

Q1:

1. Application table - containing application ID, application date, and its associated merchant ID from 2019-10-28 to 2019-10-31.

applicationid	↓ ∑ ▾ ▹ ▸	merchantid	↓ ∑ ▾ ▹ ▸	applicationdate	▾ ▹ ▸
3210603		21010		2019-10-28 05:34:22	
3210876		26822		2019-10-28 10:43:21	
3211083		28949		2019-10-28 13:48:41	
3211326		19898		2019-10-28 21:57:51	
3211698		43883		2019-10-29 12:14:21	
3211944		43883		2019-10-29 16:28:08	
3212146		45067		2019-10-30 08:10:53	
3212433		19009		2019-10-30 12:10:57	
3212507		45948		2019-10-30 12:52:01	

2. Merchant table - containing merchant ID and its associated merchant name.

merchantid	↓ ∑ ▾ ▹ ▸	businessname	▾ ▹ ▸
25		Tantillo, Michael	
38		Dr. Rodney A. Green M.D Facs	
365		Chaney, Michael	
388		Arizona Craniofacial & Plastic Surgery	
701		Millard, John A	
758		John Lomonaco, M.D, PA	

Question: Please construct SQL queries to answer the two questions below:

- how many applications were receives from each merchant between 2019-10-28 and 2019-10-31?
- what are the top three merchant names by applications received between 2019-10-28 and 2019-10-31?

Q2:

Loan_status table

loannumber	↓ ∑ ↑ ↕	ach_yn	↓ ∑ ↑ ↕	daysonfile	↓ ∑ ↑ ↕	reportdate	↑ ↕
2224203		0		1		2019-10-24 00:...	
2224203		0		2		2019-10-25 00:...	
2224203		0		3		2019-10-26 00:...	
2224203		0		4		2019-10-27 00:...	
2224203		1		5		2019-10-28 00:...	
2224203		1		6		2019-10-29 00:...	
2224203		1		7		2019-10-30 00:...	
2224203		1		8		2019-10-31 00:...	
2228005		0		1		2019-10-24 00:...	
2228005		0		2		2019-10-25 00:...	
2228005		0		3		2019-10-26 00:...	
2228005		0		4		2019-10-27 00:...	
2228005		0		5		2019-10-28 00:...	
2228005		0		6		2019-10-29 00:...	
2228005		0		7		2019-10-30 00:...	
2228005		1		8		2019-10-31 00:...	

Here is a table containing ACH status of loans from 10-24-2019 to 10-31-2019. "ach_yn" is the flag for the daily ACH status of a loan (1 = Yes, 0 = No). "ach_yn" = 1 means the borrower has an active automatic payment on that day.

- When "ach_yn" changes from 0 to 1 between two consecutive days, the loan has enrolled in ACH (enrollment)
- When "ach_yn" changes from 1 to 0 between two consecutive days, the loan has stopped enrolling in ACH

Question: Please construct SQL queries to answer the two questions below::

- how many enrollments happened within this time period (10-24-2019 to 10-31-2019)?
- how many enrollments happened in each day ("reportdate") between 10-24-2019 to 10-31-2019?