Analysis Report

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Task 1.0 - Data Insights

Problem: Which of the existing Marketing Segments is the most successful?

It depends on the following matrix: customer churn, demographic data, activation over time,profit.

demographic data: calculate number of people of each type of segment

customer churn: calculate each segment current paying customer and cancelled customer

activation over time: group current paying customer group by monthly or quarterly to determine trend of increasing or losing customer.

profit: calculate which type segment customers get more sale.

if i have more time, i will conduct additional analysis like following:

1. rank customers by segment by session_count by total amount like session_count 0-100, 100-500, 500-1000, >1000

    a). determine which group get most % of people who has session_count in 500-1000, >1000

    b). determine the customer lifespan and customer lifetime value

2. calculate customer cancelled by segment by month(quarterly)

    a). to check any unexpected increase cancelled rate on specific period

    b). to determine which period got most cancelled rate and determine any possible reason

3. there 3 release data according to data

   a). check any upgrade or cancelled sudden increase or decrease near

   2017-06-08, 2018-11-13 and 2018-11-14

4. more deep analysis on data on last seen

   a). e.g How many people have not log in last month/three month/half
   year, but still not cancelled yet

   b). what is possible reason for them not logging so long

   perform following email, or survey ask them for advice or suggestion

Task 2 : Database/SQL Assignment

2.1 - Total Revenue grouped by CSM

SELECT SUM(b.amount) **AS** Total

FROM bills b

2.2 - % Revenue from now Cancelled Accounts grouped by Segment

SELECT

      SUM(b.amount),

      c.segment,

      SUM(b.amount)/(**SELECT SUM**(b.amount) AS Total **FROM** bills b)

FROM bills b

LEFT JOIN accounts a

ON b.account_id = a.id

LEFT JOIN customers c

ON b.account_id = c.account_id

WHERE a.status = 'cancelled'

GROUP BY c.segment

2.3 - Total Revenue of Paying Customers grouped by CSM and by Segment

SELECT

SUM(b.amount) AS Total,

c.segment

FROM bills b

LEFT JOIN accounts a

ON a.id = b.account_id

LEFT JOIN customers c

ON b.account_id = c.account_id

WHERE a.status = 'paying'

GROUP BY c.segment