

- 1) Assume that there was a problem in the email system with names where either the first name or the last name is *more than 10 characters long*.

Now, the management would like you to find these customers and output the list of these first, last names, and email in all lower case? (dvdrental database, customer table)

```
SELECT LOWER(first_name) AS first_name, LOWER(last_name) AS last_name,  
LOWER(email) AS email  
FROM customer  
WHERE LENGTH(first_name) > 10 OR LENGTH(last_name) > 10;
```

- 2) Create an anonymized version of the email addresses, such as instead of

‘MARY.SMITH@sakilacustomer.org’, it should look like ‘M***@ sakilacustomer.org’.

So, it should be the first character followed by three asterisks ‘***’ and then the last part starting with ‘@’.

Please note that the email address always ends with ‘@sakilacustomer.org’. (dvdrental database, customer table)

```
SELECT CONCAT(UPPER(SUBSTRING(email, 1, 1)), '***', '@sakilacustomer.org')  
FROM customer;
```

- 3) Assume that you have only the ‘email’ and ‘last_name’ of the customers. So, you are allowed to use only these two columns from the table. Now, extract the first name from the email address and concatenate it with the last name. And it should be in the form: “Last name, First name” with the first letters are capitalized. For example, given the columns email (e.g.,

"jared.ely@sakilacustomer.org") and last_name (e.g., "Ely"), write a query to extract the first name from the email address and format the output as "Ely, Jared". (*dvdrental database, customer table*).

```
SELECT CONCAT_WS( ',', last_name, INITCAP(SPLIT_PART(SPLIT_PART(email, '@', 1), '.', 1))) AS name

FROM CUSTOMER;
```

- 4) Create an anonymized form of the email addresses in the following way,

'M***.S***@sakilacustomer.org'. (instead of [MARY.SMITH@sakilacustomer.org](#)). (*dvdrental database, customer table*)

```
SELECT CONCAT(CONCAT_WS(' ', CONCAT(UPPER(SUBSTRING(first_name, 1, 1)),
'***'), CONCAT(UPPER(SUBSTRING(last_name, 1, 1)), '***')) , '@sakilacustomer.org') AS email

FROM customer;
```

- 5) Write a query to return the initials of each customer's name from the first_name and last_name columns of the customer table. For example, "John Smith" should return "J.S." (*dvdrental database, customer table*)

```
SELECT CONCAT_WS(' ', UPPER(SUBSTRING(first_name, 1, 1)),
UPPER(SUBSTRING(last_name, 1, 1)), '') AS initial

FROM customer;
```

- 6) In the northwind database, from the customers table, retrieve the customer_id and area code (first three characters) from the phone column for each customer. (northwind database, customers table)

```
SELECT customer_id, LEFT(phone, 3) AS area_code  
FROM customers;
```

- 7) Using the dvdrental database, assume customer emails follow the format first_name_last_name@dvdrental.com. Write a query to retrieve the following output: (dvdrental database, customer table)

1	Jared_Ely@dvdrental.com
2	Mary_Smith@dvdrental.com
3	Patricia_Johnson@dvdrental.com
4	Linda_Williams@dvdrental.com
5	Barbara_Jones@dvdrental.com
6	Elizabeth_Brown@dvdrental.com

```
SELECT CONCAT(CONCAT_WS(' ', first_name, last_name), '@dvdrental.com') AS  
email  
FROM customer;
```

- 8) Retrieve the first three characters of both the product_name and category_name, aliasing them as product_prefix and category_prefix. (northwind database, products & categories table)

```
SELECT SUBSTRING(product_name, 1, 3) AS product_prefix, SUBSTRING(category_name,  
1, 3) AS category_prefix
```

FROM products

INNER JOIN categories

USING (category_id);