1.

```
CREATE DATABASE DepartmentStoreDB;
USE DepartmentStoreDB;
CREATE TABLE ITEM (
   item_number INT PRIMARY KEY,
   name VARCHAR(100),
   department_number INT,
   price_per_unit DECIMAL(10, 2),
   quantity_in_stock INT,
   cost_per_unit DECIMAL(10, 2),
   FOREIGN KEY (department_number) REFERENCES DEPT(department_number)
);
CREATE TABLE EMP (
   employee_number INT PRIMARY KEY,
   name VARCHAR(100),
   annual_salary DECIMAL(10, 2),
   sales_commission DECIMAL(5, 2),
   department_number INT,
   FOREIGN KEY (department_number) REFERENCES DEPT(department_number)
);
CREATE TABLE DEPT (
   department_number INT PRIMARY KEY,
   name VARCHAR(100),
   manager_employee_number INT,
   FOREIGN KEY (manager_employee_number) REFERENCES EMP(employee_number)
);
```

```
CREATE TABLE SALES (
    sale_id INT AUTO_INCREMENT PRIMARY KEY,
    item_number INT,
    employee_number INT,
    sale_datetime DATETIME,
    quantity INT,
    sold_price DECIMAL(10, 2),
    FOREIGN KEY (item_number) REFERENCES ITEM(item_number),
    FOREIGN KEY (employee_number) REFERENCES EMP(employee_number)
);
```

2.

```
CREATE PROCEDURE insertsales (
    IN employee_number INT,
    IN item_number INT,
    IN quantity INT
)
BEGIN
    DECLARE current_price DECIMAL(10, 2);
    DECLARE sale_datetime DATETIME;

    SELECT price_per_unit INTO current_price FROM ITEM WHERE item_number = item_number;
    SET sale_datetime = NOW();

    INSERT INTO SALES (item_number, employee_number, sale_datetime, quantity, sold_price)
    VALUES (item_number, employee_number, sale_datetime, quantity, current_price);
END;
```

3.

```
CREATE TRIGGER trg_update_item_and_commission AFTER INSERT ON SALES
FOR EACH ROW
BEGIN
   UPDATE ITEM SET quantity_in_stock = quantity_in_stock - NEW.quantity WHERE item_number = NEW.item_number;
   CALL updatecomm(NEW.employee_number, NEW.item_number, NEW.quantity);
END ;
```

4.

```
CREATE PROCEDURE updatecomm (
   @EmployeeNumber INT,
   @ItemNumber INT,
   @Quantity INT
)
AS
BEGIN
   DECLARE @Profit DECIMAL(10, 2);
   DECLARE @Commission DECIMAL(10, 2);

   -- Calculate profit for the sale
   SELECT @Profit = (@Quantity * (price_per_unit - cost_per_unit))
   FROM ITEM
   WHERE item_number = @ItemNumber;

   -- Calculate commission (10% of profit)
   SET @Commission = @Profit * 0.10;
```

```
    -- Update commission payable to the employee
    UPDATE EMP
    SET sales_commission = sales_commission + @Commission
    WHERE employee_number = @EmployeeNumber;
END;
```