1. Retrieve all records from the EMPLOYEE table
   SELECT * FROM EMPLOYEE;

John	B	Smith	123456789	1965-01-09	731_Fondren_Houston_TX	M	30000	333445555	5
Franklin	T	Wong	333445555	1955-12-08	638_Voss_Houston,TX	M	40000	888665555	5
Alicia	J	Zelaya	999887777	1968-01-19	3321_Castle_Spring_TX	F	25000	987654321	4
Jennifer	S	Wallace	987654321	1941-06-20	291_Berry_Bellaire_TX	F	43000	888665555	4
Ramesh	K	Narayen	666884444	1962-09-15	975_Fire_Oak_Humble_TX	M	38000	333445555	5
Joyce	A	English	453453453	1972-07-31	5631_Rice_Houston_TX	F	25000	333445555	5
Ahmad	V	Jabbar	987987987	1969-03-29	980_Dallas_Houston_TX	M	25000	987654321	4
James	E	Borg	888665555	1937-11-10	450_Stone_Houston_TX	M	55000		1

2. Fetch first name and salary of an employee from EMPLOYEE table
   SELECT Fname,Salary FROM EMPLOYEE;

John	30000
Franklin	40000
Alicia	25000
Jennifer	43000
Ramesh	38000
Joyce	25000
Ahmad	25000
James	55000

3. Select a record Where a employee name is John

SELECT * FROM EMPLOYEE WHERE Fname="John";

John	B	Smith	123456789	1965-01-09	731_Fondren_Houston_TX	M	30000	333445555	5

4.Retrieve Employee deatils where gender is male and dno is 5

SELECT * FROM EMPLOYEE WHERE SEX="M" AND Dno=5;

John	B	Smith	123456789	1965-01-09	731_Fondren_Houston_TX	M	30000	333445555	5
Franklin	T	Wong	333445555	1955-12-08	638_Voss_Houston,TX	M	40000	888665555	5
Ramesh	K	Narayen	666884444	1962-09-15	975_Fire_Oak_Humble_TX	M	38000	333445555	5

5.Fetch records having salary more than 35000 and female

SELECT *FROM EMPLOYEE WHERE Salary>35000 AND Sex="F";

Jennifer	S	Wallace	987654321	1941-06-20	291_Berry_Bellaire_TX	F	43000	888665555	4

6.Fetching all the employee whose first name starts with letter A

SELECT * FROM EMPLOYEE WHERE Fname like"A%";

Alicia	J	Zelaya	999887777	1968-01-19	3321_Castle_Spring_TX	F	25000	987654321	4
Ahmad	V	Jabbar	987987987	1969-03-29	980_Dallas_Houston_TX	M	25000	987654321	4

7.Fetching all the employee whose name ends with letter h

SELECT * FROM EMPLOYEE WHERE Lname like"%h";

John	B	Smith	123456789	1965-01-09	731_Fondren_Houston_TX	M	30000	333445555	5
Joyce	A	English	453453453	1972-07-31	5631_Rice_Houston_TX	F	25000	333445555	5

Table 2

8.Distinct word is added

SELECT DISTINCT Dname FROM EMPLOYEE, DEPARTMENT WHERE Sex="M" and EMPLOYEE.Dno=department.Dnumber;

Research
Administration
Headquarters

9.SELECT Dname FROM EMPLOYEE, DEPARTMENT WHERE Sex="M" and EMPLOYEE.Dno=department.Dnumber;

Research
Research
Research
Administration
Headquarters

10.Select the department name ,employee last name who works for more than 15 hours

SELECT D.DName,E.LName, W.Hours FROM EMPLOYEE E, DEPARTMENT D,WORKS_ON W WHERE E.Ssn=w.Essn AND E.Dno=D.Dnumber AND W.Hours>15;

Research	Smith	32.5
Research	Narayen	40
Research	English	20
Research	English	20
Administration	Zelaya	30
Administration	Jabbar	35
Administration	Wallace	20

How many employees are working in sugarland location of a company

SELECT count(*)FROM EMPLOYEE,DLocation WHERE DLocation="Sugarland" AND EMPLOYEE.Dno=Dlocation.Dnumber;

1.Select all employees working in the "Reseach" department

SELECT E.Fname,D.Dname FROM EMPLOYEE E,DEPARTMENT D WHERE E.Dno=D.DNUMBER AND D.Dname="Research"

John	Research
Franklin	Research
Ramesh	Research
Joyce	Research

2.Find employee earning more than $40000

SELECT Fname, Salary FROM EMPLOYEE WHERE Salary>40000;

Jennifer	43000
James	55000

SELECT*FROM EMPLOYEE WHERE Salary>=40000;

Franklin	T	Wong	333445555	1955-12-08	638_Voss_Houston,TX	M	40000	888665555	5
Jennifer	S	Wallace	987654321	1941-06-20	291_Berry_Bellaire_TX	F	43000	888665555	4
James	E	Borg	888665555	1937-11-10	450_Stone_Houston_TX	M	55000		1

3.Display employee names and their department names.

SELECT E.Fname, D.Dname FROM EMPLOYEE E, DEPARTMENT D WHERE E.Dno = D.Dnumber;

John	Research
Franklin	Research
Alicia	Administration
Jennifer	Administration
Ramesh	Research
Joyce	Research
Ahmad	Administration
James	Headquarters

4. Find employees who have **no supervisor**.

A. SELECT Fname FROM EMPLOYEE WHERE Super_ssn IS NULL;

```
James
```

5. Find names of **managers** of each department.
A. SELECT D.Dname, E.Fname, E.Lname FROM DEPARTMENT D, EMPLOYEE E WHERE D.Mgr_ssn = E.Ssn;

Research	Franklin	Wong
Administration	Jennifer	Wallace
Headquarters	James	Borg

6. Find the **total salary** paid to employees in each department.

A. SELECT Dno, SUM(Salary) AS Total_Salary FROM EMPLOYEE GROUP BY Dno;

1	55000
4	93000
5	133000

8. List employees whose salary is **greater than the average salary**.
 A. SELECT Fname, Salary =FROM EMPLOYEE WHERE Salary > (SELECT AVG(Salary) FROM EMPLOYEE);

Franklin	40000
Jennifer	43000
Ramesh	38000
James	55000

9. Find employees who work on **more than one project.**

A. SELECT Essn FROM WORKS_ON GROUP BY Essn HAVING COUNT(Pno) > 1;

123456789
333445555
453453453
987654321
987987987
999887777

10. Find the **project names** where employee 'John Smith' works.
A. SELECT P.Pname FROM PROJECT P, WORKS_ON W, EMPLOYEE E
WHERE E.Fname='John' AND E.Lname='Smith' AND E.Ssn = W.Essn AND W.Pno = P.Pnumber;

ProductX
ProductY

11. List all employees and sort by **salary descending**.
A.   SELECT Fname, Lname, Salary FROM EMPLOYEE ORDER BY Salary DESC;

James	Borg	55000
Jennifer	Wallace	43000
Franklin	Wong	40000
Ramesh	Narayen	38000
John	Smith	30000
Alicia	Zelaya	25000
Joyce	English	25000
Ahmad	Jabbar	25000

12. Display employees born before 1960.
A.   SELECT Fname, Lname FROM EMPLOYEE WHERE Bdate < '1960-01-01';

Franklin	Wong
Jennifer	Wallace
James	Borg

13. Find the **youngest employee.**
A. SELECT Fname, Lname FROM EMPLOYEE WHERE Bdate = (SELECT MAX(Bdate) FROM EMPLOYEE);

Joyce	English

14. Find **department(s)** with **more than 2 employees.**
    A. SELECT Dno, COUNT(*) AS EmpCount FROM EMPLOYEE GROUP BY Dno HAVING COUNT(*) > 2;

4	3
5	4

15. Find employees working in the **same department as 'Alicia Zelaya'**.
    A. SELECT Fname, Lname FROM EMPLOYEE WHERE Dno = (SELECT Dno FROM EMPLOYEE WHERE Fname='Alicia' AND Lname='Zelaya');

Alicia	Zelaya
Jennifer	Wallace
Ahmad	Jabbar

16. Find **projects** located in **Stafford**.
    A. SELECT Pname FROM PROJECT WHERE Plocation='Stafford';

Computerization
Newbenefits

17. Find **dependent names** and their employee's names.
    A. SELECT E.Fname, D.Dependent_name FROM EMPLOYEE E, DEPENDENT D WHERE E.Ssn = D.Essn;

John	Alice
John	Elizabeth
John	Michael
Franklin	Alice
Franklin	Joy
Franklin	Theodore
Jennifer	Abner

18. Find **total working hours per employee.**
    A. SELECT Essn, SUM(Hours) AS TotalHours FROM WORKS_ON GROUP BY Essn;

123456789	40.0
333445555	40
453453453	40
666884444	40
888665555	
987654321	35
987987987	40
999887777	40

19. Find **employees who don't work on any project.**
    A. SELECT Fname, Lname FROM EMPLOYEE WHERE Ssn NOT IN (SELECT Essn FROM WORKS_ON);

20. Find **employees** who have **dependents**.
    A. SELECT DISTINCT E.Fname, E.Lname FROM EMPLOYEE E, DEPENDENT D WHERE E.Ssn = D.Essn;

John	Smith
Franklin	Wong
Jennifer	Wallace

21. Count **number of projects per department.**

    A. SELECT Dnum, COUNT(*) AS ProjectCount FROM PROJECT GROUP BY Dnum;

1	1
4	2
5	3

22. Find **department name** and **number of locations**.

    A. SELECT D.Dname, COUNT(L.Dlocation) FROM DEPARTMENT D, DEPT_LOCATIONS L WHERE
    D.Dnumber = L.Dnumber GROUP BY D.Dname;

23. List **female dependents** only.
    A. SELECT Dependent_name FROM DEPENDENT WHERE Sex='F';

Alice
Joy
Alice
Elizabeth

24. Find **project name** and **number of employees working** on each project.
    A. SELECT P.Pname, COUNT(W.Essn) AS EmpCount FROM PROJECT P, WORKS_ON W
    WHERE P.Pnumber = W.Pno GROUP BY P.Pname;

Computerization	3
Newbenefits	3
ProductX	2
ProductY	3
ProductZ	2
Reorganization	3

25. List employees whose **manager's name is Franklin Wong.**

A. SELECT E.Fname, E.Lname FROM EMPLOYEE E WHERE E.Super_ssn = (SELECT Ssn FROM EMPLOYEE WHERE Fname='Franklin' AND Lname='Wong');

John	Smith
Ramesh	Narayen
Joyce	English

26. Show all **employees and their managers' names.**
    A. SELECT E.Fname AS Emp, S.Fname AS Manager FROM EMPLOYEE E LEFT JOIN EMPLOYEE S ON E.Super_ssn = S.Ssn;

John	Franklin
Franklin	James
Alicia	Jennifer
Jennifer	James
Ramesh	Franklin
Joyce	Franklin
Ahmad	Jennifer
James	

27. Find **employees who work at least 35 hours total.**
    A. SELECT Essn, SUM(Hours) FROM WORKS_ON GROUP BY Essn HAVING SUM(Hours) >= 35;

123456789	40.0
333445555	40
453453453	40
666884444	40
987654321	35
987987987	40
999887777	40

28. Display **project names** handled by department 'Administration'.
    A. SELECT P.Pname FROM PROJECT P WHERE P.Dnum = (SELECT Dnumber FROM DEPARTMENT WHERE Dname='Administration');

Computerization
Newbenefits

29. Find **department name and average salary** of its employees.
    A. SELECT D.Dname, AVG(E.Salary) FROM DEPARTMENT D, EMPLOYEE E WHERE D.Dnumber = E.Dno GROUP BY D.Dname;

Administration	31000.0
Headquarters	55000.0
Research	33250.0

30 Find **employees who work on all projects of department 5.**
A. SELECT E.Fname, E.Lname FROM EMPLOYEE E WHERE NOT EXISTS (SELECT Pnumber FROM PROJECT WHERE Dnum=5 EXCEPT SELECT W.Pno FROM WORKS_ON W WHERE W.Essn=E.Ssn);