DDL, Views and Triggers

Understand and run the following SQL queries (using the MySQL command line interface). Write down the purpose of each query.

1.
```
CREATE VIEW SalePerOrder_(your roll number)   AS
 SELECT orderNumber,
 SUM  (quantityOrdered * priceEach) total
 FROM orderDetails
 GROUP by orderNumber
 ORDER BY total DESC
```

2.
```
SELECT total
FROM salePerOrder_(your roll number)
WHERE orderNumber = 10102
```

3.
```
CREATE VIEW vwProducts_(your roll numer)  AS
SELECT productCode, productName, buyPrice
FROM products
WHERE buyPrice > (
    SELECT AVG  (buyPrice) FROM  products
)
ORDER BY buyPrice DESC
```

4.
```
CREATE VIEW officeInfo_(your roll numer)
 AS
  SELECT officeCode, phone, city
  FROM offices
```

5.
```
UPDATE officeInfo
 SET phone = 'your phone number'
 WHERE officeCode = 4
```

6.
```
CREATE VIEW organization_(your roll number)
  AS
  SELECT CONCAT (E.lastname,E.firstname) AS Employee,
      CONCAT  (M.lastname,M.firstname) AS Manager
  FROM employees AS E
  INNER JOIN employees AS M
    ON M.employeeNumber = E.ReportsTo
  ORDER BY Manager
```

7.
```
SHOW CREATE VIEW organization_(your roll number)
```

8.
```
ALTER VIEW organization_(your roll number)
 AS
 SELECT CONCAT(E.lastname,E.firstname) AS Employee,
     E.email AS  employeeEmail,
     CONCAT(M.lastname,M.firstname) AS Manager
 FROM employees AS E
 INNER JOIN employees AS M
  ON M.employeeNumber = E.ReportsTo
 ORDER BY Manager
```

9.
```
DROP VIEW IF EXISTS organization_(your roll number)
```

10.

```
CREATE TABLE employees_audit (
id int(11) NOT NULL AUTO_INCREMENT,
employeeNumber int(11) NOT NULL,
lastname varchar(50) NOT NULL,
changedon datetime DEFAULT NULL,
action varchar(50) DEFAULT NULL,
PRIMARY KEY (id)
)
```


11.
Set the delimiter to | before running the following query

```
CREATE TRIGGER before_employee_update_(your roll number)
BEFORE UPDATE ON employees
FOR EACH ROW
BEGIN
        INSERT INTO employees_audit
        SET action = 'update',
        employeeNumber = OLD.employeeNumber,
        lastname = OLD.lastname,
        changedon = NOW();
END|
```

Update a record in the employees table and check the employees_audit table.

Why do you think we need to change the delimiter?

12.
```
SELECT * FROM Information_Schema.Triggers
WHERE Trigger_schema = 'classicmodels' AND
    Trigger_name = 'before_employee_update_(your roll number)';
```

13.
```
DROP TRIGGER before_employee_update_(your roll number)
```