Two MySQL Challenges

1. TV Show Reviews database challenge
2. Instagram Clone database challenge

TV Show Reviews Database.

Create a database called **tv_reviews**
Make sure you are using that database.
Create the following tables:

- CREATING THE REVIEWERS TABLE

```
CREATE TABLE reviewers (
    id INT AUTO_INCREMENT PRIMARY KEY,
    first_name VARCHAR(100),
    last_name VARCHAR(100)
);
```

-- CREATING THE SERIES TABLE

```
CREATE TABLE series(
    id INT AUTO_INCREMENT PRIMARY KEY,
    title VARCHAR(100),
    released_year YEAR(4),
    genre VARCHAR(100)
);
```

-- CREATING THE REVIEWS TABLE

```
CREATE TABLE reviews (
    id INT AUTO_INCREMENT PRIMARY KEY,
    rating DECIMAL(2,1),
    series_id INT,
    reviewer_id INT,
    FOREIGN KEY(series_id) REFERENCES series(id),
    FOREIGN KEY(reviewer_id) REFERENCES reviewers(id)
);
```

```
Insert the the data from the tvreviews.sql file and solve the
    following problems:
```

Problems:

1. Write a query that returns all the ratings, along with the series titles for each review.
2. Write a query that returns the average rating for each title.
3. Write a query that returns the first name and last name for every reviewer, with all the ratings they have ever given.
4. Which series have no reviews?

If you are looking for data which is NULL, you cannot use
...WHERE column = NULL
You must instead use
...WHERE column IS NULL

5. What is the average rating for each genre?
6. Write a query that returns the first and last name of each reviewer, the number of reviews they have written, and a column called ‘status’. If they have written at least one review show ‘active’ in the status column, if they have not written a review yet show ‘inactive’ in the status column.

7. Write a query that returns all the titles in the series table, the rating given for each one, and the full name of the reviewer that gave it. (so you should have 3 columns in total). Organise the returned table by title in alphabetical order.

NOTE: This question involves chained JOINS (one JOIN after another), as we will need to combine all three tables. Give it a go, research if you get stuck, and if you really can’t solve this problem ask an instructor.

Instagram Clone Database.

Create a database called **igclone**
Make sure you are using that database.
Create the following tables:

- CREATING THE USERS TABLE

```
CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(255) UNIQUE NOT NULL,
    created_at TIMESTAMP DEFAULT NOW()
);
```

- CREATING THE PHOTOS TABLE

```
CREATE TABLE photos (
    id INT AUTO_INCREMENT PRIMARY KEY,
    image_url VARCHAR(255) NOT NULL,
    user_id INT NOT NULL,
    created_at TIMESTAMP DEFAULT NOW(),
    FOREIGN KEY(user_id) REFERENCES users(id)
);
```

- CREATING THE COMMENTS TABLE

```
CREATE TABLE comments (
    id INT AUTO_INCREMENT PRIMARY KEY,
    comment_text VARCHAR(255) NOT NULL,
    photo_id INT NOT NULL,
    user_id INT NOT NULL,
    created_at TIMESTAMP DEFAULT NOW(),
    FOREIGN KEY(photo_id) REFERENCES photos(id),
    FOREIGN KEY(user_id) REFERENCES users(id)
);
```

- CREATING THE LIKES TABLE

```
CREATE TABLE likes (
    user_id INT NOT NULL,
    photo_id INT NOT NULL,
    created_at TIMESTAMP DEFAULT NOW(),
    FOREIGN KEY(user_id) REFERENCES users(id),
    FOREIGN KEY(photo_id) REFERENCES photos(id),
    PRIMARY KEY(user_id, photo_id)
);
```

In MySQL workbench, you will need to ensure that the ‘number of rows limit’ is set to “Don’t Limit” - ask if you are unsure.

Load the data set and solve the following problems:

Problems:

1. Find the 5 users who were first to sign up (the 5 oldest users).

2. Find the users who have never posted a photo.

If you are looking for data which is NULL, you cannot use
...WHERE column = NULL
You must instead use
...WHERE column IS NULL

3. Which user posted the most liked photo?

4. What day of the week do most users register on?

You can use the DAYNAME( ) function to pull out the name of the day from a date. For example DAYNAME('2019-09-24') would return 'Tuesday'.

Try running the command SELECT DAYNAME(NOW());

If you used DAYNAME(created_at) it would return the day of the week.

Extension (requires research as it uses a keyword you haven't directly been taught)

5. We are having a problem with bots on our site. Find the users who have liked ALL the photos.