DBMS LAB ASSIGNMENT 2

Kandula Lohith AP20110010161 CSE C

1.

A) Consider the COMPANY database schema shown in the figure.

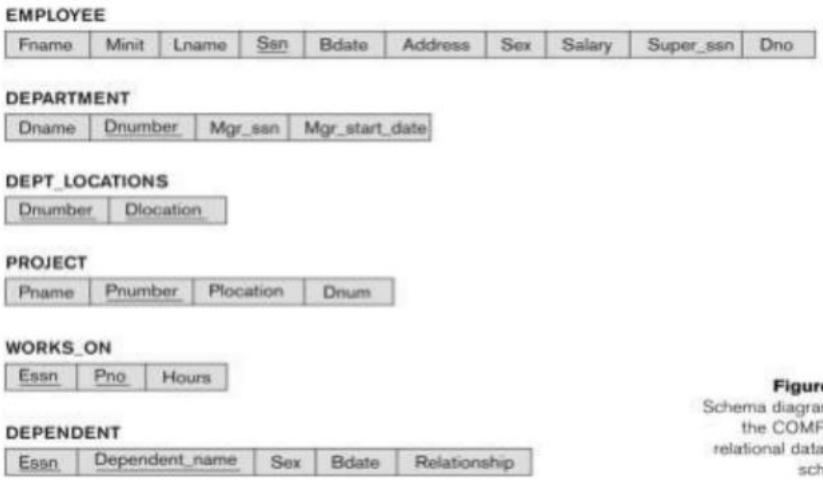


Figure 5.5
Schema diagram for the COMPANY relational database schema.

i. Create a view that has department Name, manager Name and manager salary for every department.

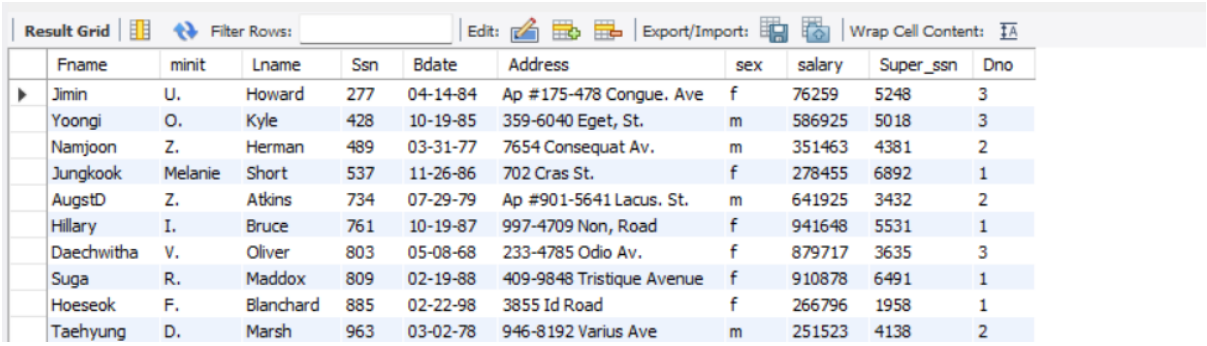
ii. Create a view that has project Name, controlling depart Name, number of employees, and total hours worked per week on the project for each project with more than one employee working on it.

iii. Create an updateable view for the relation DEPARTMENT

B) Create a materialized view for finding average salary of employees, average salary of managers, average salary for each department and department(s) which spend more money on salary for the employees.

C) Assume that Dno of EMPLOYEE relation has got NOT NULL constraint. Write a transaction which inserts tuples in to the relations EMPLOYEE and DEPARTMENT without affecting integrity constraints specified in the schema.

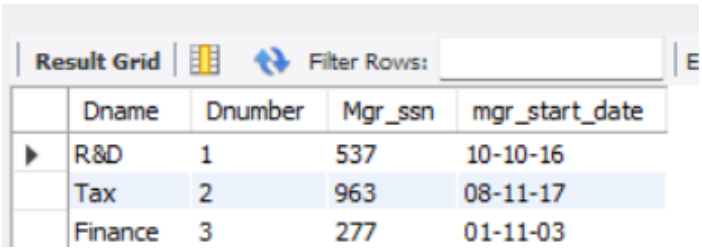
EMPLOYEE TABLE:



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

Fname	minit	Lname	Ssn	Bdate	Address	sex	salary	Super_ssn	Dno
Jimin	U.	Howard	277	04-14-84	Ap #175-478 Congue. Ave	f	76259	5248	3
Yoongi	O.	Kyle	428	10-19-85	359-6040 Eget, St.	m	586925	5018	3
Namjoon	Z.	Herman	489	03-31-77	7654 Consequat Av.	m	351463	4381	2
Jungkook	Melanie	Short	537	11-26-86	702 Cras St.	f	278455	6892	1
AugstD	Z.	Atkins	734	07-29-79	Ap #901-5641 Lacus. St.	m	641925	3432	2
Hillary	I.	Bruce	761	10-19-87	997-4709 Non, Road	f	941648	5531	1
Daechwitha	V.	Oliver	803	05-08-68	233-4785 Odio Av.	f	879717	3635	3
Suga	R.	Maddox	809	02-19-88	409-9848 Tristique Avenue	f	910878	6491	1
Hoeseok	F.	Blanchard	885	02-22-98	3855 Id Road	f	266796	1958	1
Taehyung	D.	Marsh	963	03-02-78	946-8192 Varius Ave	m	251523	4138	2

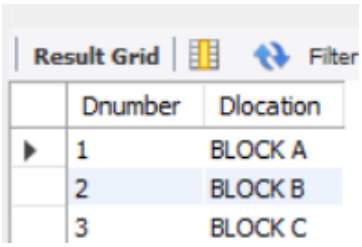
DEPARTMENT TABLE:



Result Grid | Filter Rows: | E

Dname	Dnumber	Mgr_ssn	mgr_start_date
R&D	1	537	10-10-16
Tax	2	963	08-11-17
Finance	3	277	01-11-03

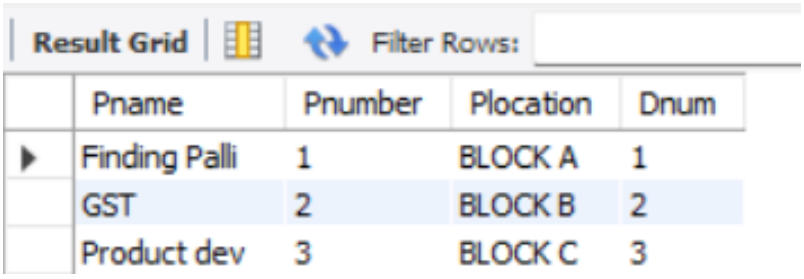
DEPT_LOCATIONS:



Result Grid | Filter

Dnumber	Dlocation
1	BLOCK A
2	BLOCK B
3	BLOCK C

PROJECT:

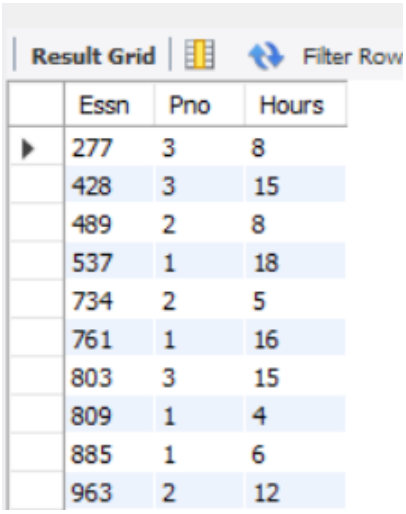


Result Grid | Filter Rows:

Pname	Pnumber	Plocation	Dnum
Finding Palli	1	BLOCK A	1
GST	2	BLOCK B	2
Product dev	3	BLOCK C	3

Kandula Lohith
AP20110010161
CSE-C

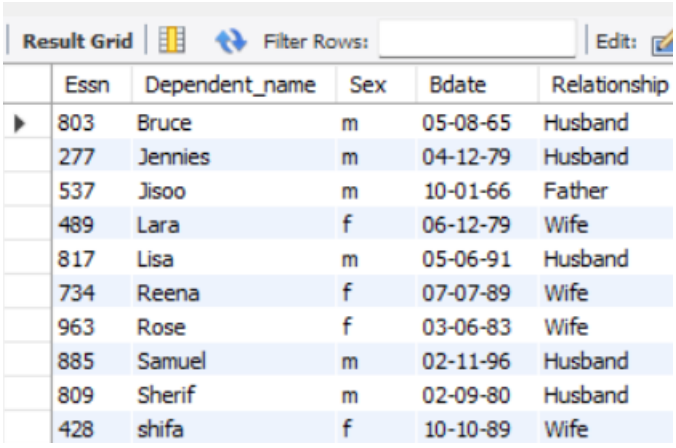
WORKS_ON:



Result Grid | Filter Row

Essn	Pno	Hours
277	3	8
428	3	15
489	2	8
537	1	18
734	2	5
761	1	16
803	3	15
809	1	4
885	1	6
963	2	12

DEPENDENT:



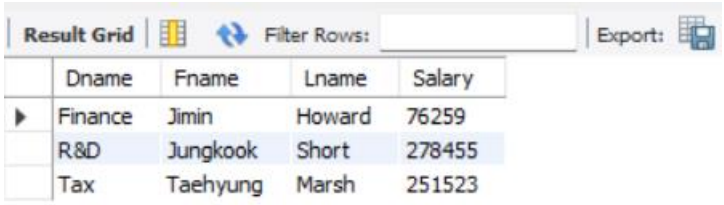
Result Grid | Filter Rows: | Edit:

Essn	Dependent_name	Sex	Bdate	Relationship
803	Bruce	m	05-08-65	Husband
277	Jennies	m	04-12-79	Husband
537	Jisoo	m	10-01-66	Father
489	Lara	f	06-12-79	Wife
817	Lisa	m	05-06-91	Husband
734	Reena	f	07-07-89	Wife
963	Rose	f	03-06-83	Wife
885	Samuel	m	02-11-96	Husband
809	Sherif	m	02-09-80	Husband
428	shifa	f	10-10-89	Wife

A.1)Create a view that has department name,manager Name and manager salary for every department.

```
create view manger_info

as select Dname, Fname, Lname, Salary

from Department, Employee where

Mgr_ssn = SSN group by Dname

SELECT * FROM manger_info;
```

Kandula Lohith
AP20110010161
CSE-C



Result Grid | Filter Rows: | Export:

Dname	Fname	Lname	Salary
Finance	Jimin	Howard	76259
R&D	Jungkook	Short	278455
Tax	Taehyung	Marsh	251523

2)Create a view that has project name,controllolling depart name, number of employees, and total hours worked per week on the project for each project with more than one employee working in it.

```
create view project_info as select Pname,

Dname, (select COUNT(*)

from Works_On W1

where W1.Pno = P1.Pnumber) as

Num_Employee,

(select SUM(W2.Hours)

from Works_On W2

where W2.Pno = P1.Pnumber

group by Pno) as Total_Hours

 from Project P1, Department D1

where P1.Dnum = D1.Dnumber;

SELECT * FROM project_info;
```

Kandula Lohith
AP20110010161
CSE-C

Result Grid | Filter Rows: | Export:

Pname	Dname	Num_Employee	Total_Hours
Finding Palli	R&D	4	44
GST	Tax	3	25
Product dev	Finance	3	38

3)Create an updateable view for the relation DEPARTMENT

Create view departments

As

Select Dname,Dnumber, Mgr_ssn,Mgr_start_date from

DEPARTMENT;

SELECT * FROM departments;

update departments set

mgr_start_date="10-10-10"

where

Dnumber=3;

SELECT * FROM departments;

Result Grid | Filter Rows:

Dname	Dnumber	Mgr_ssn	mgr_start_date
R&D	1	537	10-10-16
Tax	2	963	08-11-17
Finance	3	277	01-11-03

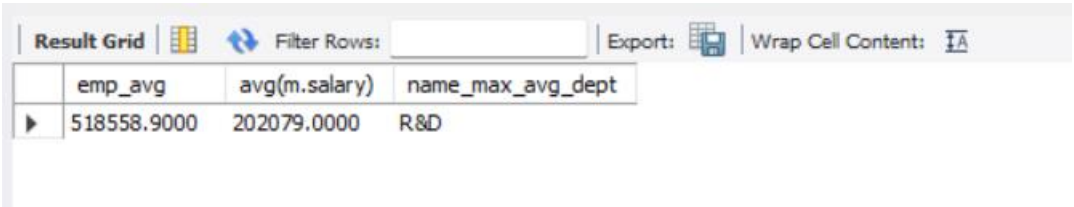
Result Grid | Filter Rows:

Dname	Dnumber	Mgr_ssn	Mgr_start_date
R&D	1	537	10-10-16
Tax	2	963	08-11-17
Finance	3	277	10-10-10

Kandula Lohith
AP20110010161
CSE-C

B)Create a materialized view for finding average salary of employees, average salary of managers, average salary for each department and department(s) which spend more money on salary for the employees.

```
create view deptavg_salary as select D.Dname,

(avg(salary)) as dept_avg from EMPLOYEE E,

DEPARTMENT D Where E.Dno = D.Dnumber group by

Dname

ORDER BY avg(E.salary) desc limit

1;


SELECT * FROM deptavg_salary;

create view avg_salary

as select avg(e.salary) as emp_avg, avg(m.salary) , d.Dname as

name_max_avg_dept from EMPLOYEE e,manager_info m,deptavg_salary d;

SELECT * FROM avg_salary;
```



C)Assume that Dno of EMPLOYEE relation has got NOT NULL constraint.Write a transaction which inserts tuples in to the relations EMPLOYEE and DEPARTMENT without affecting integrity constraints specified in the schema.

```
BEGIN;

INSERT INTO `EMPLOYEE` VALUES ("Manisha"," ","Velaga","999","05-

11-03","204-wallstreet","M","60000","6789","4");
```

Kandula Lohith
AP20110010161
CSE-C

COMMIT; select * from

EMPLOYEE;

BEGIN;

INSERT INTO `DEPARTMENT` VALUES ("Public relations","4","999","0508-22");

COMMIT;

SELECT * FROM DEPARTMENT;

Lohith	R	K		999	05-11-03	204-wallstreet		M	000	6789	4

Result Grid | Filter Rows: | Ed

	Dname	Dnumber	Mgr_ssn	mgr_start_date
▶	R&D	1	537	10-10-16
	Tax	2	963	08-11-17
	Finance	3	277	10-10-10
	Public relations	4	999	0508-22

Kandula Lohith
AP20110010161
CSE-C