

DBMS - LAB 5(UE19CS304)

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TASK 1: SQL DML

1a.

```
company=# create table temp434(lastname varchar(15) not null, projectname varchar not null, hours decimal(3,1) not null);
CREATE TABLE
company=# insert into temp434(lastname,projectname,hours) select lname,pname,hours from employee as e, project as p, works_on as w where w.essn = e.ssn and w.pno = p.number;
```

```
company=# select * from temp434;
```

lastname	projectname	hours
Smith	ProductX	32.5
Smith	ProductY	7.5
Narayan	ProductZ	40.0
English	ProductX	20.0
English	ProductY	20.0
Wong	ProductY	10.0
Wong	ProductZ	10.0
Wong	Computerization	10.0
Wong	Reorganization	10.0
Zelaya	Newbenefits	30.0
Zelaya	Computerization	10.0
Jabbar	Computerization	35.0
Jabbar	Newbenefits	5.0
Wallace	Newbenefits	20.0
Wallace	Reorganization	15.0

(15 rows)

1b.

```
Windows PowerShell

company=# update project set Plocation = 'Bellaire' where Pnumber = 10;
UPDATE 1
company=# update project set Dnum = 5 where Pnumber = 10;
UPDATE 1
company=# select * project
company=# select from * project;
ERROR: syntax error at or near "project"
LINE 1: select * project
               ^
company=# select * from project;
  pname | pnumber | plocation | dnum
-----+-----+-----+-----
ProductX |      1 | Bellaire |    5
ProductY |      2 | Sugarland |    5
ProductZ |      3 | Houston |    5
Reorganization |    20 | Houston |    1
Newbenefits |    30 | Stafford |    4
Computerization |    10 | Bellaire |    5
(6 rows)
```

```
Windows PowerShell

company=# select * from department;
  dname | dnumber | mgr_ssn | mgr_start_date
-----+-----+-----+-----
Research |      5 | 333445555 | 1988-05-22
Administration |    4 | 987654321 | 1995-01-01
Headquarters |    1 | 888665555 | 1981-06-19
(3 rows)

company=# select * from employee;
  fname | minit | lname | ssn | bdate | address | gender | salary | super_ssn | dno
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
James | E | Borg | 888665555 | 1937-11-10 | 450 Stone, Houston, TX | M | 55000.00 |  | 1
John | B | Smith | 123456789 | 1965-01-09 | 731 Fondren, Houston, TX | M | 30000.00 | 888665555 | 5
Franklin | T | Wong | 333445555 | 1955-12-08 | 638 voss, Houston, TX | M | 40000.00 | 888665555 | 5
Alicia | J | Zelaya | 999887777 | 1968-01-19 | 3321 Castle, Spring, Tx | F | 25000.00 | 333445555 | 4
Jennifer | S | Wallace | 987654321 | 1941-06-20 | 291 Berry, Bellaire, Tx | F | 43000.00 | 333445555 | 4
Ramesh | K | Narayan | 666884444 | 1962-09-15 | 975 Fire Oak, Humble, TX | M | 38000.00 | 333445555 | 5
Joyce | A | English | 453453453 | 1972-07-31 | 5631 Rice, Houston, TX | F | 25000.00 | 333445555 | 5
Ahmed | V | Jabbar | 987987987 | 1969-03-29 | 980 Dallas, Houston, TX | M | 25000.00 | 987654321 | 4
(8 rows)
```

1c.

```
Windows PowerShell
company=# update employee set salary = (1.1)*salary where dno = 5;
UPDATE 4
company=# select * from employee;
```

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	M	55000.00		1
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, Tx	F	25000.00	333445555	4
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, Tx	F	43000.00	333445555	4
Ahmed	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	33000.00	888665555	5
Franklin	T	Wong	333445555	1955-12-08	638 voss, Houston, TX	M	44000.00	888665555	5
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	41800.00	333445555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	27500.00	333445555	5

(8 rows)

1d.

```
company=# delete from employee where lname='Brown';
DELETE 0
company=# select * from employee
company=# ;
```

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	M	55000.00		1
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	30000.00	888665555	5
Franklin	T	Wong	333445555	1955-12-08	638 voss, Houston, TX	M	40000.00	888665555	5
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, Tx	F	25000.00	333445555	4
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, Tx	F	43000.00	333445555	4
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	38000.00	333445555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	25000.00	333445555	5
Ahmed	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4

(8 rows)

1e.

```
Windows PowerShell
company=# alter table dependent
company=# drop constraint dependent_essn_fkey;
ALTER TABLE
company=# alter table employee drop constraint employee_super_ssn_fkey;
ALTER TABLE
company=# alter table employee drop constraint fkey_dno;
ALTER TABLE
company=# alter table department drop constraint department_mgr_ssn_fkey;
ALTER TABLE
company=# alter table works_on drop constraint works_on_essn_fkey;
ALTER TABLE
company=# delete from employee where ssn in(select essn from dependent);
DELETE 3
company=# select * from employee;
```

fname	minit	lname	ssn	bdate	address	gender	salary	super_ssn	dno
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	M	55000.00		1
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, Tx	F	25000.00	333445555	4
Ahmed	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	41800.00	333445555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	27500.00	333445555	5

(5 rows)

TASK 2:

2a.

```
company=# begin transaction;
BEGIN
company=# create table transaction434(name varchar(15), amount float, id int);
CREATE TABLE
company=# insert into transaction434(name,amount,id) values('sreyahsri',500.5, 434);
INSERT 0 1
company=# insert into transaction434(name,amount,id) values('naruto',1000,
34);
INSERT 0 1
company=# commit;
COMMIT
company=# select * from transaction434;
   name   | amount | id 
-----+-----+----
sreyahsri |  500.5 | 434
naruto    |   1000 |  34
(2 rows)
```

2b.

```
company=# begin transaction;
BEGIN
company=# insert into transaction434(name,amount,id) values('xyz',1000.0,43);
INSERT 0 1
company=# insert into transaction434(name,amount,id) values('sfd',1032.0,232);
INSERT 0 1
company=# Rollback;
ROLLBACK
company=# select * from transaction434;
   name   | amount | id 
-----+-----+----
sreyahsri |  500.5 | 434
naruto    |   1000 |  34
(2 rows)
```

2c.

```
company=# begin transaction;
BEGIN
company=## insert into transaction434(name,amount,id) values('barry',2000.0,3342);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('hellen',3000.0,4434);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('len',4000.0,2414);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('steve',5000.0,5434);
INSERT 0 1
company=## savepoint s1;
SAVEPOINT
company=## insert into transaction434(name,amount,id) values('eve',6000.0,7434);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('grite',7000.0,7454);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('gte',700.0,744);
INSERT 0 1
company=## insert into transaction434(name,amount,id) values('sundhar',70000.0,4524);
INSERT 0 1
company=## rollback to s1;
ROLLBACK
company=## end transaction;
COMMIT
company=# select * from transaction434;
   name   | amount | id
-----+-----+-----
sreyahsri |  500.5 |  434
naruto    |  1000 |   34
barry     |   2000 | 3342
hellen    |   3000 | 4434
len       |   4000 | 2414
steve     |   5000 | 5434
(6 rows)

company=# |
```