Views

```sql
-- Q1
CREATE OR REPLACE VIEW view1 AS
SELECT t1.ename, t2.cname, t2.salary, t2.jDate, t1.city, t3.cities
FROM employee t1, emp_company t2, company t3
WHERE t1.ename=t2.ename AND t2.cname=t3.cname AND t1.city=t3.cities;

SELECT * FROM view1;

-- Q2
-- View with single table is updateable. But the changes reflect on original table as well.
UPDATE view1 SET jdate='1999-12-10'
WHERE ename='anil';

SELECT * FROM view1;

-- Q3
CREATE OR REPLACE view v1 AS
SELECT ename, salary, cname FROM emp_company
WHERE cname='ACC';

-- Q4
INSERT INTO emp_company VALUES('Ashok', 'Acc', 1200, NULL);

-- Q5
SELECT * FROM v1;

-- Q6
CREATE OR REPLACE view v2 AS
SELECT ename, salary, cname FROM emp_company
WHERE cname='ACC'
WITH CHECK OPTION;

-- Q7
CREATE OR REPLACE VIEW view2 AS
SELECT cname, AVG(salary), MAX(salary), MIN(salary)
FROM emp_company
GROUP BY cname;

SELECT * FROM view2;

-- Q8
CREATE OR REPLACE VIEW view4 AS
SELECT CONCAT(ename,'-' ,cname) AS 'Employee Company_Name', salary
FROM emp_company WHERE jDate>'1998-02-01';
```

```sql
SELECT * FROM view4;

-- Q9
CREATE OR REPLACE VIEW view3 AS
SELECT e.ename, c.salary, e.city
FROM employee e, emp_company c
WHERE e.ename=c.ename;

SELECT * FROM view3;

-- Q10
 SELECT e.ename, e.salary
 FROM (SELECT ename, salary FROM emp_company ORDER BY salary DESC LIMIT 5) e;

-- Q11
SELECT * FROM emp_company
ORDER BY jDate DESC LIMIT 5;
```

Outputs

```
mysql> source /Users/muhammadwaseem/Documents/GitHub/Undergraduate/LabSolutions/Semester-IV/DBMS/Ex5/views.sql
Query OK, 0 rows affected (0.00 sec)

+---------+-------+--------+------------+---------+---------+
| ename   | cname | salary | jDate      | city    | cities  |
+---------+-------+--------+------------+---------+---------+
| anil    | Acc   |   1500 | 1999-12-10 | nagpur  | nagpur  |
| shankar | Tata  |   2000 | 1990-07-10 | bombay  | bombay  |
| jaya    | CMC   |   1800 | 1991-06-07 | chennai | chennai |
| sunil   | CMC   |   1700 | 1988-01-01 | bombay  | bombay  |
+---------+-------+--------+------------+---------+---------+
4 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
Rows matched: 1  Changed: 0  Warnings: 0

+---------+-------+--------+------------+---------+---------+
| ename   | cname | salary | jDate      | city    | cities  |
+---------+-------+--------+------------+---------+---------+
| anil    | Acc   |   1500 | 1999-12-10 | nagpur  | nagpur  |
| shankar | Tata  |   2000 | 1990-07-10 | bombay  | bombay  |
| jaya    | CMC   |   1800 | 1991-06-07 | chennai | chennai |
| sunil   | CMC   |   1700 | 1988-01-01 | bombay  | bombay  |
+---------+-------+--------+------------+---------+---------+
4 rows in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)

Query OK, 1 row affected (0.00 sec)

+--------+--------+-------+
| ename  | salary | cname |
+--------+--------+-------+
| anil   |   1500 | Acc   |
| amol   |   1000 | Acc   |
| suresh |   8000 | Acc   |
| Ashok  |   1200 | Acc   |
| Ashok  |   1200 | Acc   |
| Ashok  |   1200 | Acc   |
| Ashok  |   1200 | Acc   |
| Ashok  |   1200 | Acc   |
| Ashok  |   1200 | Acc   |
+--------+--------+-------+
9 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

+---------------+-------------+-------------+-------------+
| cname         | AVG(salary) | MAX(salary) | MIN(salary) |
+---------------+-------------+-------------+-------------+
| Acc           |   1966.6667 |        8000 |        1000 |
| Tata          |   3333.3333 |        5000 |        2000 |
| CMC           |   3833.3333 |        8000 |        1700 |
| Hyundai Mobis |  30000.0000 |       30000 |       30000 |
+---------------+-------------+-------------+-------------+
4 rows in set (0.00 sec)
```

```
Query OK, 0 rows affected (0.00 sec)

+-----------------------+--------+
| Employee Company_Name | salary |
+-----------------------+--------+
| anil-Acc              |   1500 |
| kiran-Hyundai Mobis   |  30000 |
+-----------------------+--------+
2 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

+---------+--------+----------+
| ename   | salary | city     |
+---------+--------+----------+
| anil    |   1500 | nagpur   |
| shankar |   2000 | bombay   |
| jaya    |   1800 | chennai  |
| sunil   |   1700 | bombay   |
| vijay   |   5000 | delhi    |
| prakash |   3000 | calcutta |
| ajay    |   8000 | nagpur   |
| suresh  |   8000 | NULL     |
+---------+--------+----------+
8 rows in set (0.00 sec)

+---------+--------+
| ename   | salary |
+---------+--------+
| kiran   |  30000 |
| ajay    |   8000 |
| suresh  |   8000 |
| vijay   |   5000 |
| prakash |   3000 |
+---------+--------+
5 rows in set (0.00 sec)

+--------+---------------+--------+------------+
| ename  | Cname         | Salary | Jdate      |
+--------+---------------+--------+------------+
| anil   | Acc           |   1500 | 1999-12-10 |
| kiran  | Hyundai Mobis |  30000 | 1998-12-18 |
| ajay   | CMC           |   8000 | 1995-04-30 |
| amol   | Acc           |   1000 | 1995-03-17 |
| jaya   | CMC           |   1800 | 1991-06-07 |
+--------+---------------+--------+------------+
5 rows in set (0.00 sec)
```