```sql
--CLASS ASSSIGNMENT 2
use db
create table dept (
    deptno int primary key,
    dname varchar(30),
    loc varchar(30)
);
create table emp (
    empno  int primary key,
    ename varchar(20) not null,
    job varchar(20),
    mgr_id int,
    hiredate date,
    sal int,
    comm int,
    deptno int,
    constraint fk_dept foreign key (deptno) references dept(deptno)
);
insert into dept (deptno, dname, loc)
values
    (10, 'ACCOUNTING', 'NEW YORK'),
    (20, 'RESEARCH', 'DALLAS'),
    (30, 'SALES', 'CHICAGO'),
    (40, 'OPERATIONS', 'BOSTON');
insert into emp (empno, ename, job, mgr_id, hiredate, sal, comm, deptno)
values
    (7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 800, null, 20),
    (7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30),
    (7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30),
    (7566, 'JONES', 'MANAGER', 7839, '1981-04-02', 2975, null, 20),
    (7654, 'MARTIN', 'SALESMAN', 7698, '1981-09-28', 1250, 1400, 30),
    (7698, 'BLAKE', 'MANAGER', 7839, '1981-05-01', 2850, null, 30),
    (7782, 'CLARK', 'MANAGER', 7839, '1981-06-09', 2450, null, 10),
    (7788, 'SCOTT', 'ANALYST', 7566, '1987-04-19', 3000, null, 20),
    (7839, 'KING', 'PRESIDENT', null, '1981-11-17', 5000, null, 10),
    (7844, 'TURNER', 'SALESMAN', 7698, '1981-09-08', 1500, 0, 30),
    (7876, 'ADAMS', 'CLERK', 7788, '1987-05-23', 1100, null, 20),
    (7900, 'JAMES', 'CLERK', 7698, '1981-12-03', 950, null, 30),
    (7902, 'FORD', 'ANALYST', 7566, '1981-12-03', 3000, null, 20),
    (7934, 'MILLER', 'CLERK', 7782, '1982-01-23', 1300, null, 10);
select*from emp;
select * from dept;
--1. List all employees whose name begins with 'A'.
select * from emp where ename like 'A%';
```

	empno	ename	job	mgr_id	hiredate	sal	comm	deptno
1	7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30
2	7876	ADAMS	CLERK	7788	1987-05-23	1100	NULL	20

```sql
--2. Select all those employees who don't have a manager.
select * from emp where mgr_id is null;
```

	empno	ename	job	mgr_id	hiredate	sal	comm	deptno
1	7839	KING	PRESIDENT	NULL	1981-11-17	5000	NULL	10

```
--3. List employee name, number and salary for those employees who earn in the range
  1200 to 1400.
select ename,empno,sal from emp where sal >=1200 and sal<=1400;
```

	ename	empno	sal
1	WARD	7521	1250
2	MARTIN	7654	1250
3	MILLER	7934	1300

```
--4.Give all the employees in the RESEARCH department a 10% pay rise. Verify that
  this has been done by listing all their details before and after the rise.
select e.empno, e.ename, e.job, e.sal as "current salary", e.sal * 1.10 as "new
  salary", d.dname as "department" from emp e join dept d on e.deptno = d.deptno
  where d.dname = 'research';
```

	empno	ename	job	current salary	new salary	department
1	7369	SMITH	CLERK	800	880.00	RESEARCH
2	7566	JONES	MANAGER	2975	3272.50	RESEARCH
3	7788	SCOTT	ANALYST	3000	3300.00	RESEARCH
4	7876	ADAMS	CLERK	1100	1210.00	RESEARCH
5	7902	FORD	ANALYST	3000	3300.00	RESEARCH

```
--5.Find the number of CLERKS employed. Give it a descriptive heading.
select count(*) as "Number of Clerks Employed" from emp where job = 'clerk';
```

	Number of Clerks Employed
1	4

```
--6. Find the average salary for each job type and the number of people employed in
   each job.
select avg(sal) as "avgsalary of clerk" from emp where job='clerk' ;
select avg(sal) as "avgsalary of salesman" from emp where job='salesman' ;
select avg(sal) as "avgsalary of manager" from emp where job='manager' ;
select avg(sal) as "avgsalary of analyst" from emp where job='analyst' ;
select avg(sal) as "avgsalary of president" from emp where job='president' ;
```

	avgsalary of clerk
1	1037

	avgsalary of salesman
1	1400

	avgsalary of manager
1	2758

	avgsalary of analyst
1	3000

	avgsalary of president
1	5000

```
--7. List the employees with the lowest and highest salary.
select ename from emp where sal=(select max(sal) from emp);
```

```
select ename from emp where sal=(select min(sal) from emp);
```

	ename
1	KING

	ename
1	SMITH

```
--8. List full details of departments that don't have any employees.
select * from dept where deptno not in (select distinct deptno from emp);
```

	deptno	dname	loc
1	40	OPERATIONS	BOSTON

```
--9. Get the names and salaries of all the analysts earning more than 1200 who are
  based in department 20. Sort the answer by ascending order of name.
select ename,sal from emp where job='analyst' and sal>1200 and deptno='20' order by
   ename asc;
```

	ename	sal
1	FORD	3000
2	SCOTT	3000

```
--10. For each department, list its name and number together with the total salary
  paid to employees in that department.
select d.dname,d.deptno,sum(e.sal) as "total salary paid" from dept d    join emp e
  on d.deptno=e.deptno group by d.dname,d.deptno;
```

	dname	deptno	total salary paid
1	ACCOUNTING	10	8750
2	RESEARCH	20	10875
3	SALES	30	9400

```
--11. Find out salary of both MILLER and SMITH.
select sal from emp where ename in ('miller','smith');
```

	sal
1	800
2	1300

```
--12. Find out the names of the employees whose name begin with ‘A’ or ‘M ’.
select ename from emp where ename like 'A%' or ename like 'M%';
```

	ename
1	ALLEN
2	MARTIN
3	ADAMS
4	MILLER

```
--13. Compute yearly salary of SMITH.
```

```
select ename, sal * 12 from emp where ename = 'smith';
```

	ename	(No column name)
1	SMITH	9600

```
--14. List the name and salary for all employees whose salary is not in the range
  of 1500 and 2850.
select ename, sal from emp where sal not between 1500 and 2850;
```

	ename	sal
1	SMITH	800
2	WARD	1250
3	JONES	2975
4	MARTIN	1250
5	SCOTT	3000
6	KING	5000
7	ADAMS	1100
8	JAMES	950
9	FORD	3000
10	MILLER	1300

```
--15. Find all managers who have more than 2 employees reporting to them
select mgr_id,count(empno) as "no of people mapped under a manager"  from emp group
  by mgr_id having count(empno)>2  ;
```

	mgr_id	no of people mapped under a manager
1	7698	5
2	7839	3