| Business Case- In this business case, an extract of a Paper company’s database is available to analyze the company's business operations. The company has three products (Standard, Gloss, and Poster paper) and several agents to support the business through various web channels such as (Facebook, Adwords, Twitter direct, etc.) The company uses different channels to promote its products, and different accounts connect to the company via these channels to place orders. Such data is also logged in the database. |
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**Problem Statements :**

Q.1 How many events were conducted via Facebook and Twitter in January 2015?

select count(event\_id)

from (WITH x AS

(select event\_id,account\_id,channel,monthname(occurred\_at) as "Month",Year(occurred\_at) as "Year"

from pm\_web\_events)

select event\_id,account\_id,channel,concat(Month,"-",Year) as "Occured"

from x) a

where (channel= "Facebook" or channel="Twitter") and Occured="January-2015"

Q.2 How many accounts are operated by the agents of the ‘Northeast’ location?

select count(id)

from pm\_accounts a

join pm\_agents b

on a.agent\_id=b.agent\_id

where location = "Northeast"

Q.3 Find out the accounts-to-agents ratio for the accounts operated by the agents of the ‘Midwest’ location.

select count(a.id)

from pm\_accounts a

join pm\_agents b

on a.agent\_id=b.agent\_id

where location = "Midwest"

select count(distinct(b.agent\_id))

from pm\_accounts a

join pm\_agents b

on a.agent\_id=b.agent\_id

where location = "Midwest"

(Divide the Output of the two queries )

Q.4 List the account name for which orders have been placed.

select distinct(name)

from pm\_orders a

join pm\_accounts b

on a.account\_id=b.id

Q.5 Select the account that made the highest total sales between 12-Jan-2014 to 15-Nov-2015.

select b.name,a.account\_id,sum(a.total\_amt\_usd) as "Total\_sale"

from pm\_orders a

join pm\_accounts b

on a.account\_id=b.id

where occurred\_at between ("2014-01-12") and ("2015-11-15")

group by name,account\_id

order by Total\_sale desc

limit 1

Q.6 Select the account/(s) which used Twitter as a channel more than ten times.

select distinct(x.name)

from (select e.account\_id,f.name,e.channel,e.c

from (select \*

from (select account\_id,channel,count(channel)over(partition by account\_id,channel) as "c"

from pm\_web\_events) a

order by c desc) e

join pm\_accounts f

on e.account\_id=f.id

where e.channel = "Twitter" and c > 10

order by c desc) x

Q.7 Calculate the annual revenue of each account. Based on the result, find the percentage of revenue coming from each account in the respective year.  
Share the account\_id, year who has the highest perc of revenue.

select \*, (Total)/(total\_in\_year)\*100 as "Perc"

from (select a.account\_id,a.Year,a.Total,b.total\_in\_year

from (select account\_id,Year(occurred\_at) as "Year",sum(total\_amt\_usd) as "Total"

from pm\_orders

group by Year,account\_id) a

join (select Year(occurred\_at) as "year",sum(total\_amt\_usd) as "total\_in\_year"

from pm\_orders

group by year) b

on a.Year=b.year) c

order by Perc desc

limit 1