## Section 5: Automating tasks

Create Functions

a.) Get the total discount, if any.

**DELIMITER** $$

**CREATE** **FUNCTION** Discount

(Quantity int, Price float, PurchasingAmt float)

**RETURNS** INT

**DETERMINISTIC**

**BEGIN**

**DECLARE** discount INT;

**SET** discount = Quantity \* Price - PurchasingAmt;

**RETURN** discount;

**END**$$

**DELIMITER** ;

b.) Get the days/month/year elapsed since the last purchase of a customer depending on input from the user.

**DELIMITER** $$

**CREATE** **FUNCTION** Time\_Elapsed

(val varchar(**4**), date\_last\_purchase date)

**RETURNS** INT

**DETERMINISTIC**

**BEGIN**

**DECLARE** time\_elapsed INT;

**SET** time\_elapsed = IF(val='day', DATEDIFF(NOW(), date\_last\_purchase), **YEAR**(NOW()) - **YEAR**(date\_last\_purchase));

**RETURN** time\_elapsed;

**END**$$

**DELIMITER** ;

Create Stored Procedures   
a.) Identify whether a particular transaction amount (purchase amount) is 'correct' or 'not correct'.  
  
It is correct if price and quantity are used to calculate without a coupon. In case of a coupon, the coupon amount should be deducted from the original amount given the original amount is greater than equal to min purchase for a coupon; else you can simply calculate original amount based on quantity. [Input will be transaction id] [Note: Look out for null coupon ids]

**DELIMITER** $$

**CREATE** **PROCEDURE** PurchaseAmountValidation (**IN** p1 varchar(**32**), **OUT** p2 varchar(**128**))

**BEGIN**

**SELECT**

IF(PurchasingAmt != totalamt, 'not correct', 'correct') **AS** message

**INTO** p2

**FROM** (

**SELECT** CT.PurchasingAmt,

IF( CT.coupon\_id **IS** **NOT** **NULL** **AND** Quantity \* Price >= Min\_Purchase, Quantity \* Price - IF(couponType != 'Flat', Quantity \* Price \* Value \* **0**.**01**, Value), Quantity \* Price) **AS** totalamt

**FROM**

Item **AS** I

**JOIN**

CustomerTransactionData **AS** CT

**ON** I.Item\_Id = CT.item\_id

**LEFT** **JOIN** CouponMapping **AS** CM

**ON** CT.coupon\_id = CM.coupon\_id

**WHERE** CT.Trans\_Id = p1) **AS** T;

**END** $$

**DELIMITER** ;

**CALL** PurchaseAmountValidation('TID00240', @p2);

**SELECT** @p2;