LAB RECORD PROGRAM 6 TO 10

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PROGRAM 6: ORDER PROCESSING DATABASE

SQL:

```
create
database
orderdb;
            use orderdb;

            create table salesman (
                   salesman_id int(4),
                   name varchar (20),
                   city varchar (20),
                   commission varchar (20),
                   primary key (salesman_id)
            );
            desc salesman;
            create table customer1 (
                   customer_id int(4),
                   cust_name varchar (20),
                   city varchar (20),
                   grade int (3),
                salesman_id int(4),
                   primary key (customer_id),
                   foreign key (salesman_id) references salesman(salesman_id) on delete
            set null
            );
            desc customer1;
            create table orders (
                   ord_no int (5),
                   purchase_amt int (10),
                   ord_date date,
                customer_id int(4),
                   salesman_id int(4),
                   primary key (ord_no),
                   foreign key (customer_id) references customer1 (customer_id) on
            delete cascade,
                   foreign key (salesman_id) references salesman (salesman_id) on delete
            cascade
```

```
);
desc orders;
insert into salesman values (1000, 'john','bangalore','25 %');
insert into salesman values (2000, 'ravi','bangalore','20 %');
insert into salesman values (3000, 'kumar','mysore','15 %');
insert into salesman values (4000, 'smith','delhi','30 %');
insert into salesman values (5000, 'harsha','hydrabad','15 %');
select * from salesman;
insert into customer1 values (10, 'preethi','bangalore', 100, 1000);
insert into customer1 values (11,'vivek','mangalore', 300, 1000);
insert into customer1 values (12, 'bhaskar','chennai', 400, 2000);
insert into customer1 values (13, 'chethan','bangalore', 200, 2000);
insert into customer1 values (14, 'mamatha','bangalore', 400, 3000);
select * from customer1;
insert into orders values (50, 5000, '04-06-17', 10, 1000);
insert into orders values (51, 450, '20-01-17', 10, 2000);
insert into orders values (52, 1000, '24-02-17', 13, 2000);
insert into orders values (53, 3500, '13-04-17', 14, 3000);
insert into orders values (54, 550, '09-03-17', 12, 2000);
select * from orders;

-- Query 1

select grade, count(distinct customer_id)
from customer1
group by grade
having grade > (select avg(grade)
from customer1
where city='bangalore'
);

-- Query 2

select salesman_id, name
from salesman a
where 1 < (select count(*)
from customer1
where salesman_id=a.salesman_id
);

-- Query 3

select salesman.salesman_id, name, cust_name, commission
from salesman, customer1
where salesman.city = customer1.city
union
```

```
select salesman_id, name, 'no match', commission
from salesman
where not city = any
(select city
from customer1)
order by 2 desc;

-- Query 4

create view highsalesman as
select b.ord_date, a.salesman_id, a.name
from salesman a, orders b
where a.salesman_id = b.salesman_id
and b.purchase_amt=(select max(purchase_amt)
from orders c
where c.ord_date = b.ord_date
);
select * from highsalesman;

-- Query 5

delete from salesman
where salesman_id=1000;

select * from salesman;
select * from orders;
```

OUTPUTS:

QUERY 1

#	grade	count(distinct customer_
1	300	1
2	400	2

:

QUERY 2

#	salesman_id	name
1	1000	john
2	2000	ravi
*	NULL	NULL

QUERY 3:

#	salesman_id	name	cust_name	commissio
1	4000	smith	no match	30 %
2	2000	ravi	preethi	20 %
3	2000	ravi	chethan	20 %
4	2000	ravi	mamatha	20 %
5	3000	kumar	no match	15 %
6	1000	john	preethi	25 %
7	1000	john	chethan	25 %
8	1000	john	mamatha	25 %
9	5000	harsha	no match	15 %

QUERY 4:

#	ord_date	salesman_id	name
1	2004-06-17	1000	john
2	2020-01-17	2000	ravi
3	2024-02-17	2000	ravi
4	2013-04-17	3000	kumar
5	2009-03-17	2000	ravi

QUERY 5

#	ord_no	purchase_amt	ord_date	customer_id	salesman_id
1	51	450	2020-01-17	10	2000
2	52	1000	2024-02-17	13	2000
3	53	3500	2013-04-17	14	3000
4	54	550	2009-03-17	12	2000
*	NULL	NULL	NULL	NULL	NULL

#	salesman_id	name	city	commissio
1	2000	ravi	bangalore	20 %
2	3000	kumar	mysore	15 %
3	4000	smith	delhi	30 %
4	5000	harsha	hydrabad	15 %
*	NULL	NULL	NULL	NULL

PROGRAM 7: BOOK DEALER DATABASE

SQL:

```
Create
database
book_db;
            use book_db;

            CREATE TABLE Publisher
                   (name VARCHAR(20) PRIMARY KEY,
                   phone real,
                   address VARCHAR(20));

            CREATE TABLE Book
                   (book_id int PRIMARY KEY,
                   title VARCHAR(20),
                   pub_year VARCHAR(20),
                   publisher_name varchar(20) REFERENCES Publisher (name) ON DELETE
            CASCADE);

            CREATE TABLE Book_Authors
                   (author_name VARCHAR(20),
                   book_id int REFERENCES Book (book_id) ON DELETE CASCADE,
                   PRIMARY KEY (book_id, author_name));

            CREATE TABLE Library_Branch
                   (branch_id int PRIMARY KEY,
                   branch_name VARCHAR(50),
                   address VARCHAR(50));

            CREATE TABLE Book_Copies
                   (no_of_copies int,
                   book_id int REFERENCES Book(book_id) ON DELETE CASCADE,
                   branch_id int REFERENCES Library_Branch (branch_id) ON DELETE
            CASCADE,
                   PRIMARY KEY (book_id, branch_id));

            CREATE TABLE Card
                   (card_no int PRIMARY KEY);
            CREATE TABLE Book_Lending
                   (date_out DATE,
                   due_date DATE,
                   book_id int REFERENCES book (book_id) ON DELETE CASCADE,
                   branch_id int REFERENCES Library_Branch (branch_id) ON DELETE
            CASCADE,
```

```
        card_no int REFERENCES Card (card_no) ON DELETE CASCADE,
        PRIMARY KEY (book_id, branch_id, card_no));

INSERT INTO Publisher VALUES
        ("MCGRAW-HILL", 9989076587, "BANGALORE"),
    ("PEARSON",9889076565,"NEWDELHI"),
    ("RANDOM HOUSE",7455679345,"HYDRABAD"),
    ("HACHETTE LIVRE",8970862340,"CHENNAI"),
    ("GRUPO PLANETA",7756120238,"BANGALORE");

INSERT INTO Book VALUES
        (1,"DBMS","JAN-2017","MCGRAW-HILL"),
    (2,"ADBMS","JUN-2016","MCGRAW-HILL"),
    (3,"CN","SEP-2016","PEARSON"),
    (4,"CG","SEP-2015","GRUPO PLANETA"),
    (5,"OS","MAY-2016","PEARSON");

INSERT INTO Book_Authors VALUES
        ("NAVATHE", 1),
    ("NAVATHE", 2),
    ("TANENBAUM", 3),
    ("EDWARD ANGEL", 4),
    ("GALVIN", 5);

INSERT INTO Library_Branch VALUES
        (10,"RR NAGAR","BANGALORE"),
    (11,"RNSIT","BANGALORE"),
    (12,"RAJAJI NAGAR","BANGALORE"),
    (13,"NITTE","MANGALORE"),
    (14,"MANIPAL","UDUPI");

INSERT INTO Book_Copies VALUES
        (10, 1, 10),
    (5, 1, 11),
    (2, 2, 12),
    (5, 2, 13),
    (7, 3, 14),
    (1, 5, 10),
    (3, 4, 11);

INSERT INTO Card VALUES
        (100),
    (101),
    (102),
    (103),
    (104);
```

```
INSERT INTO Book_Lending VALUES
       ("2017-01-01","2017-06-01", 1, 10, 101),
    ("2017-01-11","2017-03-11", 3, 14, 101),
    ("2017-02-21","2017-04-21", 2, 13, 101),
    ("2017-03-17","2017-07-15", 4, 11, 101),
    ("2017-04-12","2017-05-12", 1, 11, 104);
```

OUTPUTS:

QUERRY 1

branch_id	book_id	title	name	author_name	no_of_copies
10	1	DBMS	MCGRAW-HILL	NAVATHE	10
11	1	DBMS	MCGRAW-HILL	NAVATHE	5
12	2	ADBMS	MCGRAW-HILL	NAVATHE	2
13	2	ADBMS	MCGRAW-HILL	NAVATHE	5
14	3	CN	PEARSON	TANENBAUM	7
11	4	CG	GRUPO PLANETA	EDWARD ANGEL	3
10	5	OS	PEARSON	GALVIN	1

QUERY 2

	card_no
▶	101

QUERY 3

book_id	title	pub_year	publisher_name
2	ADBMS	JUN-2016	MCGRAW-HILL
3	CN	SEP-2016	PEARSON
4	CG	SEP-2015	GRUPO PLANETA
5	OS	MAY-2016	PEARSON

QUERY 4

pub_year	publisher_name	title
JUN-2016	MCGRAW-HILL	ADBMS
SEP-2016	PEARSON	CN
SEP-2015	GRUPO PLANETA	CG
MAY-2016	PEARSON	OS

QUERY 5

title	no_of_copies	branch_name
ADBMS	2	RAJAJI NAGAR
ADBMS	5	NITTE
CN	7	MANIPAL
CG	3	RNSIT
OS	1	RR NAGAR

PROGRAM 8: STUDENT ENROLLMENT DATABASE

SQL:

```
create
database
textcourse;
              use textcourse;

              create table student(
                   regno varchar(15),
                   name varchar(20),
                   major varchar(20),
                   bdate date,
                   primary key (regno)
```

```
     );
desc student;
create table course(
     courseno int,
     cname varchar(20),
     dept varchar(20),
     primary key (courseno)
     );
desc course;
create table enroll(
     regno varchar(15),
     courseno int,
     sem int(3),
     marks int(4),
     primary key (regno,courseno),
     foreign key (regno) references student (regno),
     foreign key (courseno) references course (courseno)
     );
desc enroll;
create table text(
     book_isbn int(5),
     book_title varchar(20),
     publisher varchar(20),
     author varchar(20),
     primary key (book_isbn)
     );
desc text;

create table book_adoption(
     courseno int,
     sem int(3),
     book_isbn int(5),
     primary key (courseno,book_isbn),
     foreign key (courseno) references course (courseno),
     foreign key (book_isbn) references text(book_isbn)
     );
desc book_adoption;
insert into student (regno,name,major,bdate) values
     ('1pe11cs002','b','sr','19930924'),
     ('1pe11cs003','c','sr','19931127'),
     ('1pe11cs004','d','sr','19930413'),
     ('1pe11cs005','e','jr','19940824');
select * from student;

insert into course values (111,'os','cse'),
     (112,'ec','cse'),
```

```
     (113,'ss','ise'),
     (114,'dbms','cse'),
     (115,'signals','ece');
select * from course;
insert into text values (book_isbn,book_title,publisher,author),
     (10,'database systems','pearson','schield'),
     (900,'operating sys','pearson','leland'),
     (901,'circuits','hall india','bob'),
     (902,'system software','peterson','jacob'),
     (903,'scheduling','pearson','patil'),
     (904,'database systems','pearson','jacob'),
     (905,'database manager','pearson','bob'),
     (906,'signals','hall india','sumit');
select * from text;

insert into enroll (regno,courseno,sem,marks) values
     ('1pe11cs002',114,5,100),
     ('1pe11cs003',113,5,100),
     ('1pe11cs004',111,5,100),
     ('1pe11cs005',112,3,100);
select * from enroll;

insert into book_adoption (courseno,sem,book_isbn) values
(111,5,900),
(111,5,903),
(111,5,904),
(112,3,901),
(113,3,10),
(114,5,905),
(113,5,902),
(115,3,906);

select * from book_adoption;

-- Query 3

insert into text values (907,'ai','hall india','sumit');
insert into book_adoption values(115, 2, 907);

select * from text;
select * from book_adoption;

-- Query 4
select b.book_isbn, b.courseno, t.book_title from book_adoption b, text t
where t.book_isbn = b.book_isbn and b.courseno in(
```

```
select courseno from course where dept = 'cse' and courseno in (select
courseno from book_adoption group by courseno having count(*)>2));

-- query 5

select distinct c.dept
     from course c
     where c.dept in
     ( select c.dept
     from course c,book_adoption b,text t
     where c.courseno=b.courseno
     and t.book_isbn=b.book_isbn
     and t.publisher='hall india')
     and c.dept not in
     (select c.dept
     from course c,book_adoption b,text t
     where c.courseno=b.courseno
     and t.book_isbn=b.book_isbn
     and t.publisher != 'hall india');
```

OUTPUTS

#	courseno	sem	book_isbn
1	111	5	900
2	111	5	903
3	111	5	904
4	112	3	901
5	113	3	10
6	113	5	902
7	114	5	905
8	115	3	906
*	NULL	NULL	NULL

#	regno	name	major	bdate
1	1pe11cs002	b	sr	1993-09-24
2	1pe11cs003	c	sr	1993-11-27
3	1pe11cs004	d	sr	1993-04-13
4	1pe11cs005	e	jr	1994-08-24
*	NULL	NULL	NULL	NULL

QUERY 3

#	courseno	sem	book_isbn
1	111	5	900
2	111	5	903
3	111	5	904
4	112	3	901
5	113	3	10
6	113	5	902
7	114	5	905
8	115	3	906
9	115	2	907
*	NULL	NULL	NULL

#	book_isbn	book_title	publisher	author
1	0	NULL	NULL	NULL
2	10	database systems	pearson	schield
3	900	operating sys	pearson	leland
4	901	circuits	hall india	bob
5	902	system software	peterson	jacob
6	903	scheduling	pearson	patil
7	904	database systems	pearson	jacob
8	905	database manager	pearson	bob
9	906	signals	hall india	sumit
10	907	ai	hall india	sumit
*	NULL	NULL	NULL	NULL

QUERY 4

#	book_isbn	courseno	book_title
1	900	111	operating sys
2	903	111	scheduling
3	904	111	database systems

QUERY 5

#	dept
1	ece

PROGRAM 9: MOVIE DATABASE

DIRECTOR'S TABLE

DIR_ID	DIR_NAME	DIR_PHONE
60	RAJAMOULI	8751611001
61	HITCHCOCK	7766138911
62	FARAN	9986776531
63	STEVEN SPIELBERG	8989776530
NULL	NULL	NULL

ACTOR'S TABLE

	ACT_ID	ACT_NAME	ACT_GENDER
▶	301	ANUSHKA	F
	302	PRABHAS	M
	303	PUNITH	M
	304	JERMY	M
*	NULL	NULL	NULL

RATING TABLE

	MOV_ID	REV_STARS
▶	1001	4
	1002	2
	1003	5
	1004	5
*	NULL	NULL

QUERY 1

	MOV_TITLE
▶	AKASH

QUERY 2

	MOV_TITLE
▶	BAHUBALI-1

QUERY 3

	ACT_NAME	MOV_TITLE	MOV_YEAR
▶	ANUSHKA	BAHUBALI-2	2017

QUERY 4

MOV_TITLE ▲ 1	MAX(REV_STARS)
AKASH	5
BAHUBALI-1	2
BAHUBALI-2	4
WAR HORSE	4

QUERY 5

MOV_TITLE	MAX(REV_STARS)
AKASH	5
BAHUBALI-1	2
BAHUBALI-2	4
WAR HORSE	4

PROGRAM 10: COLLEGE DATABASE

CLASS TABLE

USN	SSID
1033	5
1011	4
1055	2
1022	4
1044	4

MARKS TABLE

USN	SUBCODE	SSID	TEST1	TEST2	TEST3
1033	10	5	19	19	20
1055	30	2	19	19	19
1022	40	4	12	18	16
1044	10	4	10	12	11
1011	20	4	15	14	13

QUERY 1

USN	S_NAME	ADDRESS	PHONE	GENDER
1011	Shashi	Jayanagar	631742	FEMALE
1022	Ayush	Jayanagar	371292	MALE
1044	Dhruv	VV Puram	831215	MALE

QUERY 2

SEM	SEC	GENDER	COUNT(*)
6	B	MALE	1
4	C	FEMALE	1
4	C	MALE	2
4	B	FEMALE	1

QUERY 3

USN	SUB	MARKS
1022	ADA	12

QUERY 4

USN	SUBCODE	SSID	TEST1	TEST2	TEST3	FINAL_ALL
1033	10	5	19	19	20	19.5
1055	30	2	19	19	19	19
1022	40	4	12	18	16	17
1044	10	4	10	12	11	11.5
1011	20	4	15	14	13	14.5

QUERY 5

USN	SUBCODE	SSID	TEST1	TEST2	TEST3	FINAL_ALL	CATEGORY
1033	10	5	19	19	20	19.5	OUTSTANDING
1055	30	2	19	19	19	19	OUTSTANDING
1022	40	4	12	18	16	17	OUTSTANDING
1044	10	4	10	12	11	11.5	WEAK
1011	20	4	15	14	13	14.5	AVERAGE

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