

# LAB EXAM-2021

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## SECTION-1

**Q1.**

1. The retirement age is 60 years. Display the retirement day of all the Customers. [1 Mark]

```
mysql> select c.customer_name, DATE_ADD(dob, interval 60 year) as retirement_day from (select * from customer) as c;
```

customer_name	retirement_day
Smith	2070-02-20
Turner	2030-09-06
Johnson	2068-08-08
Jones	2050-11-12
Lindsay	2049-10-10
Hayes	2069-10-25

```
6 rows in set (0.00 sec)
```

**Q2.**

2. List the number of customers in each place. [2 Mark]

```
mysql> select customer_city, count(customer_name) from customer group by customer_city having customer_city in (select customer_city from customer);
```

customer_city	count(customer_name)
Rye	1
Stamford	1
Palo Alto	1
Harrison	2
Pittsfield	1

```
5 rows in set (0.01 sec)
```

### Q3.

3. List Customer details who are minor. [1 Mark]

```
mysql> create function isMinor(dob date)
-> returns int
-> deterministic
-> begin
-> declare hey int;
-> if((select TIMESTAMPDIFF(year, dob, CURDATE())) > 18) then
-> set hey = 1;
-> else
-> set hey = 0;
-> end if;
-> return (hey);
-> end //
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> delimiter ;
```

```
mysql> select * from customer c where isMinor(c.dob) = 0;
```

customer_id	customer_name	customer_street	customer_city	account_number	dob
019-28-3746	Smith	72 North St.	Rye	A-201	2010-02-20
192-83-7465	Johnson	12 Alma St.	Palo Alto	A-101	2008-08-08
677-89-9011	Hayes	3 Main St.	Harrison	A-102	2009-10-25

3 rows in set (0.00 sec)

### Q4.

4. Find all the customers who have loan at the bank, but do not have an account at the bank [1 Mark]

```
mysql> SELECT CUSTOMER_ID FROM LOAN NATURAL JOIN BORROWER
-> WHERE CUSTOMER_ID NOT IN
-> (SELECT CUSTOMER_ID FROM ACCOUNT NATURAL JOIN DEPOSITOR);
Empty set (0.00 sec)
```

## SECTION -2

### Q1.

1. Write a stored function to replace the customer name “Smith” to “your roll number”. [5 Marks]

```
mysql> Create Function update_name()  
-> RETURNS INT  
-> DETERMINISTIC  
-> BEGIN  
-> update customer set customer_name ="S20200010234" where customer_id="019-28-3746";  
-> update depositor set customer_name ="S20200010234" where customer_id="019-28-3746";  
-> update borrower set customer_name ="S20200010234" where customer_id="019-28-3746";  
-> return 1;  
-> END//  
Query OK, 0 rows affected (0.02 sec)
```

```
ERROR 1305 (42000): PROCEDURE endlat  
mysql> select update_name();  
+-----+  
| update_name() |  
+-----+  
|              1 |  
+-----+
```

## Q2.

Create a Stored procedure to display Net balance of all the customers. [5 Marks]  
(Hint: Net Balance= Balance-Loan Amount)

```
mysql> CREATE PROCEDURE get_balance()
-> BEGIN
->     SELECT account.balance-loan.amount as balance
->     FROM customer
->     INNER JOIN
->     account ON (customer.account_number=account.account_number or customer.account_number is NULL or account.account_number is NULL)
->     INNER JOIN
->     borrower ON (borrower.customer_id =customer.customer_id or borrower.customer_id is NULL or customer.customer_id is NULL)
->     INNER JOIN
->     loan ON (loan.loan_number=borrower.loan_number or loan.loan_number is NULL or borrower.loan_number);
-> END &&
Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;
mysql> call get_balance();
+-----+
| balance |
+-----+
|      0.00 |
| -1000.00 |
| -1100.00 |
|  -250.00 |
| -1100.00 |
+-----+
5 rows in set (0.01 sec)
```

## Q3.

PL SQL Program For function to return the grade of the student using cursor (use student table) [5 Marks]