Final query scripts:

Q1:

select productname,CR.contactfname as retailer\_contact\_name,customername ,

doctorname, CF.contactfname as facility\_contact\_name, materialname,

SC.contactfname as supplier\_contact\_name

from retailer R

join retaillicensenumber RLN on R.retailerID = RLN.retailer\_retailerID

join distributors D on RLN.Distributors\_DistributorID = D.DistributorID

join distributors\_has\_products D\_H\_P on D.DistributorID = D\_H\_P.Distributors\_DistributorID

join products P on D\_H\_P.Products\_ProductID = P.ProductID

join company CR on CR.CompanyID = R.Company\_CompanyID

join retailer\_perscription R\_P on R.RetailerID = R\_P.Retailer\_RetailerID

join perscription PERS on R\_P.Perscription\_PerscriptionID = PERS.PerscriptionID

join Customer CUST on PERS.Customer\_CustomerID = CUST.customerID

join Doctor DOCT on PERS.Doctor\_DoctorID = DOCT.DoctorID

join products\_has\_processingfacilities PHP on P.ProductID = PHP.Products\_ProductID

join processingfacilities PF on PHP.ProcessingFacilities\_ProcessingFacilitiesID = PF.ProcessingFacilitiesID

join company CF on CF.CompanyID = PF.Company\_CompanyID

join facilitieslicensenumber FLN on FLN.ProcessingFacilities\_ProcessingFacilitiesID = PF.ProcessingFacilitiesID

join rawmaterial RM on RM.RawMaterialID = FLN.RawMaterial\_RawMaterialID

join produces PRD on PRD.RawMaterial\_RawMaterialID = RM.RawMaterialID

join supplier SUP on SUP.SupplierID = PRD.Supplier\_SupplierID

join company SC on SC.CompanyID = SUP.Company\_CompanyID

group by productname

# All my ID's progress from 0 to 10, that's why the returned values are ordered as such

;

Q2:

1. **Recency**

Create view recency(recency,customerID) as

select (perscriptiondate), customerID from customer c

join perscription p on c.CustomerID = p.Customer\_CustomerID

order by PerscriptionDate desc

1. **Frequency**

create view frequency(frequency,CustomerID) as

select count(perscriptionID), customerID

from customer C join perscription P on C.CustomerID = P.Customer\_CustomerID

group by customername LIMIT 0, 1000

1. **Monetary value**

create view mostvalue(customerID,

select customerID, max(perscriptionquantity \* productprice) as MonetaryValue from customer CUST

join perscription PRS on CUST.CustomerID = PRS.Customer\_CustomerID

join retailer\_perscription R\_P on R\_P.Perscription\_PerscriptionID = PRS.PerscriptionID

join retailer R on R.RetailerID = R\_P.Retailer\_RetailerID

join retaillicensenumber RLN on RLN.Retailer\_RetailerID = R.RetailerID

join distributors DIST on DIST.DistributorID = RLN.Distributors\_DistributorID

join distributors\_has\_products DHP on DHP.Distributors\_DistributorID = DIST.DistributorID

join products PROD on PROD.ProductID = DHP.Products\_ProductID

group by customerID order by MonetaryValue desc;

1. **RFM View**

create view RFMView as

select C.customerID,R.recency,F.frequency,M.monetaryvalue

from customer C, recency R , frequency F,mostvalue M

where C.customerID = F.customerID and C.customerID = R.customerID

and C.customerID = M.customerID

group by customerID,recency,frequency,monetaryvalue

1. **RFM Mean**

create view RFM\_Mean as

select avg(recency) as mean\_rec,avg(frequency) as mean\_freq,avg(monetaryvalue) as mean\_value

from RFMView

1. **RFM scoring**

create view RFM\_SCORING as

select customerID,

(Case when rfmview.frequency > rfm\_mean.mean\_freq then 1

else 0

End) as Freq,

(Case when rfmview.recency > rfm\_mean.mean\_rec then 1

else 0

End) as Recent,

(Case when rfmview.MonetaryValue > rfm\_mean.mean\_value then 1

else 0

end) as Valuable

from rfmview,rfm\_mean

group by customerID,Freq,Recent,Valuable;

1. **Final RFM score**

create view finalRFMScore as

select customerID,max(freq + Recent + Valuable) as score from RFM\_SCORING

group by customerID

1. **Demographic**

select score,gender,age from finalRFMScore FRFMS

join customer C on FRFMS.customerID = C.CustomerID

where score = 3;

Q3 – Three Queries of my own choice

1. Checking the retailers license numbers

select C.ContactFName,RetailLicenseNumber from retailer R

join retaillicensenumber RLN on RLN.Retailer\_RetailerID = R.RetailerID

join company C on C.CompanyID = R.Company\_CompanyID

group by C.ContactFName;

1. Checking if there is a correlation between drug price and targeted disease

select treatment, max(ProductPrice) as MaxPrice,min(productprice) as MinPrice

from products

where productprice > 100

group by treatment

1. Machine Learning Project

select age,bloodtype,gender, perscriptionQuantity from customer C

join perscription P on C.CustomerID = P.Customer\_CustomerID