

1)

```
create database pl;  
use pl;
```

```
create table customer(cno int primary key, cname text, city text, agent_name text);  
insert into customer values(101, "Rahul", "Mumbai", "Agent1");  
insert into customer values(102, "Ritesh", "Delhi", "Agent2");  
insert into customer values(103, "Jack", "Pune", "Agent3");  
insert into customer values(104, "Chutki", "Kolhapur", "Agent4");  
insert into customer values(105, "Amit", "Nanded", "Agent5");
```

```
create table policy(pno int primary key, pname varchar(20), premium_amt int, policy_type  
enum("Yearly", "Half-Yearly", "Monthly"), cno int references customer(cno));  
insert into policy values(1, "Max Life", 1500, "Yearly", 101);  
insert into policy values(2, "Star Health", 1400, "Half-Yearly", 102);  
insert into policy values(3, "Royal Sundaram", 1200, "Monthly", 103);  
insert into policy values(4, "Jeevan Anand", 1450, "Monthly", 104);  
insert into policy values(5, "LIC", 1600, "Yearly", 105);
```

```
select * from customer where city = "Kolhapur";
```

```
select avg(premium_amt) from policy;
```

```
select count(*) from customer, policy where customer.cno=policy.cno and pname = "Jeevan  
Anand";
```

```
SET SQL_SAFE_UPDATES = 0;  
update policy set premium_amt = premium_amt * 1.1 where policy_type = "Monthly";  
select * from policy;
```

```
delete from customer where city="Pune";  
select * from customer;
```

```
CREATE VIEW v3 AS  
SELECT cname FROM Customer c  
JOIN (  
    SELECT agent_name, COUNT(*) AS policy_count  
    FROM Customer  
    GROUP BY agent_name  
    ORDER BY policy_count DESC  
    LIMIT 1  
) cc ON c.agent_name = cc.agent_name;  
select * from v3;
```

2)

```
use pl;
```

```
create table area (ano int primary key, aname text, area_type enum("Rural", "Urban"));
```

```
insert into area values(101, "Pune", "Rural");
```

```
insert into area values(102, "Mumbai", "Urban");
```

```
insert into area values(103, "Delhi", "Rural");
```

```
insert into area values(104, "Kolkata", "Urban");
```

```
create table person(pnumber int primary key, pname text, birthdate date, income int,ano int  
references area(ano));
```

```
insert into person values(1, "Amit", '2004-04-14', 15000,101);
```

```
insert into person values(2, "Chutki", '2004-06-07', 16000,102);
```

```
insert into person values(3, "Rahul", '2008-10-11', 9000,103);
```

```
insert into person values(4, "Harsh", '2006-05-20', 25000,104);
```

```
select * from person where income > 10000;
```

```
UPDATE area,person SET aname = 'Delhi' WHERE area.ano=person.ano and aname="Pune";
```

```
select * from area;
```

```
select count(*) from area where area_type="Urban";
```

```
select count(*) from person where birthdate = '2004-06-07';
```

```
delete from person where income between 20000 and 30000;
```

```
select * from person;
```

```
create view v1 as select income from person where income > 20000;
```

```
select * from v1;
```

3)

```
use pl;
create table dept(dno int primary key, dname text, dloc text);
insert into dept values(1, "Science", "Pune");
insert into dept values(2, "IT", "Mumbai");
insert into dept values(3, "DS", "Delhi");
insert into dept values(4, "RDBMS", "Akurdi");
insert into dept values(30, "OOPs", "Nigdi");

create table emp(eno int primary key, ename text, designation varchar(20), sal int, dno int
references dept(dno));
insert into emp values(101, "Amit", "Manager", 20000, 1);
insert into emp values(102, "Rahul", "Service Manager", 15000, 2);
insert into emp values(103, "Chutki", "Manager", 25000, 3);
insert into emp values(104, "Ajay", "Developer", 18000, 30);
insert into emp values(105, "Atul", "Developer", 14000, 30);

update emp set sal = sal*1.15 where designation = "Manager";
select * from emp;

delete from emp where dno = 30;
select * from emp;

select count(*) from emp where dno = 3;

select avg(sal) from emp;

select ename from emp order by ename asc;

create view v21 as select
emp.eno,emp.ename,emp.designation,emp.sal,dept.dno,dept.dname,dept.dloc from emp,dept
where emp.dno = dept.dno;
select * from v21;
```

4)

```
create database lab;
use lab;
create table Customer(cust_no int primary key, cust_name varchar(20), cust_city varchar(20));
insert into Customer values(101,"Atharva", "Mumbai");
insert into Customer values(102,"Kishor", "Pune");
insert into Customer values(103,"Ram", "Indor");
insert into Customer values(104,"Sham", "Delhi");
insert into Customer values(105,"Raghav", "Punjab");

create table Account(acct_no int primary key, acc_type enum('Saving','Current')not null, balance
int check(balance > 0), brach_name text, cust_no int references Customer(cust_no));
insert into Account values(23456, "Saving", 100 , "M.G Road" , 101);
insert into Account values(54321, "Current", 10000 , "G.M Road" , 102);
insert into Account values(78902, "Saving", 900 , "K.P Nagar" , 103);
insert into Account values(03851, "Current", 15000 , "Karve Nagar" , 104);
insert into Account values(76540, "Saving", 30000 , "G.M Road" , 105);

Select * from Account where balance > 10000 and acc_type= "Saving";

Select count(*) from Customer where cust_city = "Mumbai";

Select sum(balance) from Account where brach_name = "M.G Road";

set sql_safe_updates = 0;
Delete from Customer where cust_name = "Raghav";
select * from customer;

update Customer set cust_city= "Gujrat" where cust_name= "Kishor";
Select * from Customer;

create view v4 as select
Account.acct_no,Account.acc_type,Account.balance,Account.brach_name,Customer.cust_no,Cu
stomer.cust_name from Account,Customer where Account.cust_no = Customer.cust_no;
select * from v4;
```

5)

```
use lb;

create table item(item_no int primary key, iname text, quantity int);
insert into item values(1, "Books", 50);
insert into item values(2, "Mouse", 60);
insert into item values(3, "Keyboard", 40);
insert into item values(4, "Pen", 35);
insert into item values(5, "Pencit", 45);

create table supplier(s_no int primary key, sanme text, city text);
insert into supplier values(101, "Amit", "Pune");
insert into supplier values(102, "Ajay", "Mumbai");
insert into supplier values(103, "Manoj", "Delhi");
insert into supplier values(104, "Chutki", "Nanded");
insert into supplier values(105, "Jack", "Kolkata");

create table item_supplier(item_supplier int primary key, item_no int references item(item_no),
s_no int references supplier(s_no), rate int);
insert into item_supplier values(1001, 1, 101, 2000);
insert into item_supplier values(1002, 2, 102, 3000);
insert into item_supplier values(1003, 3, 103, 4000);
insert into item_supplier values(1004, 4, 104, 5000);
insert into item_supplier values(1005, 5, 105, 6000);

update item set quantity = 80 where iname = "Mouse";
select * from item;

select * from supplier where sanme like 'M%';

select count(*) from item;

select sanme from supplier where city!="Pune";

select city,sanme from supplier group by city,sanme;

create view v51 as select supplier.sanme, item.iname, rate from supplier,item, item_supplier
where supplier.s_no = item_supplier.s_no and item.item_no = item_supplier.item_no ;
select * from v51;
```

6)

use lab;

```
create table Area(a_no int primary key, aname varchar(20), area_type enum('Urban','Rural'));
insert into Area values(1, "Mumbai", "Urban");
insert into Area values(2, "Mumbai", "Rural");
insert into Area values(3, "Pune", "Urban");
insert into Area values(4, "Nigdi", "Rural");
insert into Area values(5, "Ravet", "Urban");
```

```
create table Person(pnumber int primary key, pname text, birthdate date, income int, a_no int
references Area(a_no));
insert into Person values(101, "Mr.kumar", "1999-03-12", 15000, 1);
insert into Person values(102, "Mr.Raj", "1987-01-02", 25000, 2);
insert into Person values(103, "Ram", "2001-10-05", 35000, 3);
insert into Person values(104, "Shyam", "1979-11-21", 17000, 4);
insert into Person values(105, "Chutki", "2002-07-17", 12000, 5);
```

```
Delete from Person where pname= "Mr.kumar";
Select * from Person;
```

```
Select count(*) from Area where aname= "Pune";
```

```
Update Area set aname="Pune" where aname= "Mumbai";
select * from Area;
```

```
Select pname, income from Person;
```

```
Select avg(income) from Area,Person where aname = "Pune";
```

```
create view v5 as select pnumber,pname, birthdate, income from Person,Area where Area.a_no
= Person.a_no and area_type = "Urban";
select * from v5;
```

7)

```
create database lb;
use lb;
create table dept(dno int primary key, dname text, loc text);
insert into dept values(1, "IT", "Pune");
insert into dept values(2, "DS", "Pune");
insert into dept values(3, "RDBMS", "Mumbai");
insert into dept values(4, "DT", "Pimpri");
insert into dept values(5, "OOps", "Delhi");

create table emp(eno int primary key, ename text not null, designation text, salary int
check(salary>0), dateOfJoining date, dno int references dept(dno));
insert into emp values(101, "Amit", "Manager",20000, '2022-08-15', 1);
insert into emp values(102, "Chutki", "Manager",25000, '2023-07-18', 2);
insert into emp values(103, "Ajay", "Service Manager",15000, '2020-12-05', 4);
insert into emp values(104, "Rahul", "Analyst",18000, '2021-04-16', 3);
insert into emp values(105, "Nachiket", "Manager",40000, '2024-04-16', 3);

select ename from emp,dept where dept.loc = "Pimpri" and emp.dateOfJoining = '2020-12-05';

select * from emp where salary between 20000 and 50000;

select dname,count(*) as num_employees from dept,emp where dept.dno=emp.dno group by
dname;

delete from emp where designation ="Analyst";
select * from emp;

select dept.dname,emp.ename from dept,emp where dept.dno=emp.dno;

create view v7 as select ename from emp where designation = "Manager";
select * from v7;
```

8)

```
use lb;
create table clinic (cno int primary key, cname text, address text, city text, Est_year int
check(Est_year>2000));
insert into clinic values(1, "Sai", "Baner", "Pune",2012);
insert into clinic values(2, "Jupyter", "Akurdi", "Mumbai",2014);
insert into clinic values(3, "Global", "Nigdi", "Delhi",2010);
insert into clinic values(4, "Apolo", "Kalewadi", "Pune",2016);
insert into clinic values(5, "JJ", "Ravet", "Kolkata",2011);

create table doctor(dno int primary key, dname text, dcity text, Speciality text, cno int
references clinic(cno));
insert into doctor values(101, "Vishal", "Delhi", "Surgery",1);
insert into doctor values(102, "Mayur", "Mumbai", "Pediatrics",2);
insert into doctor values(103, "Chutki", "Pune", "Cardiology",3);
insert into doctor values(104, "Amit", "Pune", "Neurology",4);

select Speciality from doctor,clinic where clinic.cno = doctor.cno and cname ="Sai";

select * from clinic where Est_year = 2010;

select clinic.cname,count(*) as num_doctors from clinic left join doctor on clinic.cno=doctor.cno
group by clinic.cname;

update doctor set dcity = "Calcutta" where dname = "Vishal";
select * from doctor;

delete from clinic where address = "Nigdi";
select * from clinic;

create view v8 as select dname from doctor,clinic where clinic.cno = doctor.cno and address =
"Kalewadi";
select * from v8;
```



9)

use lb;

```
create table driver(id1 int primary key, name text not null, license_no int, address text);
insert into driver values(1, "Amit", 124553, "Pune");
insert into driver values(2, "Ajay", 4865435, "Pimpri");
insert into driver values(3, "Chutki", 442121, "Nigdi");
insert into driver values(4, "Jack", 456862, "Delhi");
insert into driver values(5, "Harsh", 45485453, "Mumbai");
```

```
create table car(id2 int primary key, model text, color text, year1 int);
insert into car values(101, "BMW", "Red", 2008);
insert into car values(102, "Tesla", "Blue", 2012);
insert into car values(103, "Tata", "Silver", 2016);
insert into car values(104, "Alto", "Yellow", 2020);
insert into car values(105, "vxi", "White", 2022);
```

```
create table driver_car(id1 int references driver(id1),id2 int references car(id2),date date);
insert into driver_car values(1,101,'2022-05-14');
insert into driver_car values(2,102,'2024-04-18');
insert into driver_car values(3,103,'2021-03-11');
insert into driver_car values(4,104,'2004-06-07');
insert into driver_car values(5,105,'2005-07-18');
```

```
select * from car where year1 < 2009;
```

```
select name from driver,car,driver_car where driver.id1 = driver_car.id1 and car.id2 =
driver_car.id2 and color = "Blue";
```

```
select * from driver where address = "Pimpri";
```

```
delete from car where model = "Alto";
select * from car;
```

```
update car set color = "Black" where model = "vxi";
select * from car;
```

```
create view v91 as select driver.id1,driver.name,driver.license_no, driver.address from
driver,car,driver_car where driver.id1 = driver_car.id1 and car.id2 = driver_car.id2 and year1 =
2012;
select * from v91;
```

10)

```
use lb;
create table emp1(eid int primary key, ename text, salary int, qualification varchar(20),
joining_date date);
insert into emp1 values(1, "Ajay", 15000, "Btech", '2022-05-18');
insert into emp1 values(2, "Chutki", 20000, "MCA", '2021-04-06');
insert into emp1 values(3, "Dinesh", 18000, "BCA", '2020-08-04');
insert into emp1 values(4, "Kunal", 17000, "BCA", '2019-05-17');
insert into emp1 values(5, "Jack", 19000, "Btech", '2023-09-18');

create table project (pno int primary key, pname text, budget int, duration int);
insert into project values(101, "Matlab", 1000, 20);
insert into project values(102, "Python", 1500, 35);
insert into project values(103, "Robotics", 2000, 52);
insert into project values(104, "AI", 2500, 55);
insert into project values(105, "Robotics", 3000, 40);

create table emp_project(eid int references emp1(eid),pno int references
project(pno),no_of_hrs int);
insert into emp_project values(1,101,50);
insert into emp_project values(2,102,40);
insert into emp_project values(3,103,35);
insert into emp_project values(4,104,38);
insert into emp_project values(5,105,55);

select count(*) from project where duration >50;

select ename from emp1,project,emp_project where emp1.eid = emp_project.eid and
project.pno = emp_project.pno and pname = "Matlab";

select min(budget) from project;

update emp1 set salary = salary * 1.1;
select * from emp1;

select qualification from emp1;

create view v10 as select emp1.* from emp1,project,emp_project where emp1.eid =
emp_project.eid and project.pno = emp_project.pno and pname = "Robotics";
select * from v10;
```

11)

```
use lb;
create table client(client_no int primary key, name text, address text);
insert into client values(1,"Ajay", "Pune");
insert into client values(2,"Sunil", "Mumbai");
insert into client values(3,"Monika", "Delhi");
insert into client values(4,"Chutki", "Kolkata");
insert into client values(5,"Atul", "Pune");

create table sales_order(s_orderno int primary key, s_order_date date, order_amt int
check(order_amt>0), client_no int references client(client_no));
insert into sales_order values(101, '2021-02-17', 15000, 1);
insert into sales_order values(102, '2022-04-18', 20000, 2);
insert into sales_order values(103, '2023-08-25', 14000, 3);
insert into sales_order values(104, '2019-05-28', 16000, 5);
insert into sales_order values(105, '2020-04-26', 12000, 4);

select * from sales_order where order_amt = (select min(order_amt) from sales_order);

select name from client,sales_order where client.client_no = sales_order.client_no and
s_order_date = '2021-02-17';

select s_order_date from sales_order,client where client.client_no = sales_order.client_no and
name = "Sunil";

update sales_order,client set order_amt = 22000 where client.client_no = sales_order.client_no
and name = "Monika";
select * from sales_order;

create view v11 as select name from client order by name asc;
select * from v11;
```

12)

```
use lb;
create table room(room_no int primary key, type enum("AC", "Non-AC"), rate int);
insert into room values(101, "AC", 5000);
insert into room values(102, "Non-AC", 4500);
insert into room values(103, "Non-AC", 2200);
insert into room values(104, "Non-AC", 2500);
insert into room values(105, "Non-AC", 3600);

create table guest(gno int primary key, game text, no_of_days int, room_no int unique);
insert into guest values(1, "Abhishek", 3, 101);
insert into guest values(2, "Kishor", 2, 103);
insert into guest values(3, "Chutki", 1, 102);
insert into guest values(4, "Dinesh", 4, 104);
insert into guest values(5, "Girish", 2, 105);

select count(*) from room where type="Non-AC";

select * from room order by rate asc;

select max(rate) from room;

alter table guest add column Mobile_no varchar(10);
select * from guest;
update guest set Mobile_no = 4242245245 where gno = 1;
update guest set Mobile_no = 2154511552 where gno = 2;
update guest set Mobile_no = 1241214251 where gno = 3;
update guest set Mobile_no = 8678415452 where gno = 4;
update guest set Mobile_no = 3554114152 where gno = 5;

select room.room_no, room.type, room.rate, guest.game from room, guest where
room.room_no = guest.room_no

create view v12 as select game from guest;
select * from v12;
```

13)

use lb;

```
create table student(rollno int primary key,name varchar(100),address varchar(100),class
varchar(10));
```

```
insert into student values(101, 'Ajay', 'Pune', 'SY');
insert into student values(11, 'Chutki', 'Nigdi', 'TY');
insert into student values(103, 'Kunal', 'Mumbai', 'FY');
insert into student values(104, 'Jack', 'Delhi', 'SY');
insert into student values(105, 'Atul', 'Akurdi', 'MCA');
insert into student values(106, 'Abc', 'Pune', 'FY');
```

```
create table subject(scode int primary key, subject_name text);
insert into subject values(1, "Science");
insert into subject values(2, "IT");
insert into subject values(3, "DBMS");
insert into subject values(4, "DS");
insert into subject values(5, "DBMS");
```

```
create table student_subject(rollno int references student(rollno), scode int references
subject(scode), marks_scored int);
insert into student_subject values(101, 1, 85);
insert into student_subject values(102, 2, 80);
insert into student_subject values(105, 4, 75);
insert into student_subject values(104, 3, 90);
insert into student_subject values(106, 5, 85);
```

```
select subject_name from student, subject, student_subject where student.rollno =
student_subject.rollno and subject.scode = student_subject.scode and class = "SY";
```

```
select distinct subject_name FROM Subject;
```

```
select class, subject_name, name from student, subject,student_subject where student.rollno =
student_subject.rollno and subject.scode = student_subject.scode;
```

```
update student set address = "Akurdi" where address = "Nigdi" and rollno = 11;
select * from student;
```

```
update subject set subject_name='Artificial Intelligence' where scode in(select scode from
student_subject where rollno in(select rollno from student where class='MCA'));
select * from subject;
```

```
CREATE VIEW v13 AS SELECT COUNT(*) FROM student,subject,student_subject where  
student.rollno = student_subject.rollno and subject.scode = student_subject.scode and class =  
"FY" and subject_name = "DBMS";  
select * from v13;
```

14)

```
use lab;
create table Route(Route_no int primary key, source text, destination text, no_of_stations int);
insert into Route values(1, "Airpot", "Nanded", 7);
insert into Route values(2, "Station", "Parbhani", 19);
insert into Route values(3, "Airpot", "Pune", 11);
insert into Route values(4, "Hyderabad", "Bangalore", 23);
insert into Route values(5, "Station", "Delhi", 47);
```

```
create table Bus(Bus_no int primary key, capacity int not null, depot_name text, Route_no int
references Route (Route_no));
insert into Bus values(101, 45, "Depot1", 1);
insert into Bus values(102, 55, "Depot2", 2);
insert into Bus values(103, 30, "Depot3", 3);
insert into Bus values(104, 40, "Deptop4", 4);
insert into Bus values(105, 25, "Depot5", 5);
```

```
Select * from Bus where depot_name= "Depot1";
```

```
Delete from Bus where Bus_no= 101;
```

```
Select * from Bus;
```

```
Select * from Route where no_of_stations > 10;
```

```
Select * from Route where source= "Station";
```

```
Select capacity from Bus;
```

```
Create view v142 as select Bus.Bus_no,Bus.capacity, Bus.Depot_name, Route.* from Bus,Route
where Route.Route_no=Bus.Route_no and Source="Airpot";
Select * from v142;
```

15)

use lb;

```
create table owner(oid int primary key, oname text, addr text, phone varchar(10));
```

```
insert into owner values(1, "Atul", "nigdi", 4156468244);
```

```
insert into owner values(2, "Chutki", "Ravet", 4645853451);
```

```
insert into owner values(3, "Mr.Patil", "Akurdi", 1148652354);
```

```
insert into owner values(4, "Mr.Patil", "Chinchwad", 1554564532);
```

```
insert into owner values(5, "Dinesh", "Chinchwad", 5686545222);
```

```
create table property (pno int primary key, desc1 text, area text, rate int check (rate>0), oid int references owner(oid));
```

```
insert into property values(101, "Plot 1", "Nanded", 10000, 1);
```

```
insert into property values(102, "Plot 2", "Baner", 20000, 2);
```

```
insert into property values(103, "Plot 3", "Punawale", 15000, 3);
```

```
insert into property values(104, "Plot 4", "Chinchwad area", 30000, 4);
```

```
insert into property values(105, "Plot 5", "Chinchwad area", 35000, 5);
```

```
select * from property order by area;
```

```
select property.* from property,owner where property.oid = owner.oid and oname = "Mr.Patil"
order by rate asc;
```

```
SELECT * FROM property WHERE area = 'Chinchwad area' AND rate = (SELECT MAX(rate) FROM
property WHERE area = 'Chinchwad area');
```

```
select oname, property.* from owner,property where property.oid = owner.oid;
```

```
SELECT oname
```

```
FROM Owner
```

```
JOIN Property ON Owner.oid = Property.oid
```

```
GROUP BY oname
```

```
ORDER BY MAX(rate) DESC
```

```
LIMIT 1;
```

```
create view v15 as select owner.oname from owner where addr = "nigdi";
```

```
select * from v15;
```