



Lab – 7

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Question - 1

```
mysql> create procedure insertCustomer(in cname varchar(30), in cstreet varchar(30), in ccity varchar(30))
-> begin
-> insert into customer values (cname, cstreet, ccity);
-> end $
Query OK, 0 rows affected (0.16 sec)

mysql> delimiter ;
mysql> call insertCustomer("Peter","new St.,"Queens");
Query OK, 1 row affected (0.02 sec)

mysql> select * from customer;
+-----+-----+-----+
| customer_name | customer_street | customer_city |
+-----+-----+-----+
| Adams         | Spring          | Pittsfield    |
| Brooks        | Senator         | Brooklyn      |
| Curry         | North           | Rye            |
| Glenn         | Sand Hill       | Woodside       |
| Green         | Walnut          | Stamford       |
| Hayes         | Main            | Harrison       |
| Johnson       | Alma           | Palo Alto     |
| Jones         | Main            | Harrison       |
| Lindsay       | Park            | Pittsfield     |
| Peter         | new St.         | Queens         |
| Smith         | North           | Rye            |
| Turner        | Putnam          | Stamford       |
| Williams      | Nassau          | Princeton     |
+-----+-----+-----+
13 rows in set (0.00 sec)
```

Question - 2

```
mysql> drop procedure insertCustomer ;
Query OK, 0 rows affected (0.04 sec)
```

Question - 3

```
mysql> delimiter $
mysql> create procedure addition(in a int, in b int, out c int)
-> begin
-> select a+b into c
-> ;
-> end $
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> call addition(2,3,@product);
Query OK, 1 row affected (0.03 sec)

mysql> select @product;
+-----+
| @product |
+-----+
|         5 |
+-----+
1 row in set (0.01 sec)

mysql> delimiter $
mysql> create procedure multiplication(in a int, in b int, out c int)
-> begin
-> select a*b into c
-> ;
-> end $
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> call multiplication(5,4,@product);
Query OK, 1 row affected (0.00 sec)

mysql> select @product;
+-----+
| @product |
+-----+
|        20 |
+-----+
1 row in set (0.01 sec)
```

Question - 4

```
mysql> delimiter !
mysql> create procedure SquareRoot (in a double, out c double)
  -> begin
  -> select SQRT(a) into c;
  -> end !
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> call SquareRoot(2,@root);
Query OK, 1 row affected (0.01 sec)

mysql> select @root;
+-----+
| @root |
+-----+
| 1.4142135623730951 |
+-----+
1 row in set (0.01 sec)
```

Question - 5

```
mysql> delimiter $
mysql> create procedure StringLength(in str varchar(250), out c int)
  -> begin
  -> select LENGTH(str) into c;
  -> end $
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> call StringLength("Sai kiran", @length);
Query OK, 1 row affected (0.00 sec)

mysql> select @length;
+-----+
| @length |
+-----+
|      9 |
+-----+
1 row in set (0.00 sec)
```

Question - 6

```
mysql> delimiter $
mysql> create procedure Factorial(in a int)
-> begin
-> declare c int;
-> set c = a;
-> if a=0 or a=1 then
-> set c=1;
-> select c;
-> else
-> while a>1 do
-> set c = c*(a-1);
-> set a = a-1;
-> end while;
-> select c;
-> end if;
-> end $
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> delimiter ;
mysql> call Factorial(4);
```

```
+-----+
| c      |
+-----+
| 24     |
+-----+
```

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)

Question - 7

```
mysql> delimiter $
mysql> create Procedure UpdateName(in oldName varchar(30), in newName varchar (30))
-> begin
-> update customer set customer_name=newName where customer_name=oldname;
-> end $
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> select customer_name from customer;
+-----+
| customer_name |
+-----+
| Adams         |
| Brooks        |
| Curry         |
| Glenn         |
| Green         |
| Hayes         |
| Johnson       |
| Jones         |
| Lindsay       |
| Peter         |
| Smith         |
| Turner        |
| Williams      |
+-----+
13 rows in set (0.02 sec)
```

```
mysql> call UpdateName('Peter','Sai');
Query OK, 1 row affected (0.01 sec)

mysql> select customer_name from customer;
+-----+
| customer_name |
+-----+
| Adams         |
| Brooks        |
| Curry         |
| Glenn         |
| Green         |
| Hayes         |
| Johnson       |
| Jones         |
| Lindsay       |
| Sai           |
| Smith         |
| Turner        |
| Williams      |
+-----+
13 rows in set (0.00 sec)

mysql>
```

Question - 8

```
mysql> delimiter $
mysql> create procedure hasLoan(in cname varchar(30))
-> begin
-> declare yes varchar(100) default "Yes, This customer has a loan";
-> declare no varchar(100) default "NO, This customer does not have a loan";
-> declare cnt int;
-> select count(*) into cnt from borrower where borrower.customer_name=cname;
-> if cnt=0 then
-> select no;
-> else
-> select yes;
-> end if;
-> end $
Query OK, 0 rows affected (0.01 sec)

mysql> select * from borrower;
-> end $
+-----+-----+
| customer_name | loan_number |
+-----+-----+
| Smith        | L-11       |
| Hayes        | L-15       |
| Adams        | L-16       |
| Jones        | L-17       |
| Williams     | L-17       |
| Smith        | L-23       |
| Curry        | L-93       |
+-----+-----+
7 rows in set (0.00 sec)
```

```
mysql> delimiter ;
mysql> call hasLoan("Curry");
+-----+
| yes |
+-----+
| Yes, This customer has a loan |
+-----+
1 row in set (0.01 sec)

Query OK, 0 rows affected (0.02 sec)
```

```
mysql> call hasLoan("Brooks");
+-----+
| no |
+-----+
| NO, This customer does not have a loan |
+-----+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)
```

```
mysql> call hasLoan("Adams");
+-----+
| yes |
+-----+
| Yes, This customer has a loan |
+-----+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.10 sec)

mysql>
```


Question - 9

```
mysql> delimiter $
mysql> create procedure city(in cname varchar(30))
  -> begin
  -> declare cnt int;
  -> select count(*) into cnt from customer where customer.customer_name=cname;
  -> if cnt>0 then
  -> select customer_city from customer where customer.customer_name=cname;
  -> else
  -> insert into customer(customer_name) values (cname);
  -> end if;
  -> end $
Query OK, 0 rows affected (0.03 sec)

mysql> delimiter ;
mysql> select customer_name,customer_city from customer;
+-----+-----+
| customer_name | customer_city |
+-----+-----+
| Adams        | Pittsfield    |
| Brooks       | Brooklyn     |
| Curry        | Rye           |
| Glenn        | Woodside      |
| Green        | Stamford      |
| Hayes        | Harrison      |
| Johnson      | Palo Alto     |
| Jones        | Harrison      |
| Lindsay      | Pittsfield    |
| Sai          | Queens        |
| Smith        | Rye           |
| Turner       | Stamford      |
| Williams     | Princeton    |
+-----+-----+
13 rows in set (0.00 sec)
```

```
mysql> call city("Sai");
+-----+
| customer_city |
+-----+
| Queens       |
+-----+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)

mysql> call city("Turner");
+-----+
| customer_city |
+-----+
| Stamford      |
+-----+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.11 sec)

mysql>
```

Question - 10

```
mysql> delimiter $
mysql> create procedure DisplayAccNO(in bal double)
-> begin
-> select account_number from account where balance > bal;
-> end $
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql> select account_name, balance from account;
ERROR 1054 (42S22): Unknown column 'account_name' in 'field list'
mysql> delimiter ;
mysql> select account_number, balance from account;
+-----+-----+
| account_number | balance |
+-----+-----+
| A-101          | 500.00  |
| A-102          | 400.00  |
| A-201          | 900.00  |
| A-215          | 700.00  |
| A-217          | 750.00  |
| A-222          | 700.00  |
| A-305          | 350.00  |
+-----+-----+
7 rows in set (0.00 sec)

mysql> call DisplayAccNo(500);
+-----+
| account_number |
+-----+
| A-201          |
| A-215          |
| A-217          |
| A-222          |
+-----+
4 rows in set (0.03 sec)

Query OK, 0 rows affected (0.11 sec)
```