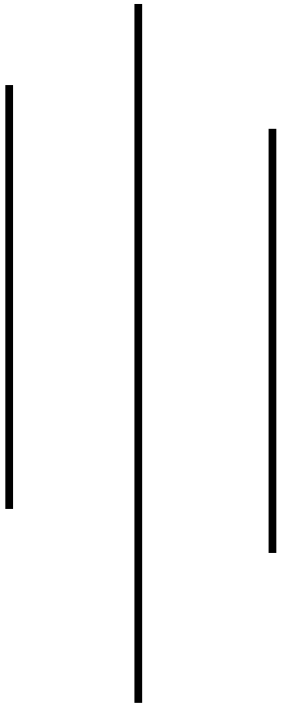
Deerwalk Institute Of Technology
Advance Database Management System



Lab: 1

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Date: 2015-4-5

Creating stored procedure to find the maximum length of each column in a schema:

First we have a schema defined as follows:

```
mysql> desc PERIOD;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| id         | int(11)     | YES  |     | NULL    |       |
| first_name | varchar(20) | YES  |     | NULL    |       |
| last_name  | varchar(20) | YES  |     | NULL    |       |
| email      | varchar(40) | YES  |     | NULL    |       |
| gender     | varchar(10) | YES  |     | NULL    |       |
| ip_address | varchar(12) | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
6 rows in set (0.04 sec)
```

The sample data in the table is:

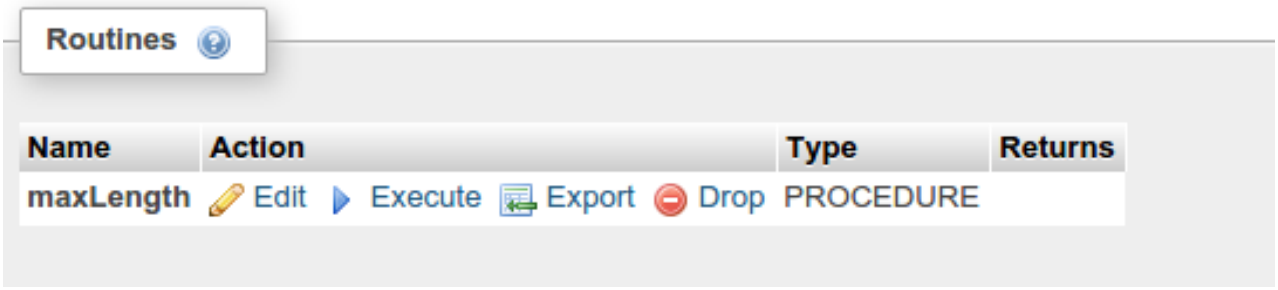
```
mysql> select * from PERIOD;
+------+------------+------------+-----------------------------------+--------+--------------+
| id   | first_name | last_name  | email                             | gender | ip_address   |
+------+------------+------------+-----------------------------------+--------+--------------+
|    0 | first_name | last_name  | email                             | gender | ip_address   |
|    1 | Bonnie     | Washington | bwashington0@eepurl.com           | Female | 162.115.178. |
|    2 | Dorothy    | Stewart    | dstewart1@nyu.edu                 | Female | 187.64.77.12 |
|    3 | Victor     | Rose       | vrose2@google.es                  | Male   | 161.119.139. |
|    4 | Mildred    | Meyer      | mmeyer3@meetup.com                | Female | 68.242.162.7 |
|    5 | Patricia   | Powell     | ppowell4@spotify.com              | Female | 131.231.163. |
|    6 | Jonathan   | Allen      | jallen5@google.com                | Male   | 49.139.139.1 |
|    7 | Linda      | Johnston   | ljohnston6@cyberchimps.com        | Female | 107.145.234. |
|    8 | Rebecca    | Diaz       | rdiaz7@pbs.org                    | Female | 249.46.2.50  |
|    9 | Joan       | Gilbert    | jgilbert8@dyndns.org              | Female | 34.130.35.24 |
|   10 | Andrea     | Alexander  | aalexander9@yellowbook.com        | Female | 245.120.103. |
|   11 | Joyce      | Ray        | jraya@cafepress.com               | Female | 245.253.78.1 |
|   12 | Richard    | Walker     | rwalkerb@woothemes.com            | Male   | 218.200.38.8 |
|   13 | Norma      | Gilbert    | ngilbertc@baidu.com               | Female | 138.185.81.1 |
```

Now we create stored procedure or routine to find the max length for each column:

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `maxLength`()
    NO SQL
BEGIN
     DECLARE complete INT DEFAULT FALSE;
     DECLARE columnName VARCHAR(50);
     DECLARE tableName VARCHAR(50);
     DECLARE query1 VARCHAR(1000) DEFAULT ' ';
     DECLARE query2 VARCHAR(1000) DEFAULT 'select ';
DECLARE cursor1 CURSOR FOR
SELECT column_name,table_name FROM information_schema.`COLUMNS` WHERE
table_schema='adbms' AND table_name='PERIOD';

DECLARE CONTINUE HANDLER FOR NOT FOUND SET complete=TRUE;
```

```
OPEN cursor1;

read_loop: LOOP
FETCH NEXT FROM cursor1 INTO columnName,tableName;


IF complete THEN
     LEAVE read_loop;
-- ------------------------------------------------------
ELSE
SET query1=CONCAT('max(length(',columnName,')),');
SET query2=CONCAT(query2,query1);
-- ------------------------------------------------------
ITERATE read_loop;

END IF;

END LOOP;
SET @query3=CONCAT(LEFT(query2,(LENGTH(query2)-1)),' from ', tableName);
SELECT (@query3);
PREPARE stmt FROM @query3;
EXECUTE stmt;
DEALLOCATE PREPARE stmt;

CLOSE cursor1;
END
```

Now, in phpmyadmin in browser, we see following output:



When, we click on **execute,** or call the procedure with statement `CALL `maxLength` ();` in the console, we obtain following output:

The output gives the max length of entry in the column.