING	WARDROBE PHANTOM	2006
8	ADAM GRANT	GLADIATOR WESTWARD	2006
9	KIRK JOVOVICH	WARDROBE PHANTOM	2006
10	KIRK JOVOVICH	GLADIATOR WESTWARD	2006

6. Find all the film categories in which there are between 55 and 65 films. Return the names of these categories and the number of films per category, sorted by the number of films descending.

```sql
SELECT
    tmp.name,
    tmp.count
FROM
    (SELECT
        category.name AS name,
        category.category_id,
        count(*)        AS count
    FROM film_category
        JOIN category ON film_category.category_id = category.category_id
    GROUP BY category_id) AS tmp
WHERE count > 55 AND count < 65
ORDER BY count DESC;
```

	name	count
1	Action	64
2	New	63
3	Drama	62
4	Games	61
5	Sci-Fi	61
6	Children	60
7	Comedy	58
8	Classics	57
9	Travel	57
10	Horror	56

7. In how many film categories is the average difference between the film replacement cost and the rental
   rate larger than 17?

```
SELECT count(*)
FROM
    (SELECT 1
     FROM film
        JOIN film_category
          ON film_category.film_id = film.film_id
     GROUP BY film_category.category_id
     HAVING abs(avg(replacement_cost) - avg(rental_rate)) > 17)
      AS t;
```

	`count(*)`
1	8

8. Find the address district(s) name(s) such that the minimal postal code in the district(s) is maximal
   over all the districts. Make sure your query ignores empty postal codes and district names.

```
SELECT
    district,
    min(postal_code) AS min_postal_code
FROM address
WHERE postal_code IS NOT NULL
GROUP BY district
ORDER BY min_postal_code DESC
LIMIT 1;
```

	district	min_postal_code
1	Crdoba	99865

9. Find the names (first and last) of all the actors and customers whose first name is the same as the first
   name of the actor with ID 101 (exclude the actor with ID 101).

```
CREATE VIEW tmp AS
    SELECT first_name
    FROM actor
    WHERE actor_id = 101;

SELECT
```

```
        first_name,
        last_name
    FROM customer
10  WHERE first_name = (SELECT first_name
                          FROM tmp)
    UNION
    SELECT
        first_name,
15      last_name
    FROM actor
    WHERE first_name = (SELECT first_name
                          FROM tmp)
          AND actor_id <> 101;
```

	first_name		last_name	
1	SUSAN		WILSON	
2	SUSAN		DAVIS	