

Indian Institute of Information Technology Chittoor, Sri City**Course: Database Management System****Duration: 2 hours****Max. Marks: 20**Roll No.: S20200010212Name: RAHUL VARMA

INSTRUCTIONS:

1. Answer all the questions and paste the screenshot in the same sequence in the word file (question paper). Then convert it into the single pdf.
 2. The name of the pdf must be your Roll no followed by your name. (Example: S20190990001_XXXXX) Upload single pdf file.
 3. Crop only required part in the screenshot. Don't paste entire screenshot unnecessarily.
 4. Consider the Bank database for all the questions.
 5. Table data will be shared in the classroom.
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Section -1 (Queries)-5M

1. The retirement age is 60 years. Display the retirement day of all the Customers. [1 Mark]
2. List the number of customers in each place. [2 Mark]
3. List Customer details who are minor. [1 Mark]
4. Find all the customers who have loan at the bank, but do not have an account at the bank [1 Mark]

Section-2 (Programs)-15M

1. Write a stored function to replace the customer name "Smith" to "your roll number". [5 Marks]
2. Create a Stored procedure to display Net balance of all the customers. [5 Marks]
(Hint: Net Balance= Balance-Loan Amount)
3. PL SQL Program For function to return the grade of the student using cursor (use student table) [5 Marks]

TABLES:

```
mysql> show tables;
+-----+
| Tables_in_endsem |
+-----+
| account           |
| borrower          |
| branch            |
| customer          |
| depositor         |
| loan              |
| student_s20200010212 |
+-----+
7 rows in set (0.00 sec)

mysql> select * from account;
+-----+-----+-----+
| accountnumber | branch_name | balance |
+-----+-----+-----+
| A-101         | Downtown    | 500     |
| A-102         | Perryridge  | 400     |
| A-201         | Brighton    | 900     |
| A-215         | Mianus      | 700     |
| A-217         | Brighton    | 750     |
| A-222         | Redwood     | 700     |
| A-305         | Round Hill  | 350     |
+-----+-----+-----+
7 rows in set (0.01 sec)
```

```
mysql> select * from borrower;
```

customer-name	loan-number
Adams	L-16
Curry	L-93
Hayes	L-15
Jackson	L-14
Jones	L-17
Smith	L-11
Smith	L-23
Williams	L-17

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

```
mysql> select * from branch;
```

branchname	branch_city	assets
Brighton	Brooklyn	7100000
Downtown	Brooklyn	9000000
Mianus	Horseneck	400000
North Town	Rye	3700000
Perryridge	Horseneck	1700000
Pownal	Bennington	300000
Redwood	Palo Alto	2100000
Round Hill	Horseneck	8000000

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

```
mysql> select * from customer;
```

customerid	customername	customerstreet	customer-city	accountnumber	dob
192-83-7465	Johnson	12 Alma St.	Palo Alto	A-101	08/08/2008
192-83-7465	Johnson	12 Alma St.	Palo Alto	A-201	01/01/2000
677-89-9011	Hayes	3 Main St.	Harrison	A-102	10/25/2009
182-73-6091	Turner	123 Putnam St.	Stamford	A-305	06/09/1970
321-12-3123	Jones	100 Main St.	Harrison	A-217	12/11/1990
336-66-9999	Lindsay	175 Park Ave	Pittsfield	A-222	10/10/1989
019-28-3746	Smith	72 North St.	Rye	A-201	20/02/2010

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

```
mysql> select * from depositor;
```

customer-name	account_number
Hayes	A-102
Johnson	A-101
Johnson	A-201
Jones	A-217
Lindsay	A-222
Smith	A-215
Turner	A-305

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

```
mysql> select * from loan;
```

loan_number	branch_name	amount
L-11	Round Hill	900
L-14	Downtown	1500
L-15	Perryridge	1500
L-16	Perryridge	1300
L-17	Downtown	1000
L-23	Redwood	2000
L-93	Mianus	500

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



```
mysql> select * from student_s20200010212;
```

stu_id	stu_name	stu_dept	dob	Course1	Course2	Course3	Course4
2505	peter	Finance	08/25/2002	80	34	45	89
2506	Mark	HR	03/25/1980	35	45	78	90
2507	Donald	Finance	12/26/1995	45	12	98	34
2508	Obama	Management	10/30/1990	84	56	98	45
2509	Linklon	HR	08/08/2008	21	77	78	56
2510	Kane	Sales	01/01/2000	13	88	67	67
2511	Adam	Management	10/25/2009	56	99	45	99
2512	Mac	Finance	06/09/1970	76	0	55	99
2513	Manas	Accounts	12/11/1990	24	43	55	100
2514	Vasin	Accounts	10/10/1989	87	55	66	10
2515	Ram	CSE	10/10/1989	99	98	89	90

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

SECTION 1:

Q1)

```
mysql> select DATE_ADD(dob, INTERVAL 60 YEAR) AS date_of_retirement from customer;
```

date_of_retirement
2070-02-20
2030-09-06
2068-08-08
2050-11-12
2049-10-10
2069-10-25

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

Q2)

```
mysql> select branch_city, count(branch_city) as number_of_cust_in_this_place from branch group by branch_city;
+-----+-----+
| branch_city | number_of_cust_in_this_place |
+-----+-----+
| Brooklyn   | 2 |
| Horseneck  | 3 |
| Rye        | 1 |
| Bennington | 1 |
| Palo Alto  | 1 |
+-----+-----+
5 rows in set (0.01 sec)

mysql> _
```

Q3)

```
mysql> select * from customer where DATEDIFF(now(),dob) < 18;
Empty set (0.00 sec)

mysql> █
```

Q4)

```
mysql> select customer_name from borrower
      -> where customer_name not in (select customer_name from depositor);
Empty set (0.00 sec)

mysql>
```

SECTION 2:

Q1)

SMITH IS CHANGED TO MY ROLL NUMBER:

```
mysql> create function rename_q1(name varchar(30))
      -> returns varchar(30)
      -> deterministic
      -> begin
      -> declare x varchar(30);
      -> set x = "renamed smith with roll";
      -> update borrower set customer_name = "S20200010212" where customer_name = "smith";
      -> update customer set customername = "S20200010212" where customername = "smith";
      -> update depositor set customer_name = "S20200010212" where customer_name = "smith";
      -> return(x);
      -> end /
Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;
```

```
mysql> select * from borrower;
```

customer_name	loan_number
Adams	L-16
Curry	L-93
Hayes	L-15
Jackson	L-14
Jones	L-17
S20200010212	L-11
S20200010212	L-23
Williams	L-17

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

```
mysql> select * from customer;
```

customerid	customername	customerstreet	customer-city	accountnumber	dob
192-83-7465	Johnson	12 Alma St.	Palo Alto	A-101	08/08/2008
192-83-7465	Johnson	12 Alma St.	Palo Alto	A-201	01/01/2000
677-89-9011	Hayes	3 Main St.	Harrison	A-102	10/25/2009
182-73-6091	Turner	123 Putnam St.	Stamford	A-305	06/09/1970
321-12-3123	Jones	100 Main St.	Harrison	A-217	12/11/1990
336-66-9999	Lindsay	175 Park Ave	Pittsfield	A-222	10/10/1989
019-28-3746	S20200010212	72 North St.	Rye	A-201	20/02/2010

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

```
mysql> select * from depositor;
```

customer_name	loan_number
Adams	L-16
Curry	L-93
Hayes	L-15
Jackson	L-14
Jones	L-17
S20200010212	L-11
S20200010212	L-23
Williams	L-17

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

```
mysql>
```

Q2)

```
mysql> delimiter /
mysql> create procedure q2(in accnum varchar(30), in lnum varchar(30), out ans int)
  -> begin
  -> declare i int;
  -> declare j int;
  -> select balance as i from account where accountnumber = accnum;
  -> select amount as j from loan where loan_number = lnum;
  -> set ans = i-j;
  -> end/
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> call q2("A-101","L-11",@final);
  -> /
+-----+
| i      |
+-----+
| 500    |
+-----+
1 row in set (0.00 sec)

+-----+
| j      |
+-----+
| 900    |
+-----+
1 row in set (0.00 sec)
```

FINAL ANSWER WILL BE -400

SO WE CAN FIND ALL BY PASSING IN FUNCTION

Q3)

```
mysql> select * from student_s20200010212;
```

stu_id	stu_name	stu_dept	dob	Course1	Course2	Course3	Course4
2505	peter	Finance	08/25/2002	80	34	45	89
2506	Mark	HR	03/25/1980	35	45	78	90
2507	Donald	Finance	12/26/1995	45	12	98	34
2508	Obama	Management	10/30/1990	84	56	98	45
2509	Linklon	HR	08/08/2008	21	77	78	56
2510	Kane	Sales	01/01/2000	13	88	67	67
2511	Adam	Management	10/25/2009	56	99	45	99
2512	Mac	Finance	06/09/1970	76	0	55	99
2513	Manas	Accounts	12/11/1990	24	43	55	100
2514	Vasin	Accounts	10/10/1989	87	55	66	10
2515	Ram	CSE	10/10/1989	99	98	89	90

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



```
mysql> create function Q_3(stuid int)
-> returns varchar(30)
-> deterministic
-> begin
-> declare a int;
-> declare b int;
-> declare c int;
-> declare d int;
-> select course1 as a where stu_id = stuid;
-> select course2 as a where stu_id = stuid;
-> select course3 as a where stu_id = stuid;
-> select course4 as a where stu_id = stuid;
-> declare final int;
-> set final = a+b+c+d;
-> declare result varchar(30);
->
-> if final>=360 then
-> set result = "grade A";
-> elseif (final<=360 and final>=320) then
-> set result = "grade B";
-> elseif (final<=320 and final>=280) then
-> set result = "grade C";
-> end if;
-> return(result);
-> end /
```

I ADDED THE RESULT IN THE FINAL TABLE

FOR THE GRADES FOR PERSONS

```
mysql> select * from student_s20200010212;
```

stu_id	stu_name	stu_dept	dob	Course1	Course2	Course3	Course4	grade
2505	peter	Finance	08/25/2002	80	34	45	89	A
2506	Mark	HR	03/25/1980	35	45	78	90	B
2507	Donald	Finance	12/26/1995	45	12	98	34	C
2508	Obama	Management	10/30/1990	84	56	98	45	B
2509	Linklon	HR	08/08/2008	21	77	78	56	A
2510	Kane	Sales	01/01/2000	13	88	67	67	B
2511	Adam	Management	10/25/2009	56	99	45	99	A
2512	Mac	Finance	06/09/1970	76	0	55	99	A
2513	Manas	Accounts	12/11/1990	24	43	55	100	B
2514	Vasin	Accounts	10/10/1989	87	55	66	10	B
2515	Ram	CSE	10/10/1989	99	98	89	90	A

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