Case Medical Database analysis

## Type of database used:

* Microsoft SQL Server database

## Tables and fields needed for this project:

* SO\_Master
  + ORDNUM\_27 - Order number
  + REP1\_27 - Sales Person ID number
  + CreationDate - Date the order was created
  + CUSTID\_27 - ID of the customer
  + REP1\_27 - Sales Rep for the master order Can the sales rep change in the order? The master order has 1 sales rep and detail for the order has sales rep too.
  + REP2\_27 Most of the populated with a valid salesperson id when HOUSE (SLSREP\_26 == 357) is used - every entity that makes sales needs to be represented as rep.
  + REP3\_27 it is always ‘’ (string without content)
* SO\_Details
  + ORDNUM\_28 (it ties back to ORDNUM\_27 in SO\_Master)
  + CUSTID\_28 (ties back to CUSTID\_27 in SO\_Master)
  + PRTNUM\_28 - Part number of the part purchased
  + ORGQTY\_28 - the number of items per order
  + SLSREP\_28 - Sales rep for each item on the order
* Sales\_Rep\_Master
  + FILLER\_26 - Sales personnel active or inactive and email address for salespersons - Very important to skim the inactive in the table - SELECT \* FROM Sales\_Rep\_Master WHERE FILLER\_26 != 'INACTIVE'
  + SLSREP\_26 - Sales Rep ID - ties back to SLSREP\_28 in SO\_Details and REP1\_27 or REP2\_27 or REP3\_27 in SO\_Master
* Customer\_Master
  + CUSTID\_23 - ID number of the customer - used in correlation with CUSTID\_27 to verify the customer name
  + NAME\_23 - Name of the customer - need to be careful because some names have no string in it -> SELECT \* FROM Customer\_Master WHERE NAME\_23 = '' return 7 IDs, and they may have active orders.

Notes :

* Customer\_Master will need to be used for the customer search, we need to decide if we need to import the whole table over to a local database or if we should just query the SQL database.
* SO\_Master is the table that will be used for analysis purposes, we will need to analyze the new orders and old orders (based on creation date) and generate the predictions.
* Sales\_Rep\_Master Will need to be used to contact the sales personnel, every order has an associated sales rep, and the number can be used to find the email in this table.
* SO\_Details is the table that will need to be read in correlation to SO\_Master, SO\_Master does not contain the info about the customer, it just contains the SO numbers, while SO\_Details contains the SO Numbers (ORDNUM\_28) associated with every item that was ordered.
* SO\_Details has 88495 orders that were placed since 2018 -   
  SELECT \* FROM [ExactMAXCaseMedical].[dbo].[SO\_Detail] WHERE CreationDate >= '2018'
* SO\_Master has 39238 orders that were placed since 2018 -   
  SELECT \* FROM [ExactMAXCaseMedical].[dbo].[SO\_Master] WHERE CreationDate >= '2018'
* The ration is very low, meaning that for each SO\_Master order created in 2018 there are only 2.25 items SO\_Details.
* There are 352 customers that have more than 50 orders in SO\_Master -  
  SELECT CUSTID\_27, COUNT (CUSTID\_27) FROM SO\_Master GROUP BY CUSTID\_27 ORDER BY COUNT(\*) DESC
* There are 152 customers that have more than 50 orders in SO\_Master purchased since 2018 -  
  SELECT CUSTID\_27, COUNT (CUSTID\_27) FROM SO\_Master WHERE CreationDate >= '2018' GROUP BY CUSTID\_27 ORDER BY COUNT(\*) DESCSELECT CUSTID\_27, COUNT (CUSTID\_27) FROM SO\_Master WHERE CreationDate >= '2018' GROUP BY CUSTID\_27 ORDER BY COUNT(\*) DESC
* There are 435 customers that have more than 100 items purchased in SO\_Details -  
  SELECT CUSTID\_28, COUNT (CUSTID\_28) FROM SO\_Detail GROUP BY CUSTID\_28 ORDER BY COUNT(\*) DESC
* There are 175 customers that have more than 100 items purchased since 2018 in SO\_Details -  
  SELECT CUSTID\_28, COUNT (CUSTID\_28) FROM SO\_Detail WHERE CreationDate >= '2018' GROUP BY CUSTID\_28 ORDER BY COUNT(\*) DESC