Stored Program #1: Develop Stored Program

```
DELIMITER //
CREATE OR REPLACE PROCEDURE reordernecessary ()
BEGIN
Alter Table productCategory
ADD COLUMN IF NOT EXISTS reorderNecessary BOOL NOT NULL;
SELECT productCategory.modelInventoryCount, productCategory.modelReorderQuantity,
productCategory.reorderNecessary
FROM productCategory;
UPDATE productCategory
SET productCategory.reorderNecessary = 1
WHERE productCategory.modelInventoryCount <= productCategory.modelReorderQuantity;
END //
DELIMITER ;
```

```
CALL `reordernecessary`();
```

Execution results of routine `reordernecessary`

modelInventoryCount	modelReorderQuantity	reorderNecessary
1	1	1
3	1	0
2	1	0
3	2	0
4	2	0
2	1	0
2	2	1
0	1	1
0	1	1
0	1	1
1	2	1

Stored Program #2: Convert Existing Stored Program

```
DELIMITER //
CREATE FUNCTION ValidateCreditCard (creditCardNum VARCHAR(16)) RETURNS varchar(10)
BEGIN
  DECLARE counter INT;
  DECLARE sum INT;
  DECLARE number INT;
  DECLARE tmp INT;
  IF creditCardNum IS NOT NULL AND char_length(rtrim(creditCardNum))=16 THEN
  SET counter=1;
  END IF;
    WHILE counter<=char_length(rtrim(creditCardNum)) AND (substring(creditCardNum,counter,1))=1 REGEXP '^-?[0-
9]+$'
      DO
       SET counter=counter+1;
      END WHILE;
    SET sum=0;
    SET number=0;
    SET counter=char_length(rtrim(creditCardNum));
    WHILE counter>0
      DO
       IF counter>1
        THEN
         SET tmp=(ASCII(substring(creditCardNum,counter-1,1))-48)*2;
         IF tmp>9 THEN
          SET sum=sum+tmp-9;
         ELSE
          SET sum=sum+tmp;
         END IF;
        END IF;
        SET number=number+(ASCII(substring(creditCardNum,counter,1))-48);
        SET counter=counter-2;
      END WHILE;
   SET sum=(sum+number) % 10;
    IF sum=0 AND creditCardNum IS NOT NULL AND char_length(rtrim(creditCardNum))=16 THEN RETURN 'Valid'; ELSE
RETURN 'Not Valid!';
END IF;
END //
DELIMITER ;
```

Run SQL query/queries on database 4407Group4: ⊘

```
1 SELECT ValidateCreditCard ('5268080043376894');
```

Clear   Format   Get auto-saved query

☐ Bind parameters ⊘

Delimiter | ; | ☑ Show this query here again   ☐ Retain query box   ☐ Rollback when finished   ☑ Enable foreign key checks

Hide query box

✔ Showing rows 0 - 0 (1 total, Query took 0.0010 seconds.)

SELECT ValidateCreditCard ('5268080043376894')

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: | 25 ✔ | Filter rows: | Search this table

+ Options

ValidateCreditCard ('5268080043376894')

Valid

☐ Show all | Number of rows: | 25 ✔ | Filter rows: | Search this table

Query results operations

🖨 Print   ✂ Copy to clipboard   📧 Export   📊 Display chart   🗔 Create view