

DATA ANALYTICS ASSIGNMENT - 01

DATA ANALYTICS WITH IBM COGNOS ANALYTICS

DATE : 08 - 09 - 2023

SOFTWARE USED : IBM COGNOS ANALYTICS

SUBMITTED BY:

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CAMPUS : VIT - AP UNIVERSITY

SUBMITTED TO :

INDRA SIR (SMARTINTERNZ)



**VIT-AP
UNIVERSITY**

VIT-AP UNIVERSITY AMARAVATI

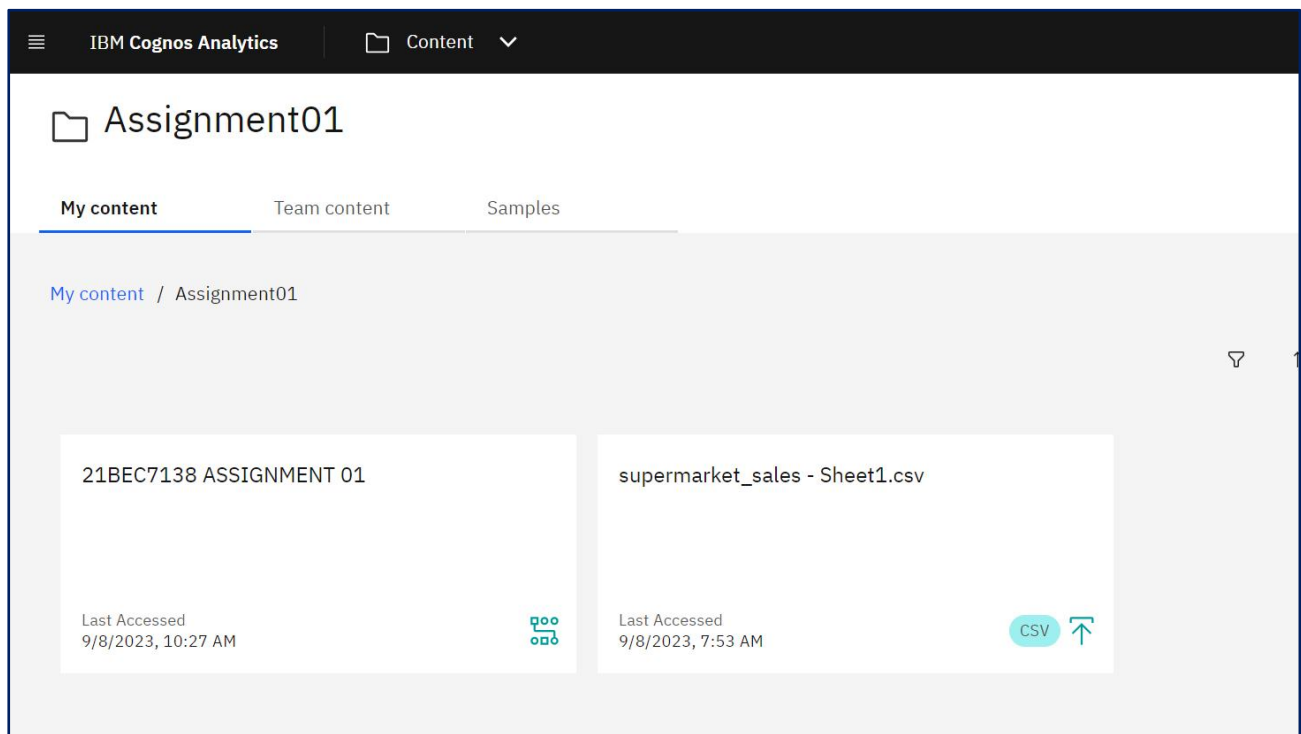
ANDHRA PRADESH, INDIA

❖ Objective:

Upload the dataset to Cognos Analytics, delete the unnecessary columns, create a data module, explore and visualize the dataset.

➤ **Uploading dataset to IBM cognos analytics:**

Given dataset: [supermarket_sales - Sheet1]



➤ **Deleting unnecessary columns:**

As **Invoice ID** column is not required, deleting that column.

↑↓	Row Id	Invoice ID	Branch	City
	1	750-67-8428	A	Yangon
	2	226-31-3081	C	Naypyitaw
	3	631-41-3108	A	Yangon
	4	123-19-1176	A	Yangon
	5	373-73-7910	A	Yangon
	6	699-14-3026	C	Naypyitaw
	7	355-53-5943	A	Yangon
	8	315-22-5665	C	Naypyitaw
	9	665-32-9167	A	Yangon
	10	692-92-5582	B	Mandalay

↑↓	Row Id	Branch	City	Customer type
	1	A	Yangon	Member
	2	C	Naypyitaw	Normal
	3	A	Yangon	Normal
	4	A	Yangon	Member
	5	A	Yangon	Normal
	6	C	Naypyitaw	Normal
	7	A	Yangon	Member
	8	C	Naypyitaw	Normal
	9	A	Yangon	Member
	10	B	Mandalay	Member

➤ **Creating data module:**

IBM Cognos Analytics

21BEC7138 ASSIGNMENT 01

36°

Grid

Relationships

Custom tables

↑↓

Row Id

Branch

City

Customer type

Gender

Product

1

A

Yangon

Member

Female

Health

2

C

Naypyitaw

Normal

Female

Elect

3

A

Yangon

Normal

Male

Home

4

A

Yangon

Member

Male

Health

5

A

Yangon

Normal

Male

Sport

6

C

Naypyitaw

Normal

Male

Elect

7

A

Yangon

Member

Female

Elect

8

C

Naypyitaw

Normal

Female

Home

9

A

Yangon

Member

Female

Health

10

B

Mandalay

Member

Female

Food

Data module

+

?

Search

supermar...eet1.csv

Row Id

abc Branch

City

abc Customer type

abc Gender

abc Product line

Unit price

Quantity

Tax 5%

Total

🕒 Date

🕒 Time

Properties

➤ Splitting date column:

Split column - Date

Select the items that will be used to create new columns.

Year

Month

Day

2019

1

5

☒ Include the day of the week

Preview

Date	Year	Month	Day	Day of the week
2019-01-05	2019	1	5	Saturday
2019-02-06	2019	2	6	Wednesday
2019-03-29	2019	3	29	Friday
2019-03-11	2019	3	11	Monday
2019-03-22	2019	3	22	Friday
2019-02-10	2019	2	10	Sunday
2019-03-27	2019	3	27	Wednesday
2019-03-12	2019	3	12	Tuesday
2019-02-14	2019	2	14	Thursday
2019-01-24	2019	1	24	Thursday

Cancel

Next

➤ Adding new column 'Original price':

Create calculation

Name

Components

Search

supermarke...heet1.csv

Row Id

abc Branch

City

abc Customer type

abc Gender

abc Product line

Unit price

Quantity

Tax 5%

Total

Expression

1 (Quantity * Unit_price) - Tax_5%

Preview (Execution time: 5.957 seconds)

Refresh

Original price	Quantity	Unit price	Tax 5%
496.6884999999999	7	74.69	26.1415
72.58	5	15.28	3.82

Grid

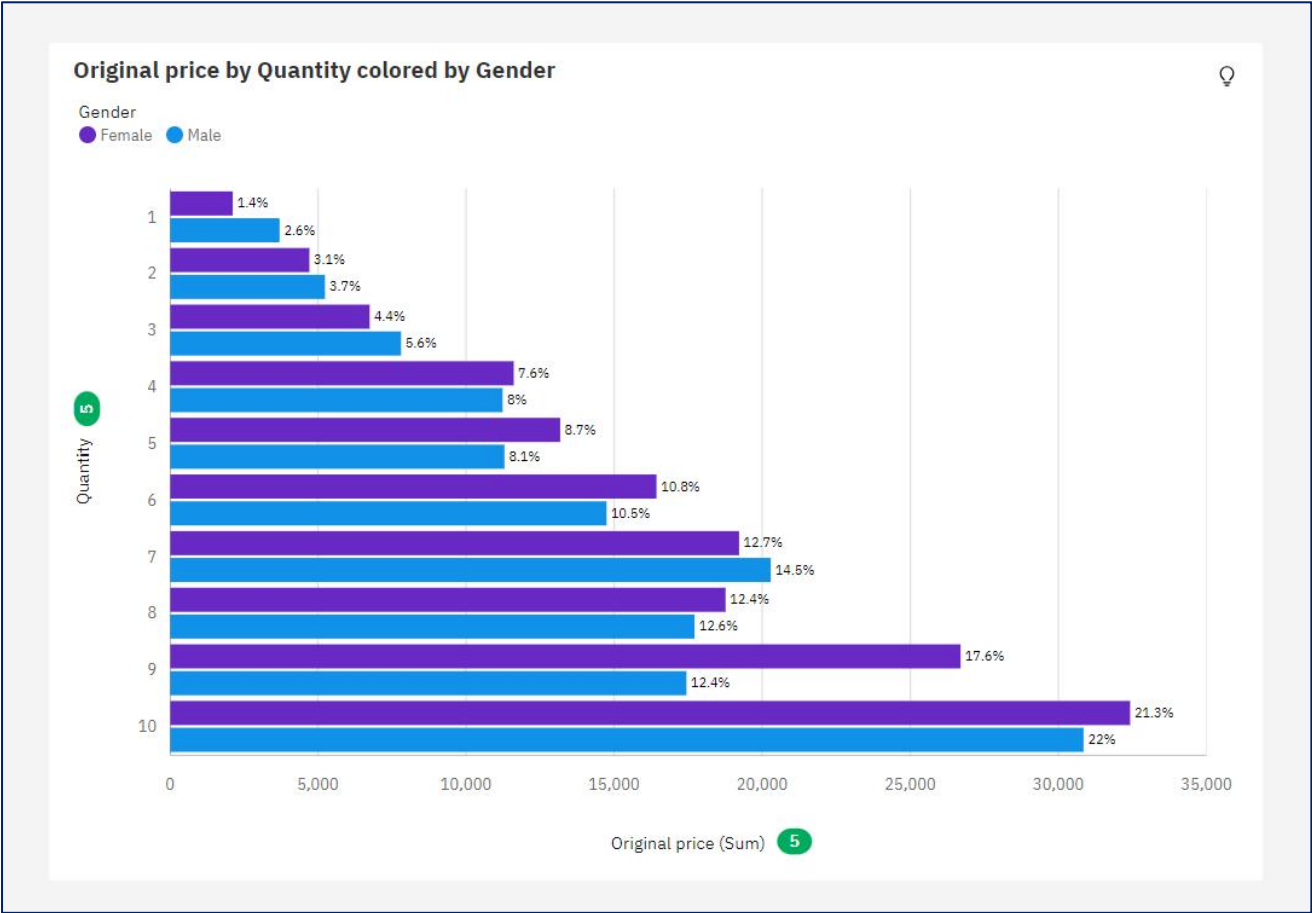
Relationships

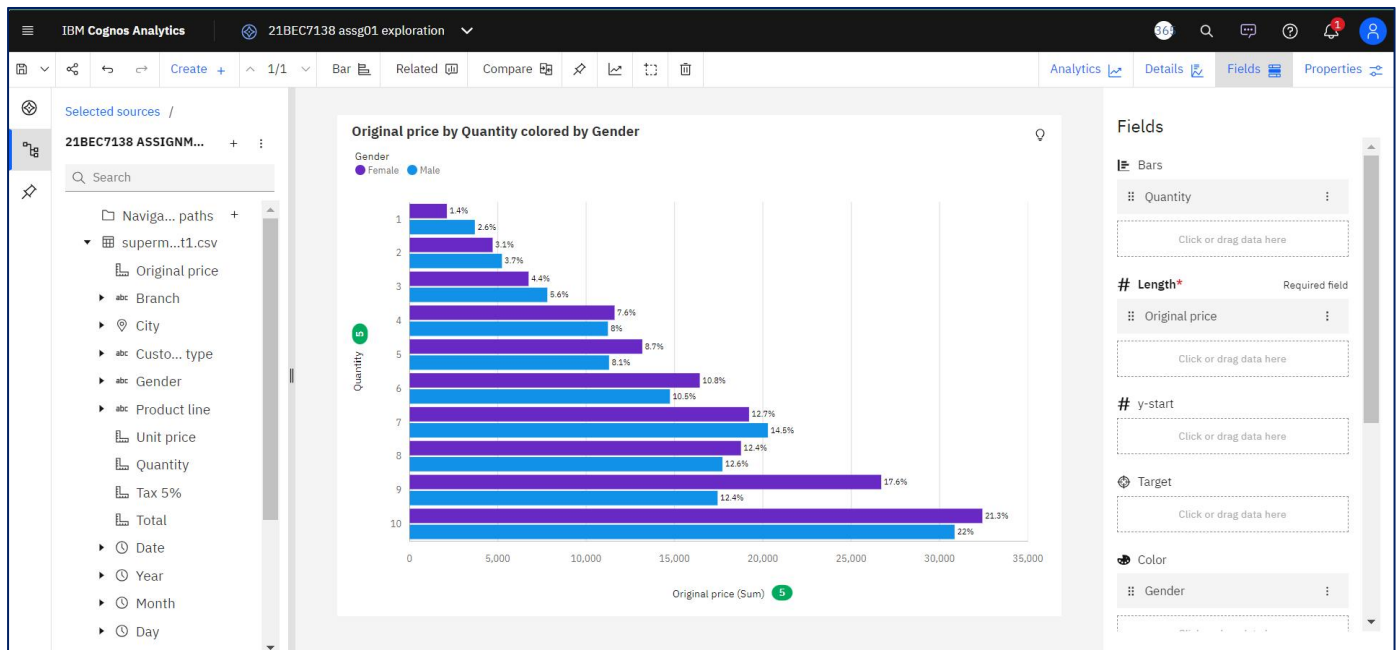
Custom tables

↕	Original price	Row Id	Branch	City	Customer type
	496.6884999999999	1	A	Yangon	Member
	72.58	2	C	Naypyitaw	Normal
	308.0945	3	A	Yangon	Normal
	442.472	4	A	Yangon	Member
	573.9615000000001	5	A	Yangon	Normal
	567.8435000000001	6	C	Naypyitaw	Normal
	392.38800000000003	7	A	Yangon	Member
	698.82	8	C	Naypyitaw	Normal
	68.89399999999999	9	A	Yangon	Member

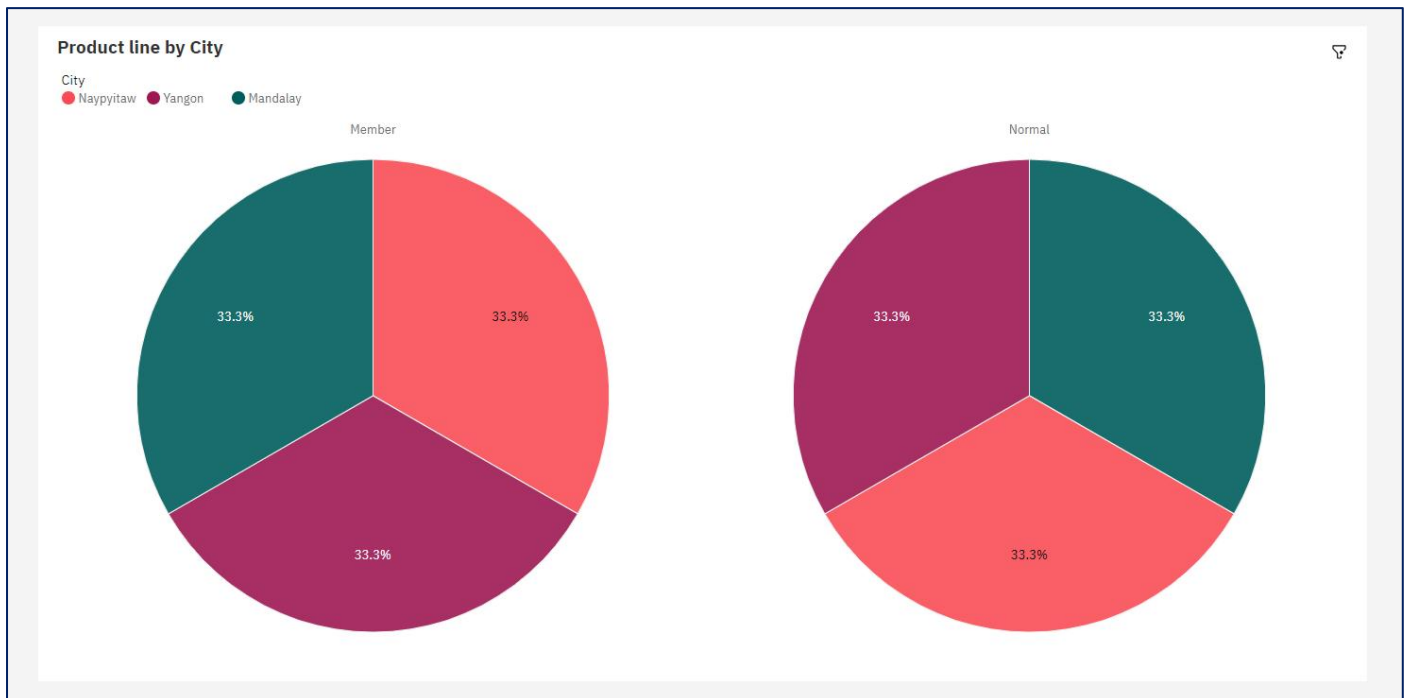
➤ Exploring and visualizing the dataset:

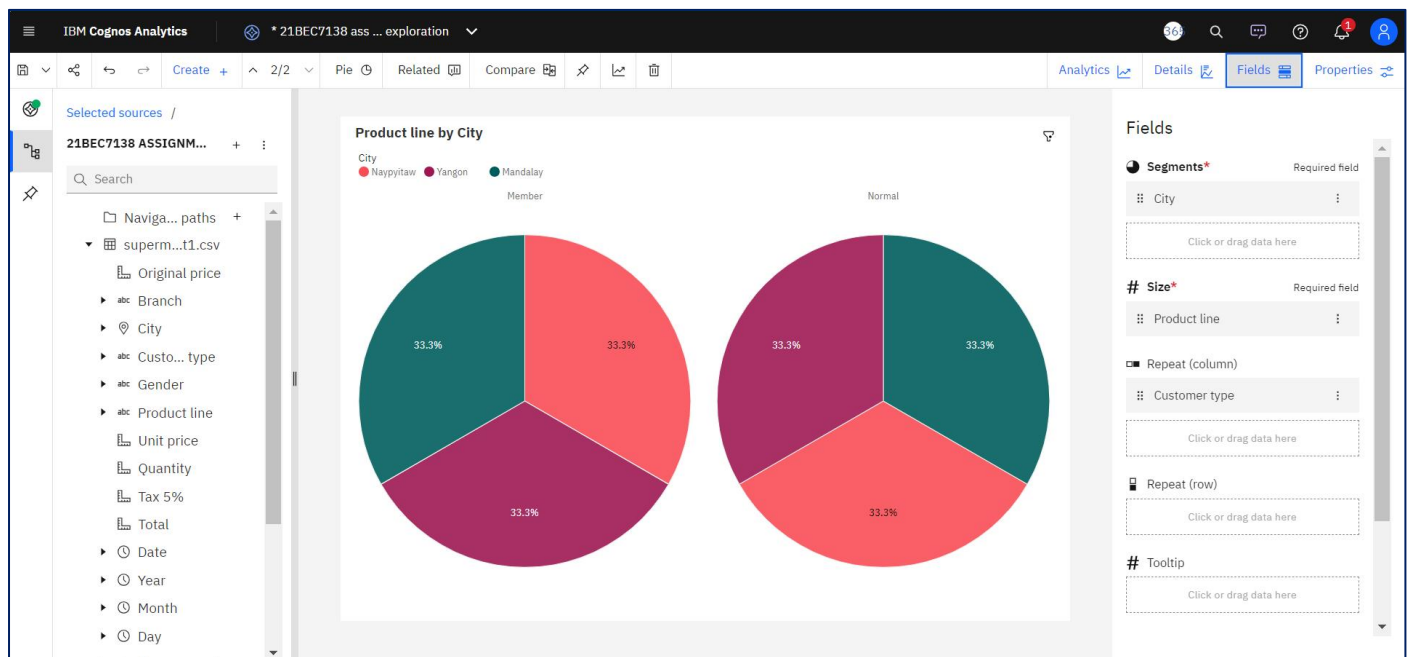
➤ 1) Bar Plot:





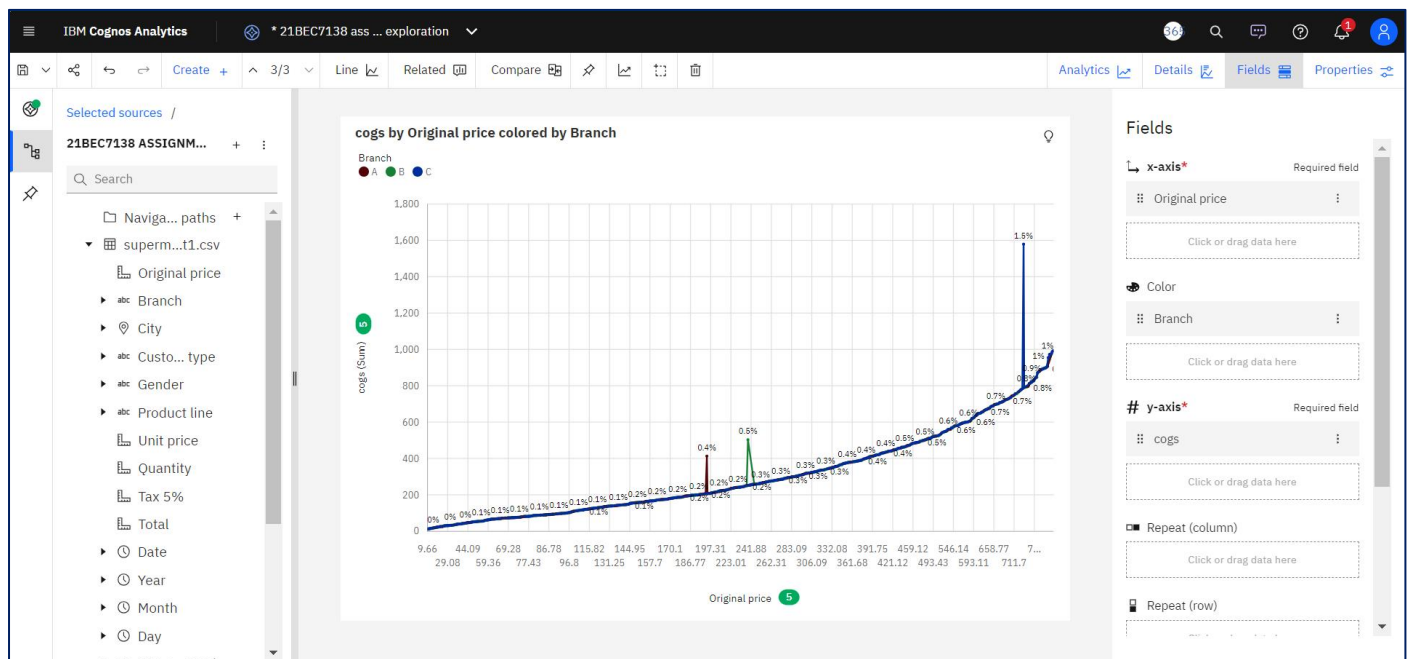
➤ 2) Bar Plot:



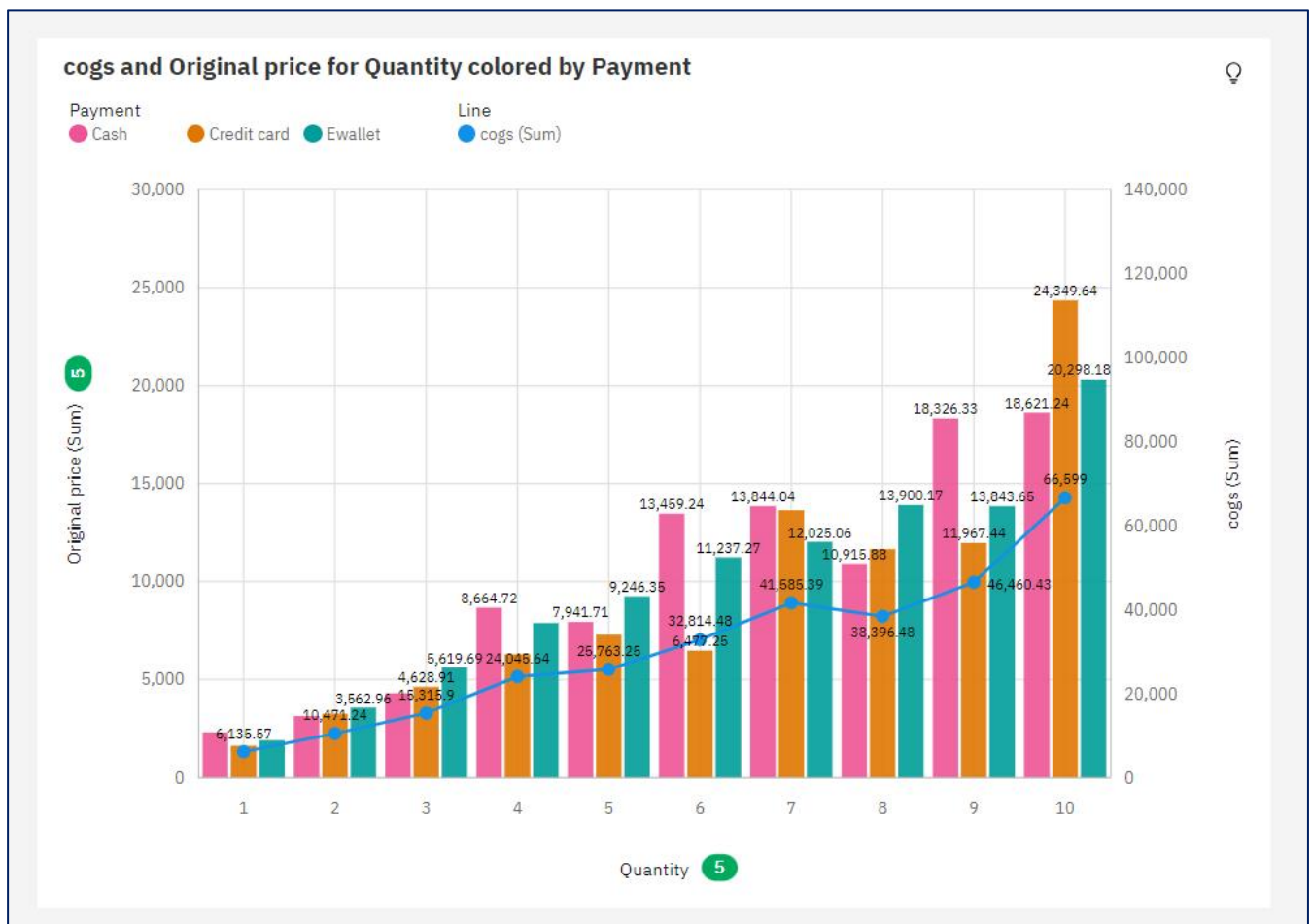


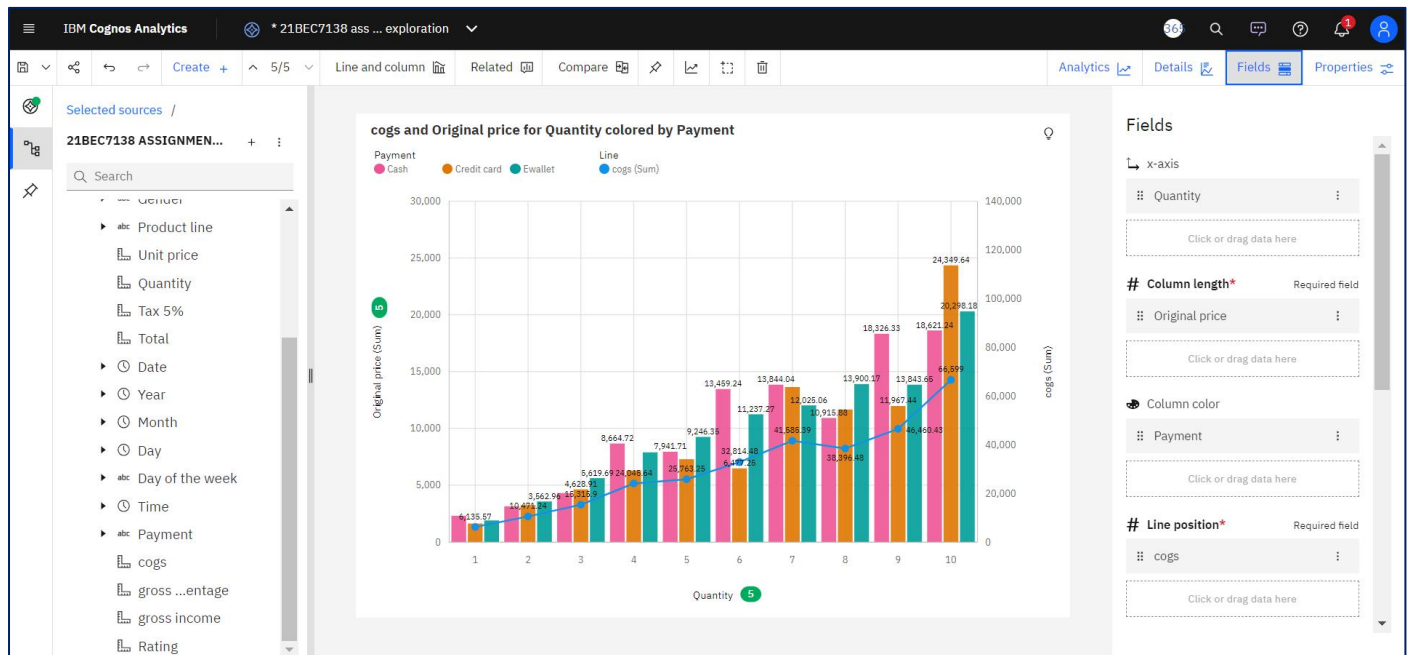
➤ 3) Line chart:



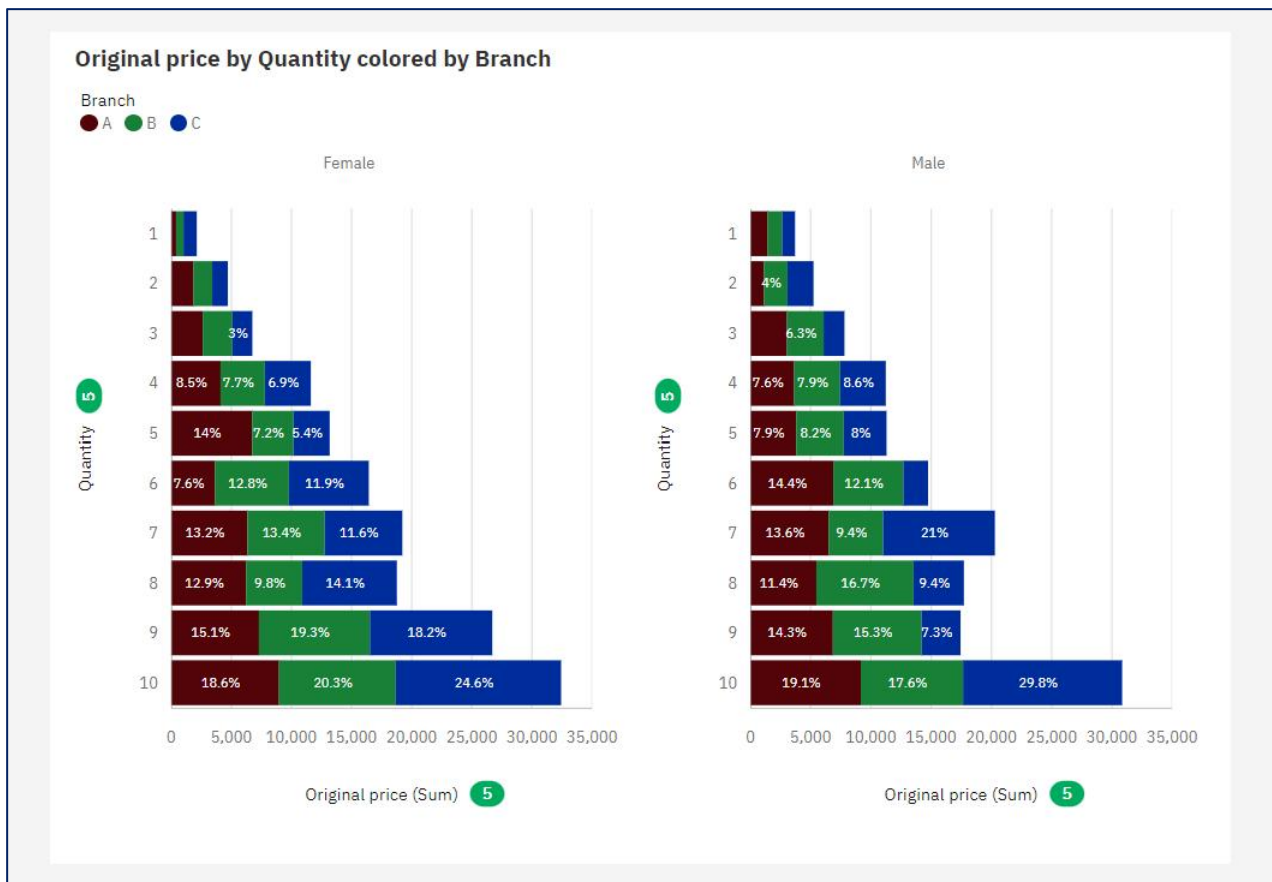


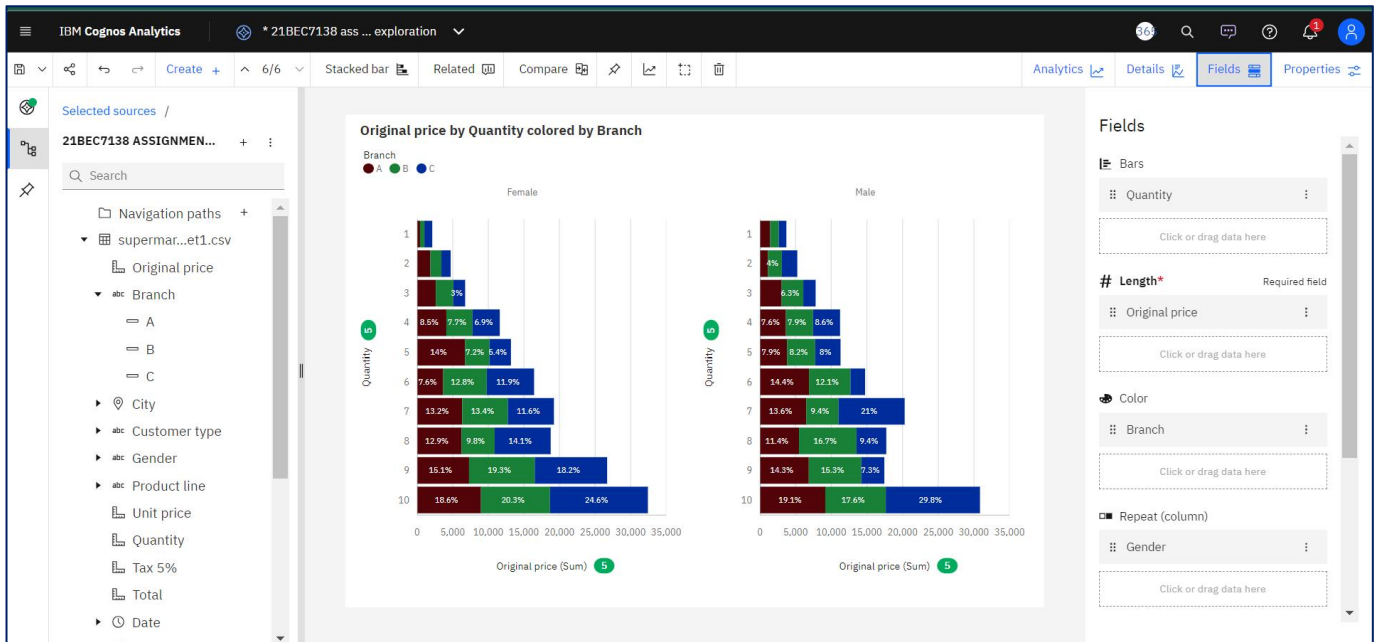
➤ 4) Line and Column chart:



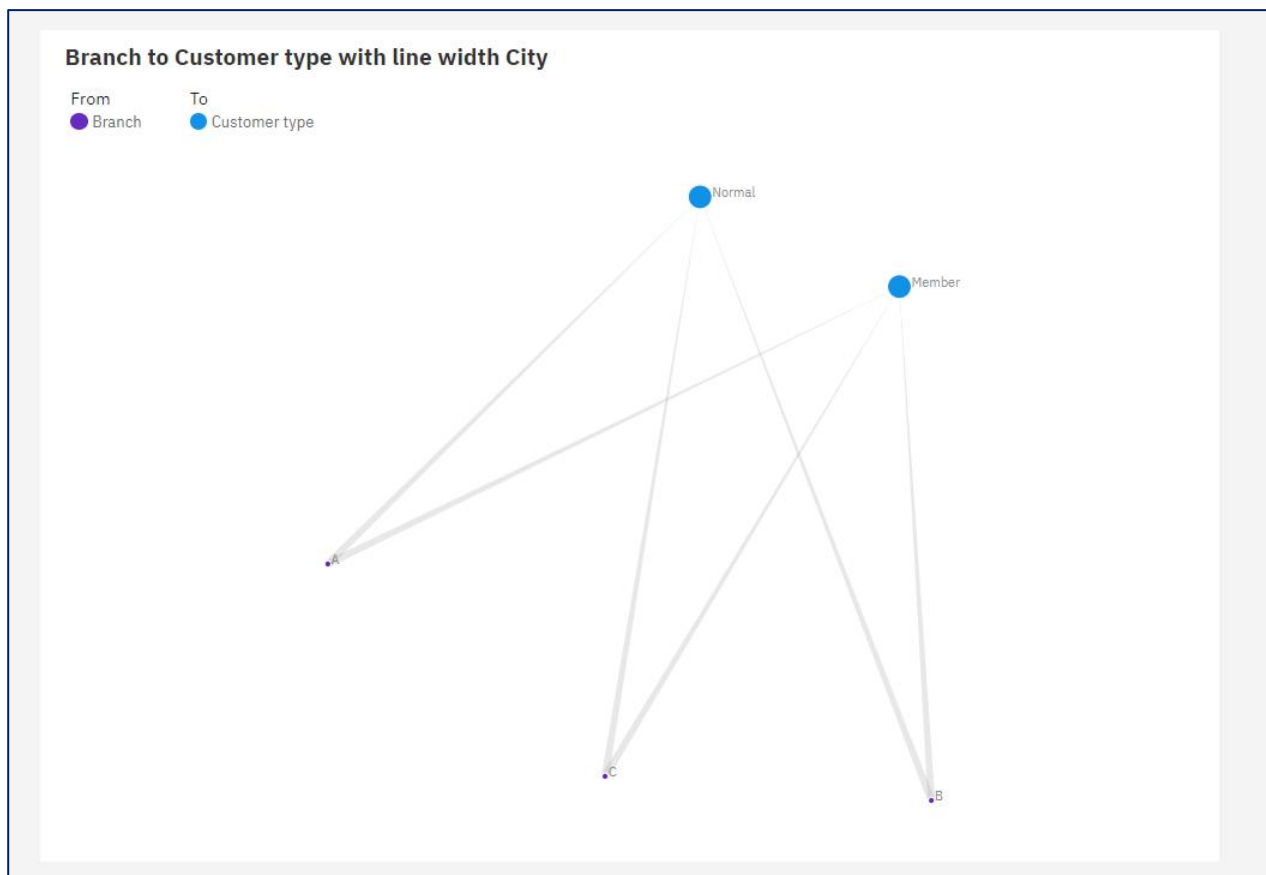


➤ 5) Stacked bar chart:





➤ 6) Networking graph:



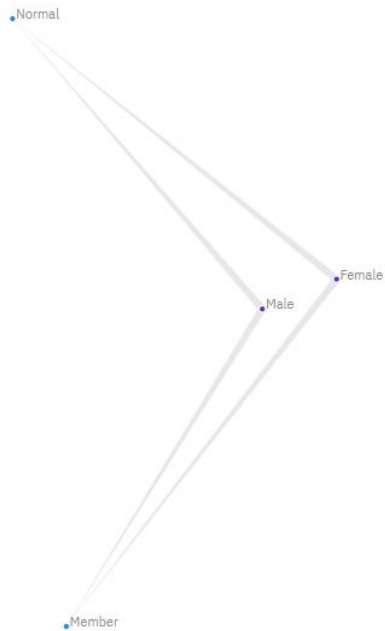
Gender to Customer type with line width Payment

From

Gender

To

Customer type



IBM Cognos Analytics

* 21BEC7138 ass ... exploration

Selected sources /

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Search

- Gender
- Product line
- Unit price
- Quantity
- Tax 5%
- Total
- Date
- Year
- Month
- Day
- Day of the week
- Time
- Payment
- cogs
- gross ...entage
- gross income
- Rating

Gender to Customer type with line width Payment

From Gender To Customer type

Normal

Member

Male

Female

Fields

From* Required field

Gender

Click or drag data here

To* Required field

Customer type

Click or drag data here

Line width

Payment

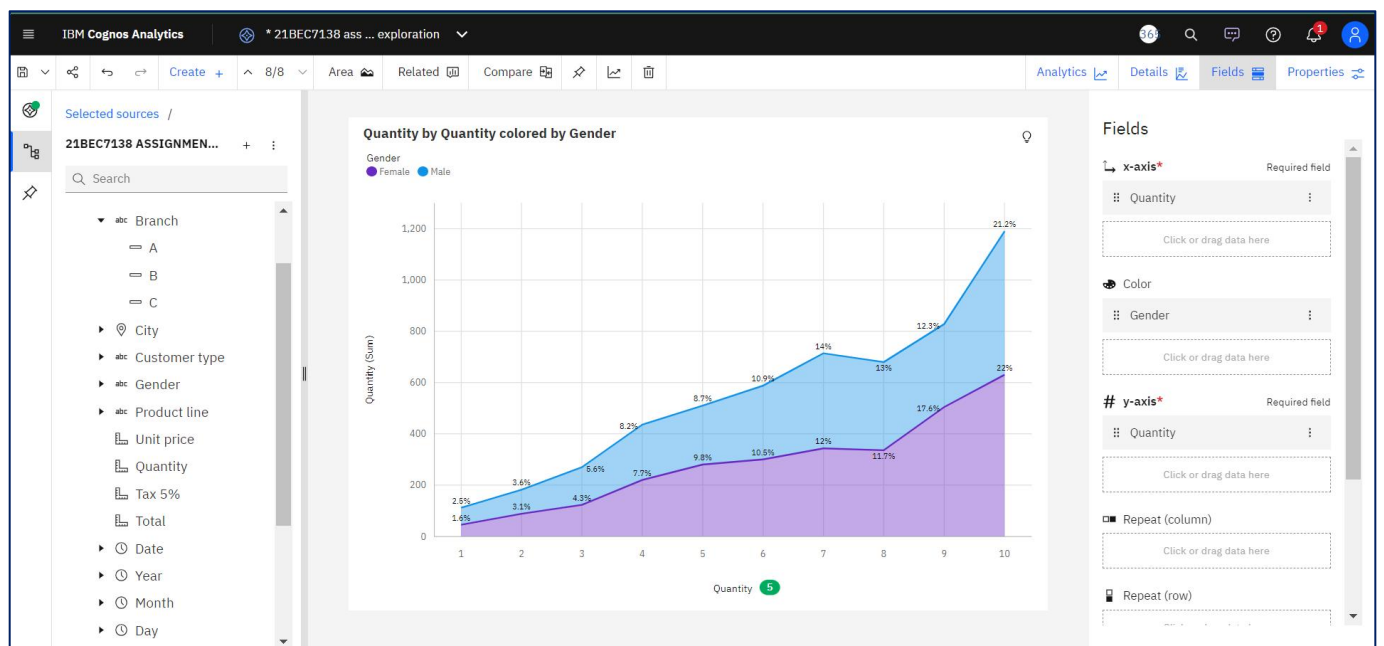
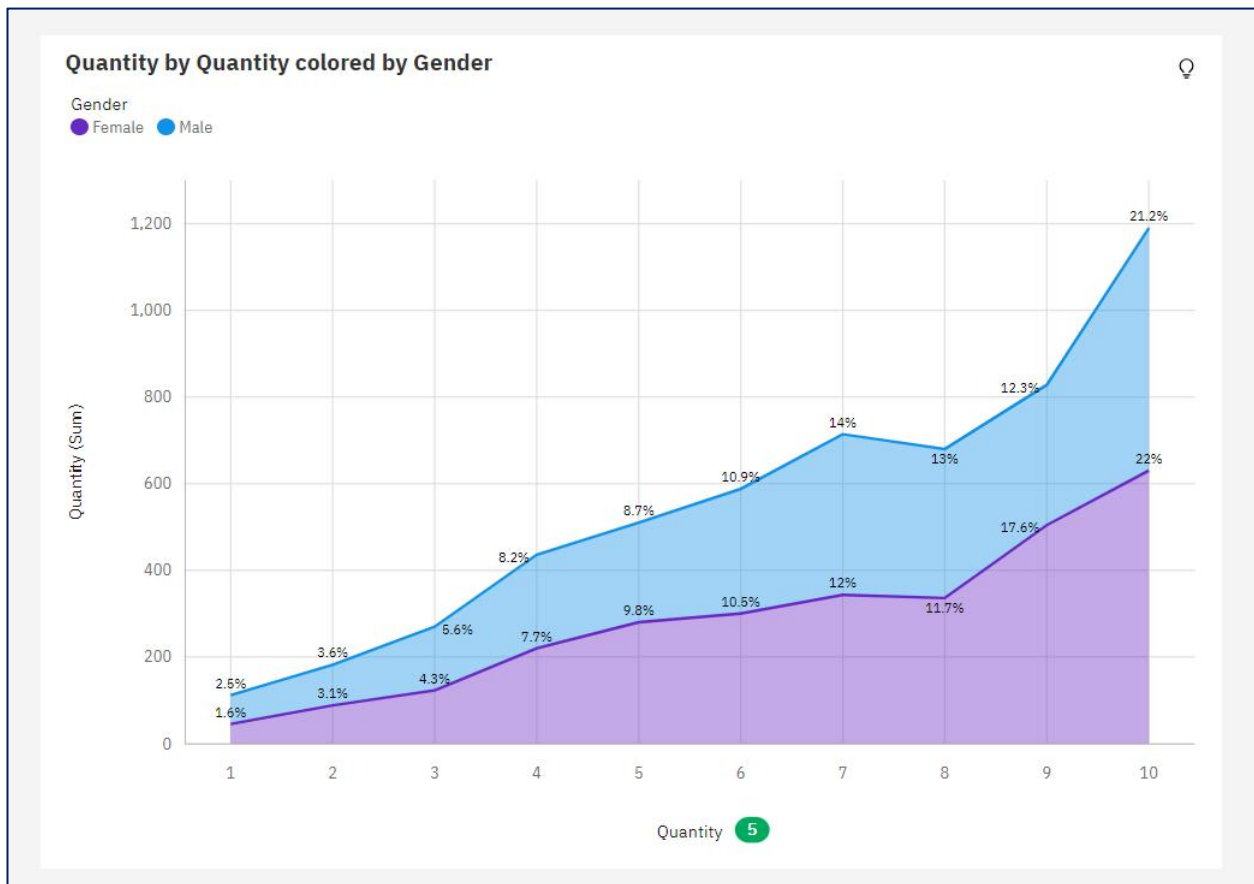
Repeat (column)

Click or drag data here

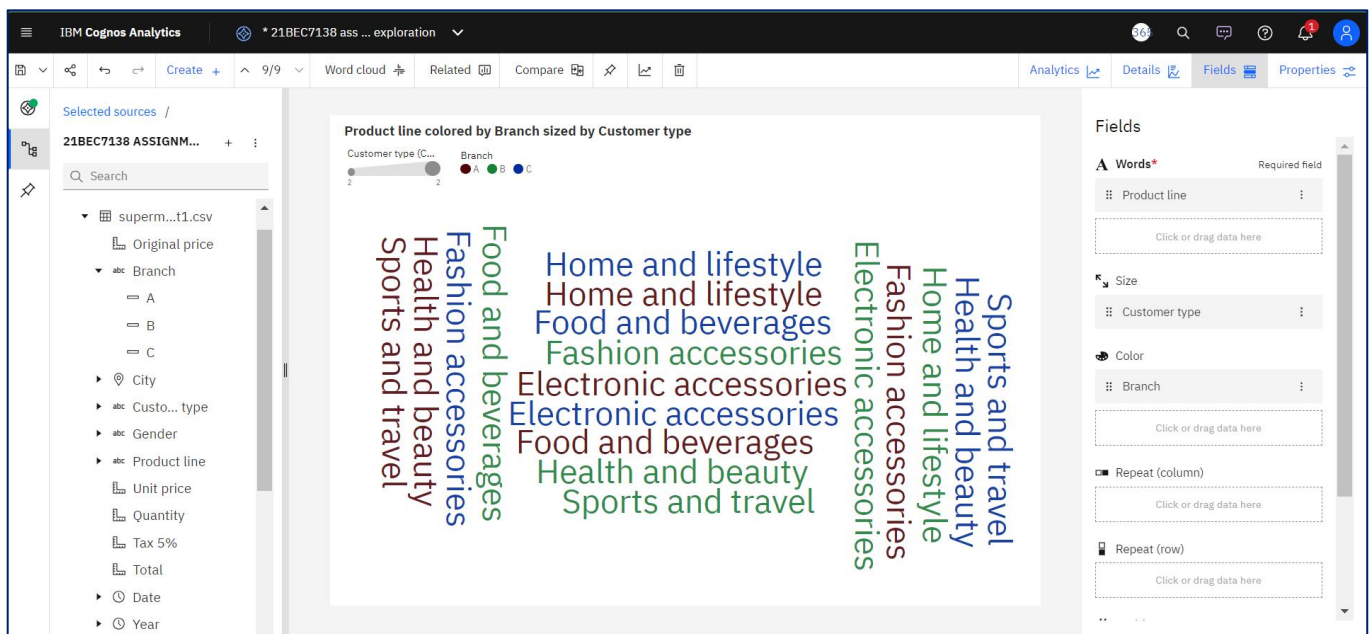
Repeat (row)

Click or drag data here

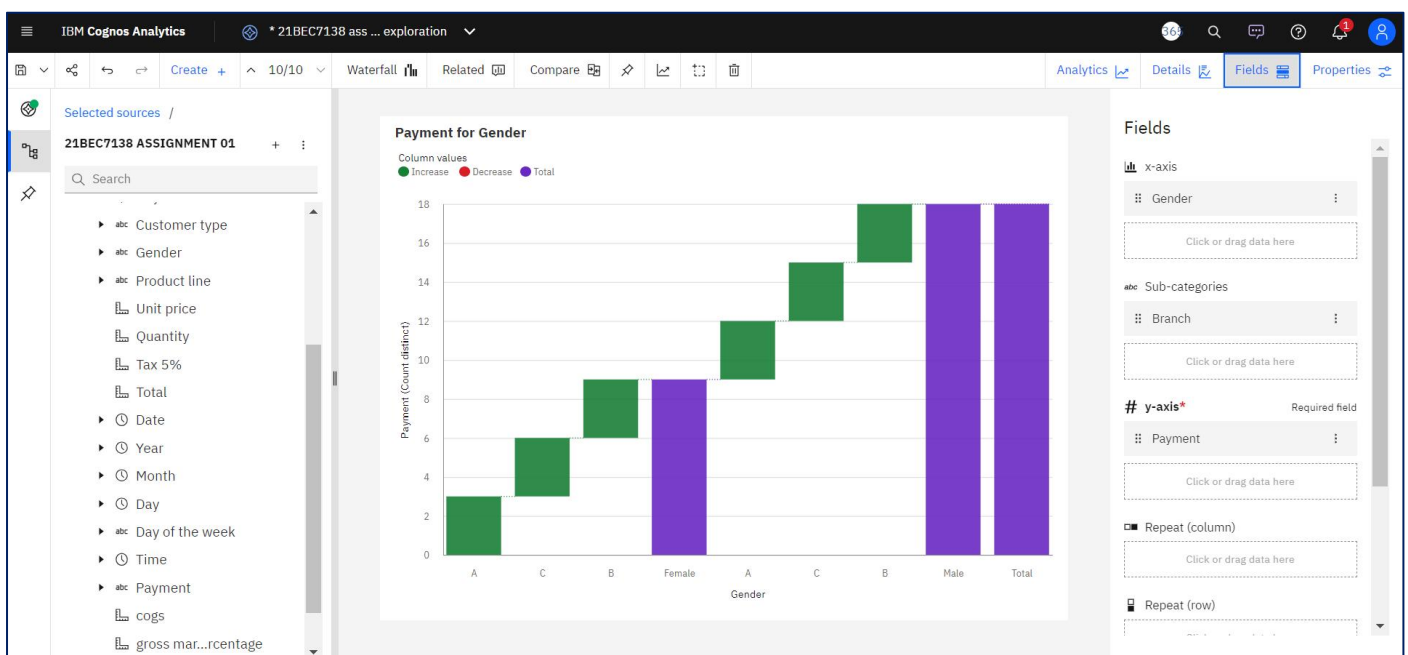
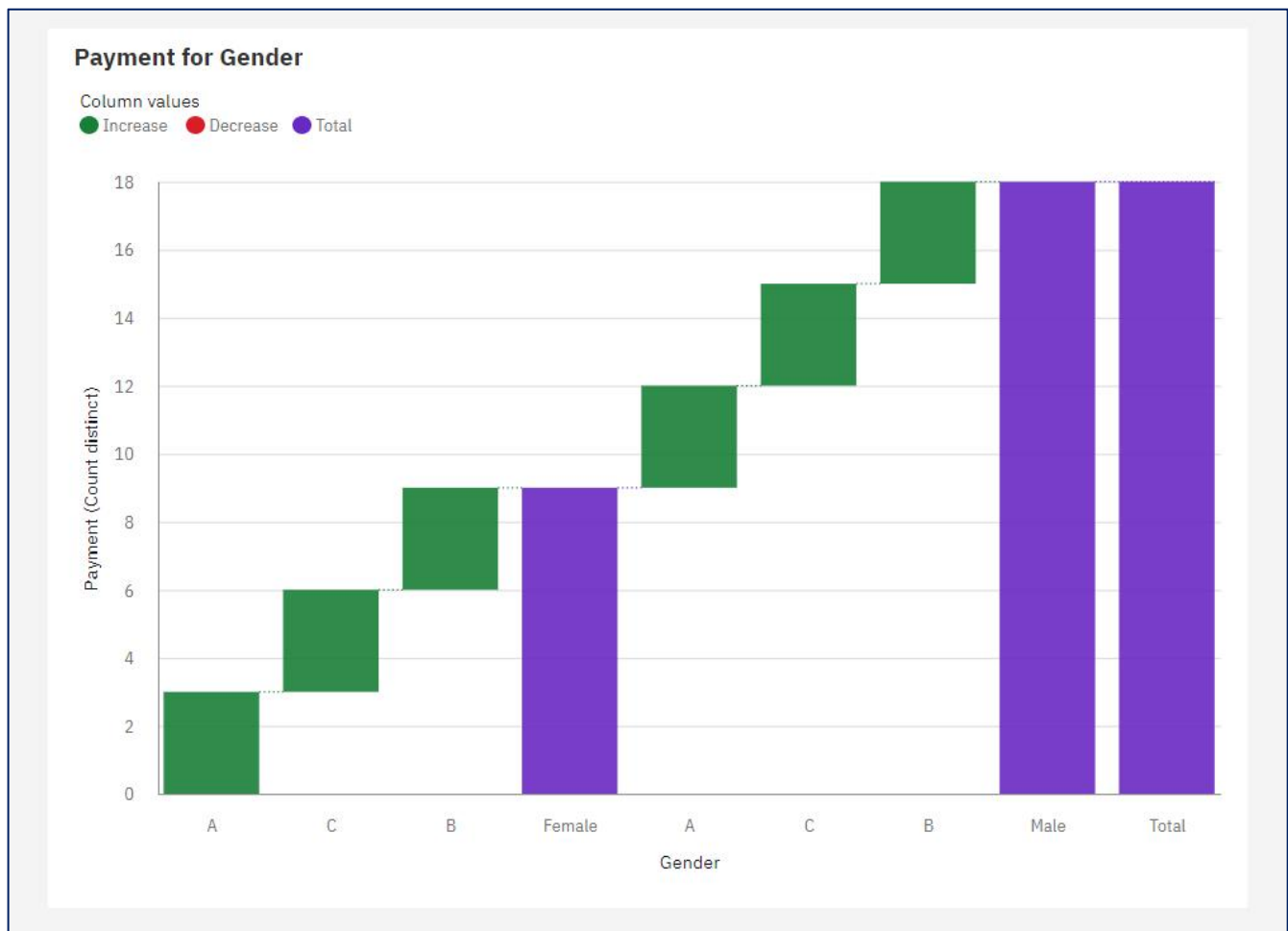
➤ 7) Area plot:



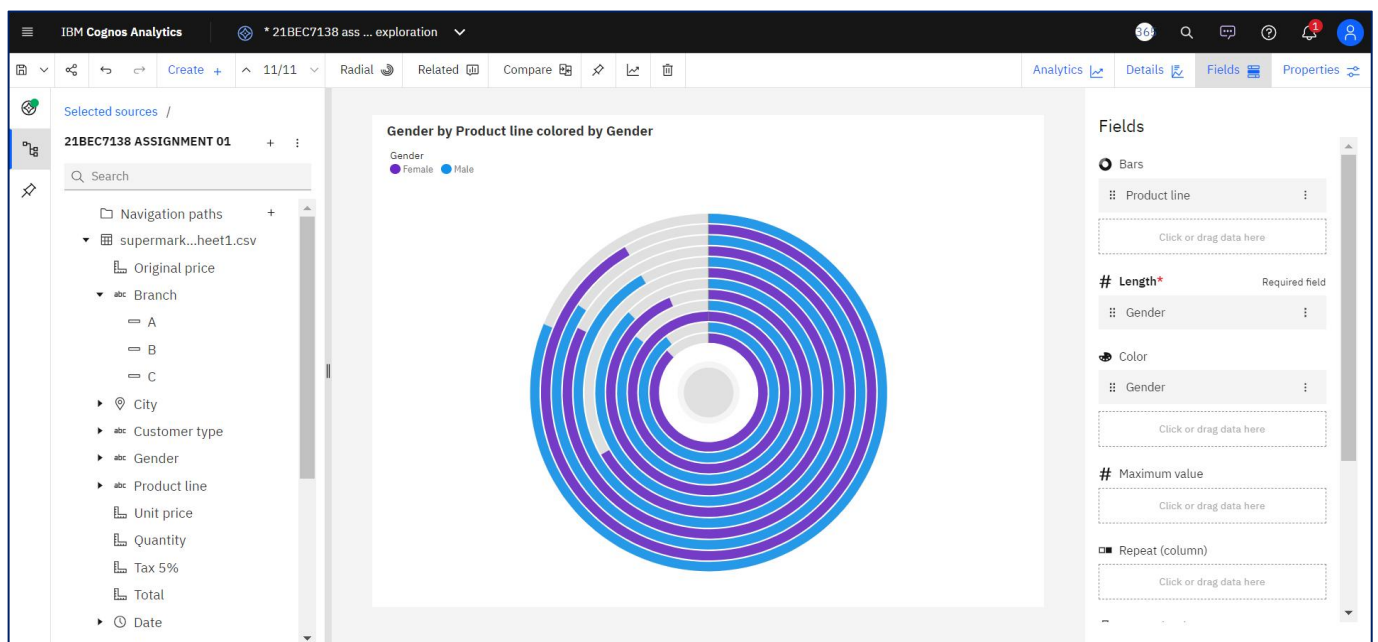
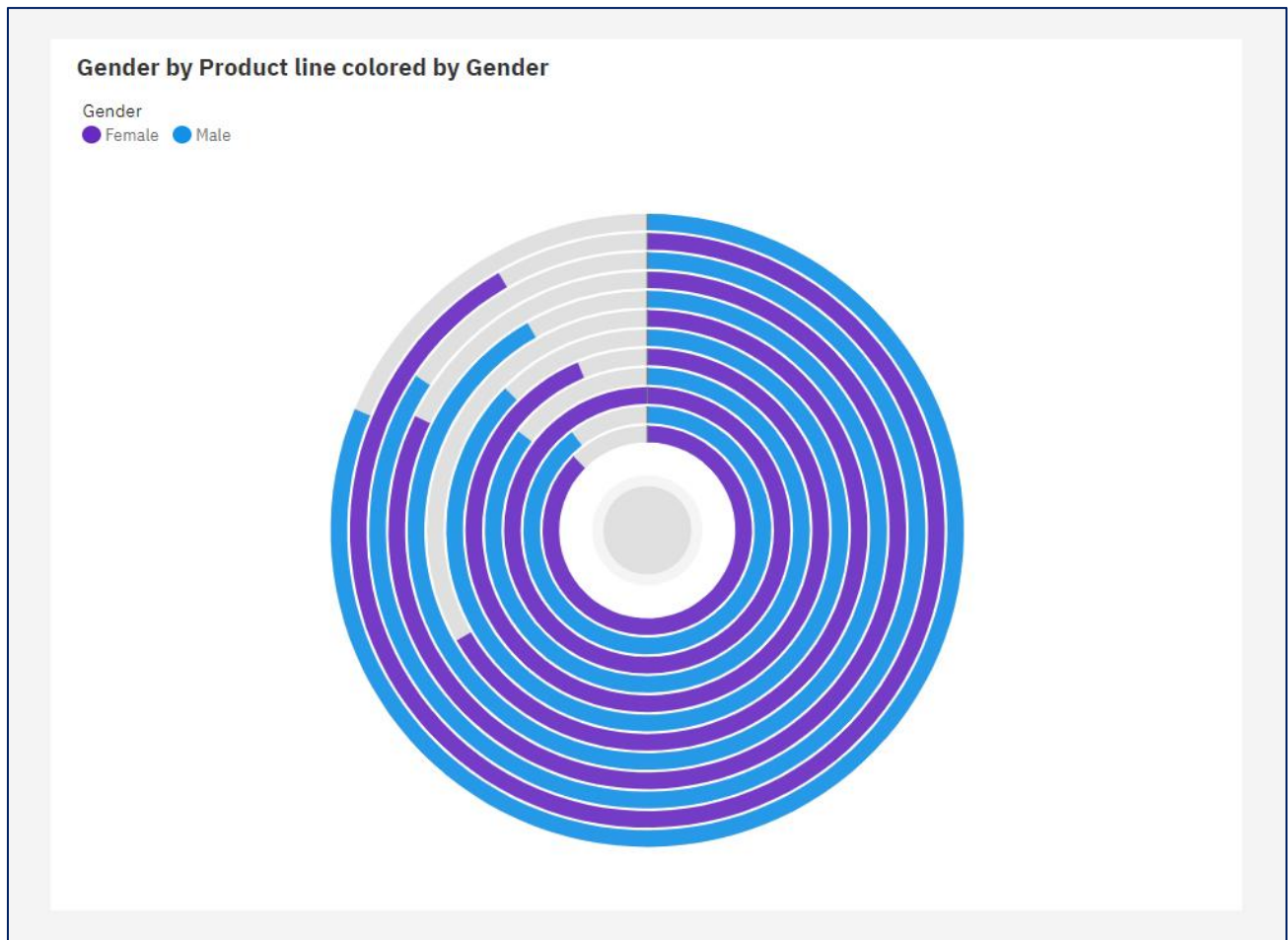
➤ 8) Word cloud:



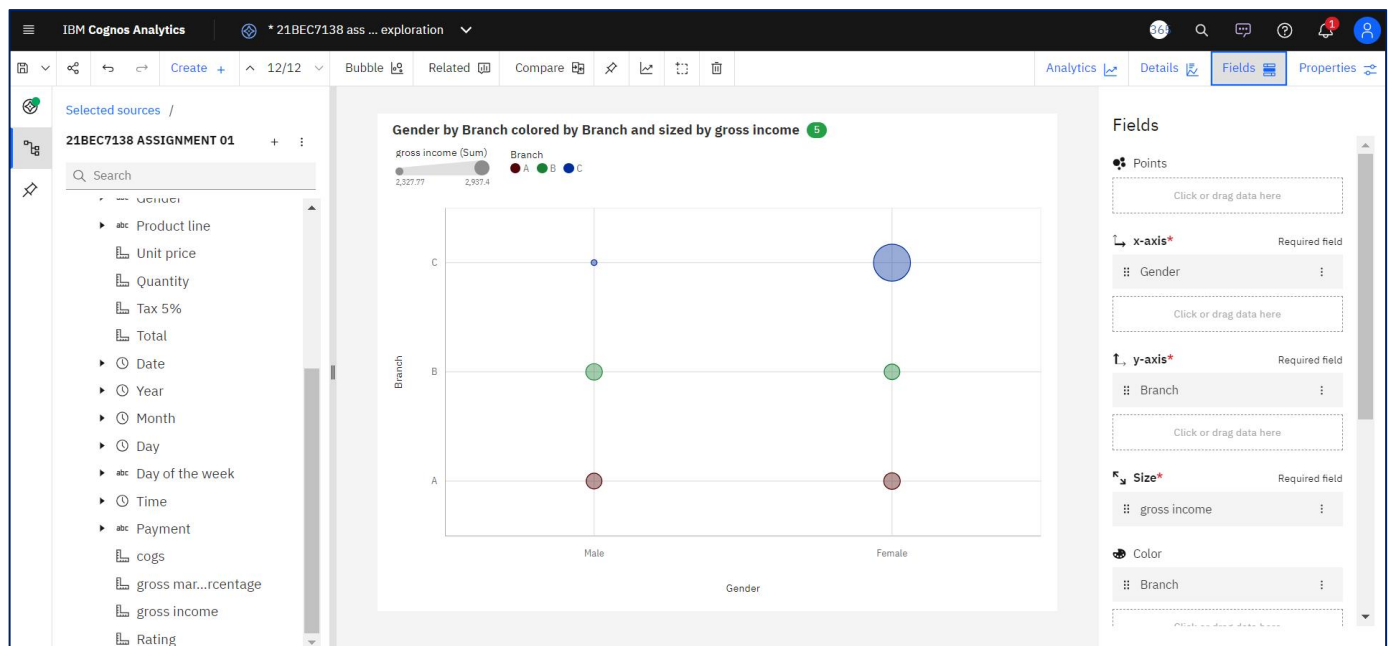
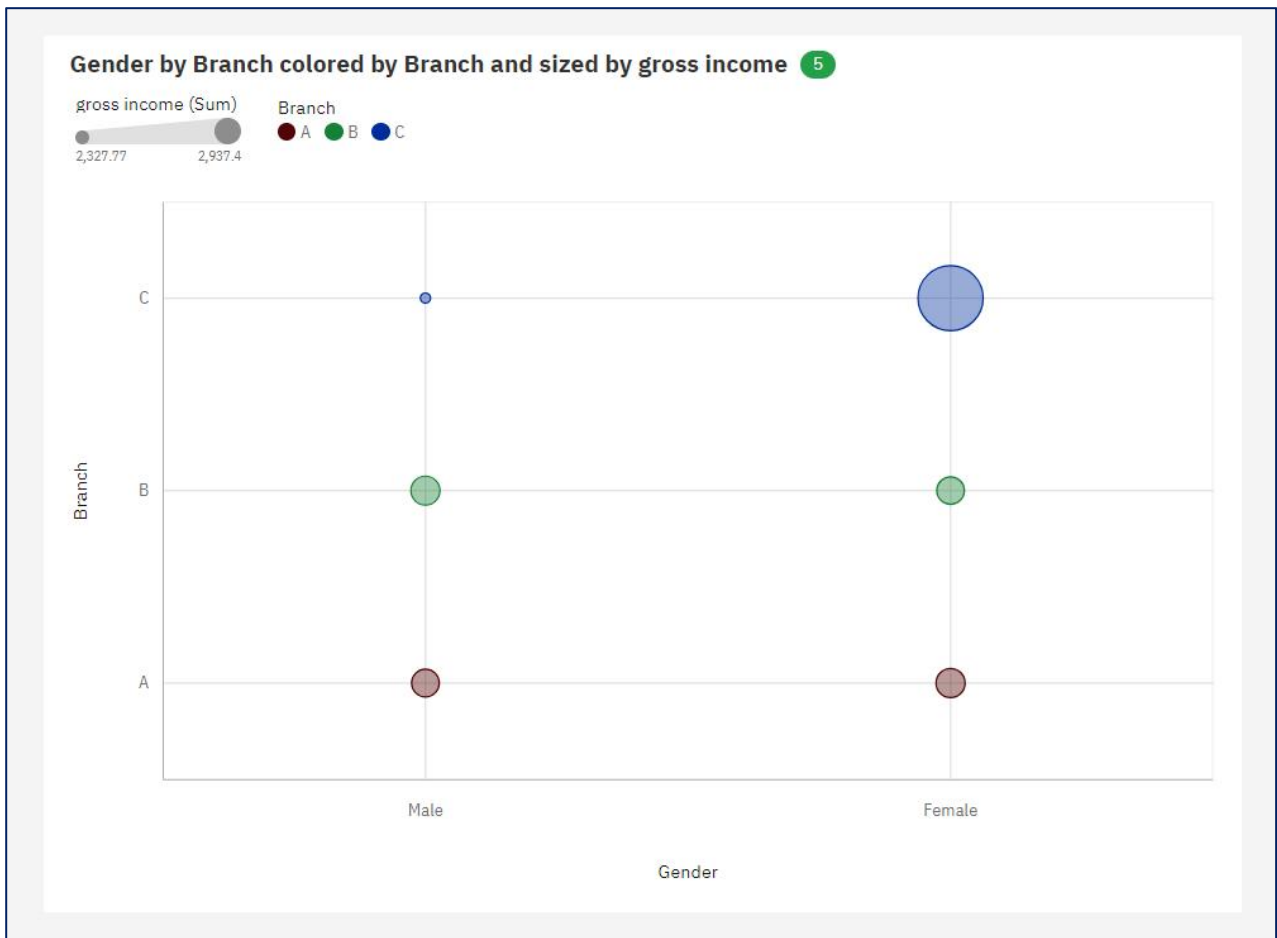
➤ 9) Water fall:



➤ 10) Radial chart:



➤ 11) Bubble chart:



➤ 12) Hierarchy Bubble chart:

