

Mat259 1st Assignment
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Question:

How has check out quantity of books about football, baseball, basketball and hockey varied in accordance with the game time and popularity of the four big leagues: NFL, MLB, NBA and NHL?

Query:

```
select month(cout) as 'Month', year(cout) as 'Year',  
  
sum(case when (title like '%basketball%') then 1 else 0 end) as  
'Basketball',  
  
sum(case when (title like '%football%') then 1 else 0 end) as 'Football',  
  
sum(case when (title like '%baseball%') then 1 else 0 end) as 'Baseball',  
  
sum(case when (title like '%hockey%') then 1 else 0 end) as 'Hockey'  
  
from inraw  
  
where (title like '%basketball%' or title like '%football%' or title like  
'%baseball%' or title like '%hockey%') and year(cout) >= 2008  
  
group by  
year(cout), month(cout)
```

order by
year(cout), month(cout) asc;

Explanation:

Basically, I want to get the check out sum of the books about these four sports in every month in each year. As we know, these four sports all have a specific period of time and I make a intuitive guess that during the game time people tend to check out books more often than the time there are no games. Also, books about the game which is more popular should be checked out more times than those are less popular.

Result:

Month	Year	Basketball	Football	Baseball	Hockey
1	2008	123	116	380	45
2	2008	131	67	365	50
3	2008	117	61	520	23
4	2008	84	76	605	39
5	2008	81	79	606	29
6	2008	95	102	624	31
7	2008	103	102	511	20
8	2008	83	104	461	26
9	2008	78	116	377	33
10	2008	97	212	367	43
11	2008	104	163	361	54
12	2008	84	139	306	41
1	2009	122	170	450	52
2	2009	145	95	422	33
3	2009	166	97	498	43
4	2009	144	79	570	22
5	2009	112	80	542	18
6	2009	129	107	599	38
7	2009	131	92	616	22
8	2009	112	115	437	22
9	2009	93	100	268	18
10	2009	100	115	413	38

11	2009	179	102	331	20
12	2009	166	91	261	36
1	2010	161	95	385	37
2	2010	132	103	383	36
3	2010	158	82	575	25
4	2010	166	81	561	28
5	2010	138	72	547	37
6	2010	174	91	576	32
7	2010	143	106	549	30
8	2010	164	124	523	21
9	2010	89	144	343	25
10	2010	192	204	430	33
11	2010	176	149	332	24
12	2010	185	135	355	28
1	2011	176	168	362	41
2	2011	155	115	321	22
3	2011	204	127	538	31
4	2011	174	121	618	27
5	2011	150	89	546	19
6	2011	174	98	630	25
7	2011	135	70	455	15
8	2011	91	87	331	13
9	2011	72	62	211	17
10	2011	91	110	271	21
11	2011	98	122	240	27
12	2011	99	93	201	13
1	2012	89	132	215	24
2	2012	112	93	213	34
3	2012	120	97	255	25
4	2012	104	76	299	23
5	2012	119	57	293	21
6	2012	134	76	370	21
7	2012	158	104	355	33
8	2012	115	65	219	20
9	2012	106	126	199	16
10	2012	123	131	211	30
11	2012	126	146	196	26
12	2012	90	134	174	37
1	2013	127	197	223	47
2	2013	109	134	187	39
3	2013	128	115	231	37
4	2013	106	100	335	20
5	2013	126	82	259	30
6	2013	128	97	327	30
7	2013	136	117	330	36
8	2013	89	119	287	22
9	2013	82	138	234	21
10	2013	92	199	233	15
11	2013	88	178	182	26
12	2013	60	88	76	8
1	2014	1	2	0	0

Processing time:

No errors; 73 rows affected, taking 128 s

We can see it takes 128s to retrieval the data.

Analysis:

We give the time when these four sports have games.

NFL: Aug. - Feb.

MLB: Apr. - Nov.

NBA: Nov. - Jun.

NHL: Oct. - Jun.

Popularity: football > baseball > basketball > hockey.

From the result we can see that people tend to check out hockey books least, this is reasonable according to the popularity. In terms of football and basketball, people tend to check out basketball books from February to the time NBA ends, while from August to January people check out books about football more than books about basketball to some degree, which is in accordance with the game time of these two sports and their popularity. In terms of baseball, it's reasonable people check out books most during Apr, May, June and July in the whole year when baseball games have just started after a half year pause. However, it's strange people check out baseball books most, I think maybe Seattle people like their local baseball team more and their library has more books about baseball than football.