

MARIADB FINAL ASSESSMENT

Challenge 1

EMI Calculations are done in most of the modules of the banking application. To have greater control over this, Bank decides to create the EMI calculation function in MariaDB so that any application module can access it when needed.

This Function needs three inputs passed as parameters:

- 1) Loan Amount
- 2) Duration
- 3) Interest Rate.

Develop a Function which can perform a simple interest calculation and returns EMI amount to calling module.

```
DELIMITER //
CREATE FUNCTION CalEMI ( amount INT, interest INT, time INT )
RETURNS INT DETERMINISTIC
BEGIN
    DECLARE emi INT;
    SET emi = 0;
    Interest = interest / (12 * 100);
    Time = time * 12;
    SET emi = (amount * interest * pow(1 + interest, time)) / (pow(1 + interest, time) - 1);
    RETURN emi;
END; //
DELIMITER ;
```

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Challenge 2

Assuming that the value of a machinery depreciates at 10% of its price every year a procedure / Function is needed to show the depreciated values for 10 years. Parameter needed is price of machinery.

```
DELIMITER //
CREATE FUNCTION CalDepricate (IN price INT, OUT result varchar(200) )
BEGIN
DECLARE I INT UNSIGNED
    DEFAULT 0;
WHILE I < 10 DO
    DECLARE emi INT;
    SET price = price / 10;
    SET result := concate(result, price, ",");
END WHILE;
END; //
DELIMITER ;
```