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Institute of computer technology

Ganpat university

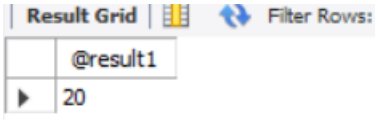
B.tech. CSE (CBA/BDA/CS)

(2CSE301) DATABASE MANAGEMENT SYSTEM

PRACTICAL 14 (Stored Function)

1. Create a function findmax() which returns max number from given two number.

```
delimiter //
create function findmax_and_store (num1 int , num2 int )
returns int
deterministic
no sql
begin
declare max_num int ;
   if num1> num2 then
        set max_num = num1;
else
        set max_num = num2;
      end if ;
      RETURN max_num;
end;
   //

   set @result1 = findmax_and_store(10, 20);
   select @result1;
```

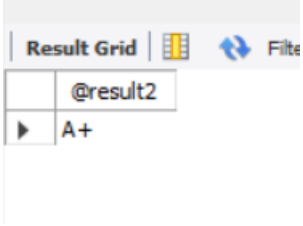


2. Create a function findgrade() Calculate grade based on marks and returns grade.

Marks	Grade
Marks>=90	A+
Marks<90 and Marks>=80	A
Marks <80 and Marks >=70	B+

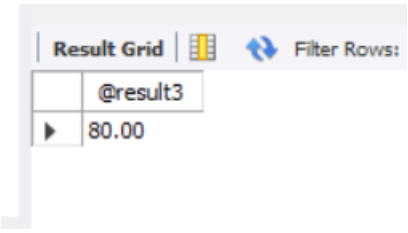
Marks <70 and Marks >=60	B
Marks <60 and Marks >=50	C+
Marks<50 and Marks >=40	C
Marks<40	F

```
delimiter //
create function findgrade(marks int )
returns varchar (2)
deterministic
no sql
begin
        declare grade varchar (2);

   if makrs >= 90 then
                set grade = 'A+';
       else if marks >= 80 then
                set grade = 'A';
       elseif marks >= 70 then
                set grade = 'B+';
       elseif marks >= 60 then
                set grade = 'B';
   elseif marks >= 50 then
      set grade = 'C+';
        elseif marks >= 40 then
      set grade = 'C';
        else
      set grade = 'F';
        end if ;

                return grade;
      end;
      delimiter  ;

   set @result2 = findgrade(90);
   select @result2;
```



3. Create function which returns Percentage of student from student table based on rollno.

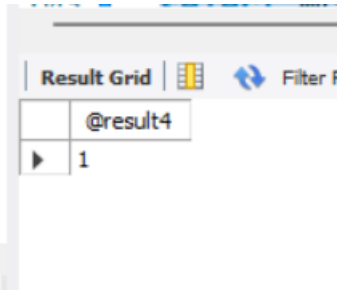
```
delimiter //
create function getStudentPercentage(roll_no int)
returns decimal (5,2)
deterministic
reads sql data
begin
declare percentage decimal(5,2);
    select marks_obtained / total_marks * 100
    into percentage
    from student
    where student_rollno = roll_no;
    return percentage;

end;
//
delimiter ;

drop function getStudentPercentage;

set @result3 = getStudentPercentage(3);
select @result3;
```



4. Create function which returns number of student from student table based on branch.

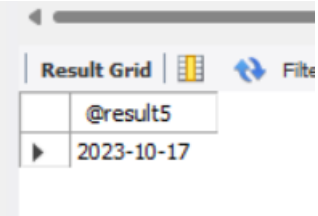
```
delimiter //
create function countStudentByBranch(branch_name varchar(100))
returns int
deterministic
reads sql data
begin
```

```
declare student_count int ;

    select count(*) into student_count
    from student
    where branch = branch_name;

    return student_count;
end;
//
delimiter ;

set @result4 = countStudentByBranch('cs');
select @result4;
```



5. Create a function that returns yesterday's date.

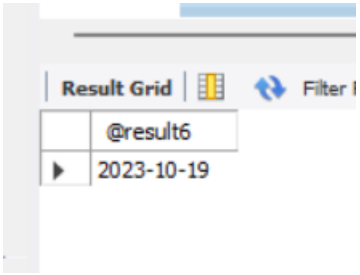
```
DELIMITER //
CREATE FUNCTION getYesterdayDate()
RETURNS DATE
DETERMINISTIC
NO SQL
BEGIN
 RETURN DATE_SUB(CURDATE(), INTERVAL 1 DAY);
END;
//
DELIMITER ;
SET @result5 = getYesterdayDate();
SELECT @result5;
```



6. Create a function that returns tommorrow's date.

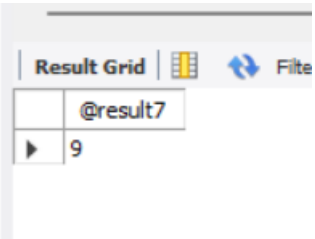
```
DELIMITER //
CREATE FUNCTION getTomorrowDate()
```

```
RETURNS DATE
DETERMINISTIC
NO SQL
BEGIN
 RETURN DATE_ADD(CURDATE(), INTERVAL 1 DAY);
END;
//
DELIMITER ;
SET @result6 = getTomorrowDate();
SELECT @result6;
```



7. Create a function that Calculate number of days between two date and returns it .

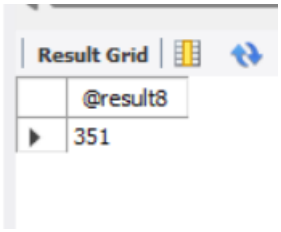
```
DELIMITER //
CREATE FUNCTION calculateDaysBetweenDates(date1 DATE, date2 DATE)
RETURNS INT
DETERMINISTIC
NO SQL
BEGIN
 RETURN DATEDIFF(date1, date2);
END;
//
DELIMITER ;
SET @result7 =calculateDaysBetweenDates('2023-10-10', '2023-10-1');
SELECT @result7;
```



8. Create a function that Calculate number of days between today and your birthdate returns it.

```
DELIMITER //
CREATE FUNCTION calculateDaysToBirthday(birthdate DATE)
RETURNS INT
DETERMINISTIC
NO SQL
BEGIN
```

```
 RETURN DATEDIFF(birthdate, CURDATE());
END;
//
DELIMITER ;
SET @result8 =calculateDaysToBirthday('2024-10-03');
SELECT @result8;
```



9. Create a function that Calculate Age From Date Of Birth and returns age.

```
DELIMITER //
CREATE FUNCTION calculateAgeFromDateOfBirth(birthdate DATE)
RETURNS INT
DETERMINISTIC
NO SQL
BEGIN
 RETURN YEAR(CURDATE()) - YEAR(birthdate) - (DATE_FORMAT(CURDATE(),
'%m%d') < DATE_FORMAT(birthdate, '%m%d'));
END;
//
DELIMITER ;
SET @result9 =calculateAgeFromDateOfBirth('2004-10-03');
SELECT @result9;
```