SQL Code

```sql
1   create database mydb;
2   use mydb
3
4   create table emp(
5   empid INT primary key,
6   name varchar(50),
7   dept varchar(50),
8   salary decimal(10,2),
9   hire_date date
10  )
11
12  insert into emp (empid,name,dept,salary,hire_date) values
    (1,'John','IT',2000000,'12/12/2020')
13  insert into emp values (2,'Thor','Sales',10000000,'11/01/2024')
14  insert into emp values (3,'Alex','IT',877777,'10/01/2021')
15  insert into emp values (4,'Elena','IT',100000,'05/11/2020')
16  insert into emp values (5,'sarah','Sales',300000,'05/02/2024')
17
18  select * from emp
19
20  select CURRENT_TIMESTAMP
21  select upper(name) from emp
22  select count(*) from emp
23  select avg(salary) from emp
24  select sum(salary) from emp
25  select len(name) from emp
26
27  drop table emp
28
29  create table emp(
30  empid INT primary key,
31  deptid int,
32  name varchar(50),
33  dept varchar(50),
34  salary decimal(10,2),
35  hire_date date
36  )
37
38  insert into emp (empid,deptid,name,dept,salary,hire_date) values
    (1,101,'John','IT',2000000,'12/12/2020')
39  insert into emp values (2,102,'Thor','Sales',10000000,'11/01/2024')
40  insert into emp values (3,101,'Alex','IT',877777,'10/01/2021')
41  insert into emp values (4,101,'Elena','IT',100000,'05/11/2020')
42  insert into emp values (5,102,'sarah','Sales',300000,'05/02/2024')
43
44  create table dept(
45  deptid int Primary Key,
46  deptname varchar(50),
47  empid int)
48
```

```sql
49   insert into dept values (101,'IT',3)
50   insert into dept values (102,'Sales',5)
51   insert into dept values (103,'Techops',6)
52   insert into dept values (102,'IT',4)
53
54   select e.name,e.dept from emp e join dept d on e.empid =d.empid
55
56   select dept,count(*) from emp group by dept
57
58   select round(avg(salary),2) from emp
59   select max(salary),min(salary) from emp
60
61   create view high_salary_emp as
62   select name,salary from emp where salary>800000
63
64   select * from high_salary_emp
65
66   select name ,salary from emp where salary >(select avg(salary) from emp)
67
68   select name,salary from emp where empid in (select empid from dept)
69
70
71   create table stud(
72   sid int primary key,
73   sname varchar(10),
74   smark int,
75   sgrade varchar(1),
76
77   )
78   insert into stud values (1,'Peter',90,'A'),(2,'Damon',60,'D'),(3,'Amy',79,'C'),
     (4,'Chris',80,'B'),(5,'Jeni',92,'A'),(6,'zack',85,'B')
79
80   select * from stud
81
82   select sname,smark,sgrade from stud where smark>=80
83
84   select sname ,sgrade from stud where sgrade='A'
85
86   select top 3 sname,smark from stud order by smark desc
87
88   create table emp1(
89   empid int primary key not null,
90   empname varchar(10) not null,
91   deptid int,
92   foreign key(deptid) references dept1(deptid)
93   )
94   alter table emp1 add salary int
95   update emp1 set salary=50000 where empid=1
96   update emp1 set salary=55000 where empid=2
97   update emp1 set salary=35000 where empid=3
98   update emp1 set salary=40000 where empid=4
99
100  insert into emp1 values (1,'jon',101),(2,'amy',101),(3,'zach',102)
101  insert into emp1 values (4,'jack',103)
```

```sql
102
103
104    create table dept1(
105    deptid int primary key,
106    deptname varchar(10) not null,
107    )
108    insert into dept1 values(101,'IT'),(102,'Sales')
109    insert into dept1 values(103,'Techops')
110    insert into dept1 values(104,'support')
111
112    create table proj(
113    projid int primary key,
114    projname varchar(10),
115    empid int ,
116    foreign key(empid) references emp1(empid)
117    )
118    insert into proj values(100,'ABC',1)
119    insert into proj values(102,'XYZ',3)
120    insert into proj values(101,'LMN',1)
121
122    select current_timestamp
123
124    select concat(empid,empname) from emp1
125
126    select e.empid,e.empname,d.deptid,d.deptname from emp1 e inner join dept1 d on
       e.deptid=d.deptid
127
128    select e.empid,e.empname,d.deptid,d.deptname from emp1 e right join dept1 d on
       e.deptid=d.deptid where e.empid is null
129
130
131    select e.empid,e.empname,count(p.projid) as totalprojects from emp1 e join proj p
       on e.empid=p.empid group by e.empid,e.empname having count(p.projid)>1
132
133    select d.deptname,count(*) as number_of_employees from emp1 e join dept d on
       e.deptid=d.deptid group by d.deptname
134
135    select d.deptid,d.deptname,avg(e.salary) as avgsalary from emp1 e join dept d on
       e.deptid=d.deptid group by d.deptid,d.deptname having  avg(salary)>40000
136
137    select empid,empname,salary from emp1 where salary > (select avg(salary) from
       emp1)
138
139    select d.deptid,d.deptname,sum(e.salary) as total_expense from emp1 e join dept d
       on e.deptid=d.deptid group by d.deptname,d.deptid
140
141    select e.empname,d.deptname from emp1 e join dept d on e.deptid=d.deptid where
       d.deptname in ('IT','Sales')
142
143    select empid ,empname from emp1 where exists(select empid from proj)
```