CSC742 HW5

Solution

22.13
(a)
GRANT SELECT ON EMPLOYEE, DEPARTMENT, DEPT_LOCATION, WORKS_ON, PROJECT TO A WITH GRANT OPTION

GRANT INSERT, DELETE, UPDATE ON EMPLOYEE, DEPARTMENT, DEPT_LOCATION, WORKS_ON, PROJECT TO A WITH GRANT OPTION

(b)
CREATE VIEW V_EMPLOYEE AS
   SELECT FName, MINIT, LNAME, SSN, BDATE, ADDRESS, SEX, SUPERSSN, DNO
   FROM EMPLOYEE

CREATE VIEW V_DEPARTMENT AS
   SELECT DNAME, DNUMBER
   FROM DEPARTMENT

GRANT SELECT ON V_EMPLOYEE, V_DEPARTMENT TO B

(c)
GRANT SELECT ON WORKS_ON TO C
GRANT INSERT, DELETE, UPDATE ON WORKS_ON TO C

CREATE VIEW V_EMPLOYEE1 AS
   SELECT FName, MINIT, LNAME, SSN
   FROM EMPLOYEE

CREATE VIEW V_PROJECT AS
   SELECT PNAME, PNUMBER
   FROM PROJECT

GRANT SELECT ON V_EMPLOYEE1, V_PROJECT TO C

(d)
GRANT SELECT ON EMPLOYEE, DEPENDENT TO D
GRANT INSERT, DELETE, UPDATE ON DEPENDENT TO D

(e)
CREATE VIEW V_EMPLOYEE2 AS
SELECT * 
FROM EMPLOYEE 
WHERE DNO=3 

GRANT SELECT ON V_EMPLOYEE2 TO E 

22.15 
(a) 
<table>
<thead>
<tr>
<th>Name</th>
<th>Salary</th>
<th>JobPerformance</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith</td>
<td>U</td>
<td>null</td>
<td>U</td>
</tr>
</tbody>
</table>

(b) DBMS will create another instance of Smith tuple, the result will be: 
<table>
<thead>
<tr>
<th>Name</th>
<th>Salary</th>
<th>JobPerformance</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith</td>
<td>U</td>
<td>40000</td>
<td>C</td>
</tr>
<tr>
<td>Smith</td>
<td>U</td>
<td>40000</td>
<td>Excellent</td>
</tr>
<tr>
<td>Smith</td>
<td>U</td>
<td>50000</td>
<td>null</td>
</tr>
<tr>
<td>Brown</td>
<td>C</td>
<td>80000</td>
<td>Good</td>
</tr>
</tbody>
</table>

8.18 
(a) 
CREATE VIEW V_DEPARTMENT AS 
SELECT D.DNAME, E.FNAME, E.MINIT, E.LNAME, E.SALARY 
FROM DEPARTMENT D, EMPLOYEE E 
WHERE D.MGRSSN=E.SSN 

(b) 
CREATE VIEW V_EMPLOYEE (E_FNAME, E_MINIT, E_LNAME, MGR_FNAME, 
MGR_MINIT, MGR_LNAME, E_SALARY) AS 
SELECT E.FNAME, E.MINIT, E.LNAME, E1.FNAME, E1.MININT, E1.LNAME, 
E.SALARY 
FROM EMPLOYEE E, DEPARTMENT D, EMPLOYEE E1 
WHERE E.SUPPERSN = E1.SSN AND 
E.DNO = D.DNUMBER AND 
D.DNAME = "Research" 

c) 
CREATE VIEW V_PROJECT (PNAME, DNAME, ENUMBER, TOTALHOURS) AS 
SELECT P.PNAME, D.DNAME, COUNT(*), SUM(W.HOURS) 
FROM PROJECT P, DEPARTMENT D, WORKS_ON W 
WHERE W.PNO = P.PNUMBER AND P.DNUM = D.DNUMBER 
GROUP BY P.PNAME, D.DNAME
d) CREATE VIEW V_PROJECT (PNAME, DNAME, ENUMBER, TOTALHOURS) AS
   SELECT P.PNAME, D.DNAME, COUNT (*), SUM (W.HOURS)
   FROM PROJECT P, DEPARTMENT D, WORKS_ON W
   WHERE W.PNO = P.PNUMBER AND P.DNUM = D.DNUMBER
   GROUP BY P.PNAME, D.DNAME
   HAVING COUNT (*) > 1

8.19(c)

<table>
<thead>
<tr>
<th>D</th>
<th>AVERAGE_S</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
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