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Class : TE 10

SL1 ASSIGNMENT 9

Problem Statement : Write and execute PL/SQL stored procedure and function to perform a suitable task on above DB.

Procedure for calculating the count of cities of a particular country

```
mysql> create procedure citycount(in code varchar(3), out city_count int)
    -> begin
    -> select count(*) into city_count from city where country_code = code;
    -> end$$
Query OK, 0 rows affected (0.00 sec)

mysql> delimiter ;

mysql> select * from city;
+----+---------------+--------------+
| id | city_name     | country_code |
+----+---------------+--------------+
|  1 | pune          | ind          |
|  2 | new york      | usa          |
|  3 | saitama       | jpn          |
|  4 | berlin        | gry          |
|  5 | paris         | frn          |
|  6 | mumbai        | ind          |
|  7 | kolkata       | ind          |
|  8 | san fransisco | usa          |
|  9 | chicago       | usa          |
| 10 | tokyo         | jpn          |
| 11 | kasukabe      | jpn          |
| 12 | munich        | gry          |
| 13 | hamburg       | gry          |
| 14 | lyon          | frn          |
| 15 | lille         | frn          |
+----+---------------+--------------+
15 rows in set (0.00 sec)

mysql> call citycount('jpn' , @city_count);
Query OK, 1 row affected (0.00 sec)

mysql> select @city_count;
+-------------+
| @city_count |
+-------------+
|           3 |
+-------------+
1 row in set (0.00 sec)
```

Student marks(name, total marks)
Result(Rollno, class)
Write a stored procedure for the categorization of the student if marks scored by the student in examination is <= 1500 and marks>=990 then student will be placed in distinction category. If marks scored are between 989 and 900 then category is first class. If marks are between 899 and 825 then category is higher second class

```
mysql> create table student_marks(roll_no int, name varchar(20), marks int);
Query OK, 0 rows affected (0.02 sec)

mysql> create table result(roll_no int, class varchar(50));
Query OK, 0 rows affected (0.02 sec)

mysql> insert into student_marks values(1, 'prajakta', 920), (2, 'rishita',
830), (3, 'roma', 1200);
Query OK, 3 rows affected (0.00 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> select * from student_marks;
+---------+----------+-------+
| roll_no | name     | marks |
+---------+----------+-------+
|       1 | prajakta |   920 |
|       2 | rishita  |   830 |
|       3 | roma     |  1200 |
+---------+----------+-------+
3 rows in set (0.00 sec)

create procedure calc_result(in marks int, in roll_no int)
begin if marks <= 1500 and marks >= 990 then insert into result values(roll_no,
'distinction'); elseif marks <= 989 and marks >= 900 then insert into result
values(roll_no, 'first class'); elseif marks <= 899 and marks >= 825 then insert
into result values(roll_no, 'second class'); end if; end $$

mysql> call calc_result(920, 1);
Query OK, 1 row affected (0.01 sec)

mysql> call calc_result(830, 2);
Query OK, 1 row affected (0.00 sec)

mysql> call calc_result(1200, 3);
Query OK, 1 row affected (0.00 sec)

mysql> select * from result;
+---------+--------------+
| roll_no | class        |
+---------+--------------+
|       1 | first class  |
|       2 | second class |
|       3 | distinction  |
+---------+--------------+
3 rows in set (0.00 sec)
```

Functions (same problem as above)

```
mysql> delimiter $$
mysql> create function result(marks int)
    -> returns varchar(20)
    -> deterministic
    -> begin
    -> declare class varchar(20);
    -> if marks >=990 and marks <= 1500 then
    -> set class = 'distinction';
    -> elseif marks >=900 and marks <= 989 then
    -> set class = 'first class';
    -> elseif marks >=825 and marks <=899 then
    -> set class = 'second class';
    -> end if;
    -> return class;
    -> end $$
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;

mysql> select roll_no, name, marks, result(marks) as class from student;
+---------+----------+-------+--------------+
| roll_no | name     | marks | class        |
+---------+----------+-------+--------------+
|       1 | prajakta |   920 | first class  |
|       2 | rishita  |   830 | second class |
|       3 | roma     |  1200 | distinction  |
+---------+----------+-------+--------------+
3 rows in set (0.00 sec)
```