

Introduction of Computer

Homework 4 Report

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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 name 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, Empld)s in a relation.

SQLite commands:

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

Result:

	Name	Empld
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 their (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 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
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, Count)s in relation. If the job count order is 543332221, you should list the jobs whose count 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 2,0) -- 2,0 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