Analytical sql project

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1-Inspecting Data

Select \* from online\_retail;

2-Check unique values

* select count(distinct invoiceno) from online\_retail; --number of transactions
* select count(distinct stockcode) from online\_retail;

--number of sold products

* select distinct extract(year from invoicedate) as year from online\_retail;

--the time frame for the dataset is from 2010 to 2011

* select distinct extract(month from invoicedate) as month from online\_retail

where to\_char(invoicedate, 'YYYY') = '2011';

--the time frame for the dataset is from december 2010 to december 2011

* select count(distinct customerid) from online\_retail;

--number of customers

* select count(distinct country) from online\_retail; --number of countries

3-Analysis

1. select country, trunc(sum(quantity \* unitprice)) as total\_amount

from online\_retail

group by 1

order by 2 desc;

--total sales in every country ordered from highest to lowest

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1. select distinct extract(year from invoicedate) as year, trunc(sum(quantity \* unitprice)) as total\_amount

from online\_retail

group by 1

order by 2 desc, 1 desc;

##Description:

--total sales in every year but it is not helpful because we have only one month in 2010 comparing the whole year of 2011.

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1. select months, total\_amount,

lag(total\_amount, 1) over(order by months) prev\_month,

total\_amount - (lag(total\_amount, 1) over(order by months)) as status

from(

select to\_date(to\_char(invoicedate, 'month-YYYY'), 'month-YYYY') as months, trunc(sum(quantity \* unitprice)) as total\_amount

from online\_retail

group by 1

order by 1 ) as sales\_per\_months

## Description:

--total sales for every month and the month before it and status column to show me whether i am earning or loosing

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1. select months, total\_amount,

dense\_rank() over(order by total\_amount desc) as highest\_sales

from(

select to\_date(to\_char(invoicedate, 'month-YYYY'), 'month-YYYY') as months, trunc(sum(quantity \* unitprice)) as total\_amount

from online\_retail

group by 1

order by 1 ) as sales\_per\_months ;

##Description:

--top sales grouping by month and ordered from highest to lowest so we can see which months have drop and improve sales in it, and find months with best sells and establish my campains in it

1. select country, count(DR) as num\_of\_customers

from(

select country, customerid, round(sum(quantity\*unitprice)) as revenue,

dense\_rank() over(partition by country order by sum(quantity\*unitprice) desc) as DR

from online\_retail

where customerid != ''

group by 1,2

order by 3 desc) as DR\_table

group by 1

order by 2 desc

## Description:

--this query shows countries with number of customers in it,

Country with most num of customers is UK. And it has the highest revenue

We can also find coutries with low number of customers and try to increase them

1. select \*

from(

select description, country, trunc(sum(quantity \* unitprice)) as total\_amount,

dense\_rank() over(partition by country order by sum(quantity \* unitprice) desc) AS DR

from online\_retail

group by 1 ,2

order by 3 desc, 2 desc) as most\_selling\_product

WHERE DR = 1 ;

##Description:

--Top selling product in every country

7. select (count(invoiceno)/ sum(orders))\*100 as cancelled\_orders\_perc

from(

select invoiceno, count(invoiceno) as orders

from online\_retail

group by invoiceno) as order\_tbl

where invoiceno like 'C%';

##Description:

--percentage of cancelled orders and how to reduce it

8. select \* from online\_retail

Where customerid = ‘ ’;

##Description:

--shows transactions with no customerid and find out how to solve it