Introduction of Computer

Homework 4 Report

Name: 徐子程
Student ID: B06602037
SQLITE DB Browser version: 3.11.99
Please use any legal SQLite commands to finish the following questions.

HW# 4-1 (10%): Find the Dept which contain job “Cook” or “Executive Chef”.

SQLite commands:

```
SELECT DISTINCT Dept FROM JOB
WHERE JobTitle='Cook' OR JobTitle='Executive Chef'
ORDER BY Dept
```

Result:

	Dept
1	B
2	C
3	E

HW# 4-2 (10%): Find all the JobTitle in Dept A.

SQLite commands:

```
SELECT DISTINCT JobTitle FROM JOB
WHERE Dept='A'
```

Result:

	JobTitle
1	Cashier
2	Catering Sales-Order Taker
3	Food Service Director
4	Food Service Sales
5	Waitstaff

HW# 4-3 (10%): Count the assignments which started in 2011 or terminated in 2012.

SQLite commands:

```
SELECT COUNT(*) FROM ASSIGNMENT
WHERE strftime('%Y', StartDate) = '2011' OR strftime('%Y', TermDate) = '2012'
```

Result:

	COUNT(*)
1	23

HW# 4-4 (10%): Find the names of the employees who live in Broadway and list the na me in ascending order.

SQLite commands:

```
SELECT Name FROM EMPLOYEE
WHERE Address LIKE '%Broadway%'
ORDER BY Name
```

Result:

	Name
1	Daniel
2	Jacob
3	Jayden
4	Madison
5	Sophia

HW# 4-5 (10%): Count the assignments which JobTitles contain “Manager”.

SQLite commands:

```
SELECT COUNT(A.JobId) FROM ASSIGNMENT AS A
INNER JOIN JOB AS J ON J.JobId=A.JobId
WHERE J.JobTitle LIKE '%Manager%'
```

Result:

	COUNT(A.JobId)
1	6

HW# 4-6 (10%): Find the employees who have exactly 4 assignments and list their (Name, EmpId)s in a relation.

SQLite commands:

```
SELECT E.Name, E.EmpId FROM EMPLOYEE AS E
INNER JOIN ASSIGNMENT AS A ON E.EmpId=A.EmpId
GROUP BY E.EmpId HAVING count(A.JobId) = 4
ORDER BY E.Name
```

Result:

	Name	EmpId
1	Emma	91L11
2	Ethan	80O5
3	Isabella	64J61
4	William	49F16

HW# 4-7 (10%): Find the employees who have assignments started in 2011 and list thei r (Name, EmpId)s in a relation.

SQLite commands:

```
SELECT DISTINCT E.Name, E.EmpId FROM EMPLOYEE AS E
INNER JOIN ASSIGNMENT AS A ON E.EmpId=A.EmpId
WHERE strftime('%Y', StartDate) = '2011'
ORDER BY E.Name
```

Result:

	Name	EmpId
1	Aiden	75T42
2	Anthony	4J53
3	Emma	91L11
4	Ethan	80O5
5	Isabella	64J61
6	Jayden	4K61
7	Joshua	96Y36
8	Michael	0E86
9	Olivia	87T90
10	Sophia	5B39
11	William	49F16

HW# 4-8 (10%): Find the employees who didn't have assignments started in 2011 and li st their (Name, EmpId)s in a relation.

SQLite commands:

```
SELECT E.Name, E.EmpId FROM EMPLOYEE AS E
INNER JOIN ASSIGNMENT AS A ON E.EmpId=A.EmpId
EXCEPT
SELECT E.Name, E.EmpId FROM EMPLOYEE AS E
INNER JOIN ASSIGNMENT AS A ON E.EmpId=A.EmpId
WHERE strftime('%Y', StartDate) = '2011'
ORDER BY E.Name
```

Result:

	Name	EmpId
1	Abigail	66Z60
2	Alexander	53K29
3	Ava	36M11
4	Chloe	28Y11
5	Daniel	45R78
6	Emily	68G89
7	Jacob	4N22
8	Madison	93P96
9	Noah	8L72

HW# 4-9 (10%): Count jobs' popularity and list their (JobTitle, Count)s in relation.

SQLite commands:

```
SELECT JobTitle, count(JobTitle) FROM JOB AS J
JOIN ASSIGNMENT AS A ON J.JobId = A.JobId
GROUP BY JobTitle
ORDER BY count(JobTitle) DESC
```

Result:

	JobTitle	count(JobTitle)
1	Dishwasher	7
2	Cook	6
3	Bakery Superintendent	5
4	Executive Chef	5
5	Food Service Director	5
6	Cashier	4
7	Food Service Sales	4
8	Food Technologist	4
9	Catering Sales-Order Taker	3
10	Supervisor of Food Services	3
11	Deli Manager	2
12	High School Manager-Nutrition Services	2
13	Purchasing Agent	2
14	Waitstaff	2
15	Banquet Hall Manager	1
16	Caterer	1
17	General Manager	1
18	Registered Dietitian	1

HW# 4-10 (10%): Find which jobs are the top 3 most popular. List them as (JobTitle, Co unt)s in relation. If the job count order is 543332221, you should list the jobs whose cou nt are not lower than 3.

SQLite commands:

```
SELECT J.JobTitle, count(J.JobTitle) FROM JOB AS J
JOIN ASSIGNMENT AS A ON J.JobId = A.JobId
GROUP BY J.JobTitle

HAVING count(J.JobTitle) >= (
SELECT DISTINCT count(J.JobTitle) FROM JOB AS J
JOIN ASSIGNMENT AS A ON J.JobId = A.JobId
GROUP BY J.JobTitle
ORDER BY count(J.JobTitle) DESC
LIMIT 2,1) -- 2,1 represents 3rd largest number

ORDER BY count(J.JobTitle) DESC
```

Result:

	JobTitle	count
1	Dishwasher	7
2	Cook	6
3	Bakery Superintendent	5
4	Executive Chef	5
5	Food Service Director	5