

SMARTINTERNZ EXTERNSHIP



DATA ANALYTICS WITH IBM COGNOS ANALYTICS

ASSIGNMENT 1

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DATASET MODIFICATIONS

For the given dataset, before beginning with the visualizations, I have modified the table by deleting some attributes and modifying the others. Given below are the details for the same :

1. Deletion

- Tax* : Since the tax is 5% for all the products, I have removed the tax attribute and added the final tax value in the total attribute and renamed it Total (inc. 5% Tax).
- City* : Additionally, since each of the 3 branches directed to only 3 cities each, I have removed this attribute in order to reduce redundancy.

2. Modification

- Date* : The date attribute has been divided into Months and Day of the week for easier visualization for weekly and monthly data.

VISUALIZATIONS

1. Bar Chart for Total income by Month for different Payment Types

Bars - Month

Length - Total (inc. 5% Tax)

Color - Payment

Total (inc. 5% Tax) by Month colored by Payment

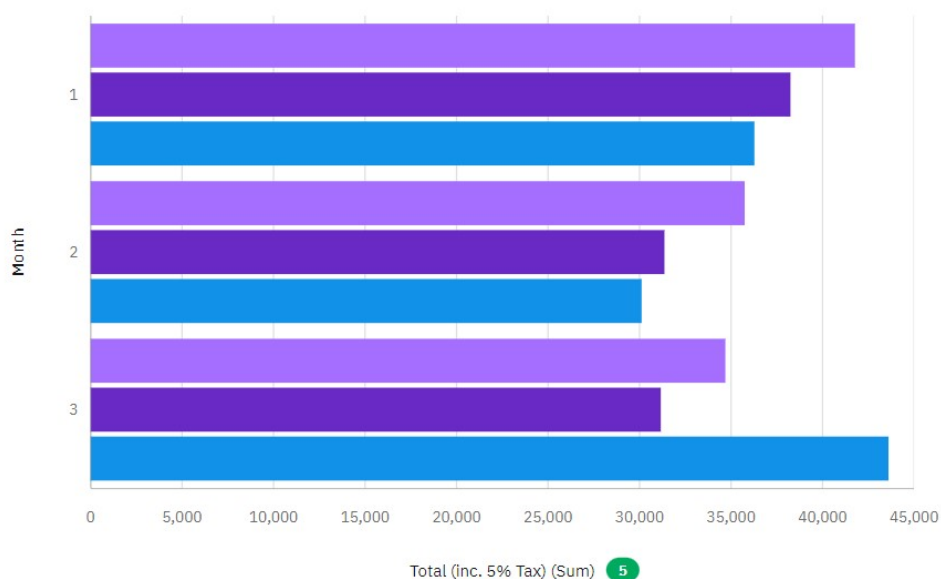


Payment

● Cash

● Credit card

● Ewallet



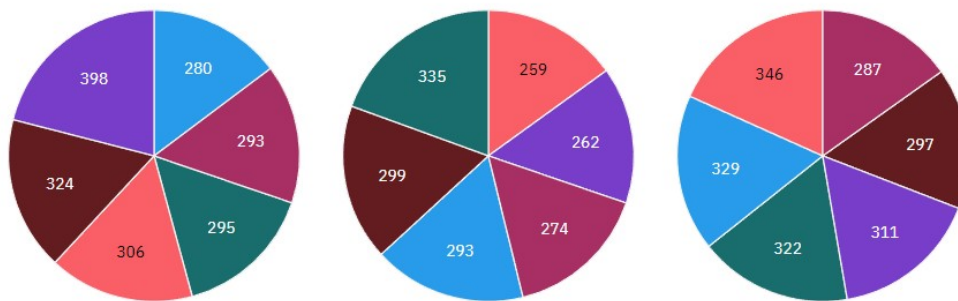
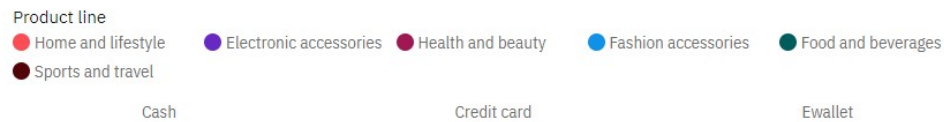
2. Pie Chart for the amount of products sold per product type for different payment types

Segments - Product Line

Size - Quantity

Repeat (column) - Payment

Quantity by Product line 4



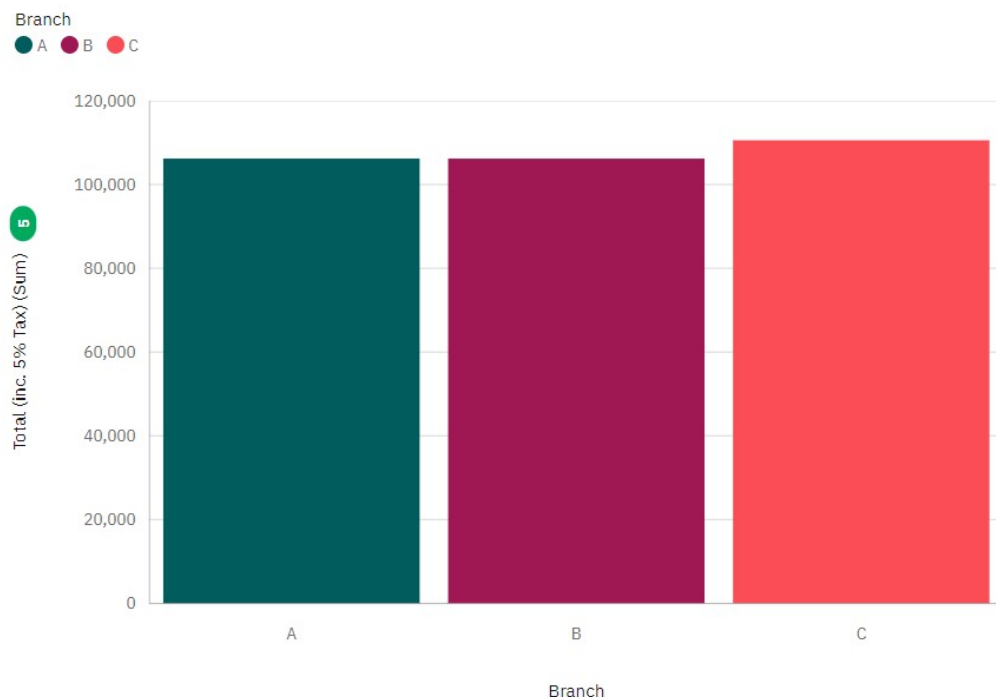
3. Column Chart for each branch's total revenue

Bars - Branch

Length - Total (inc. 5% Tax)

Color - Branch

Total (inc. 5% Tax) by Branch colored by Branch



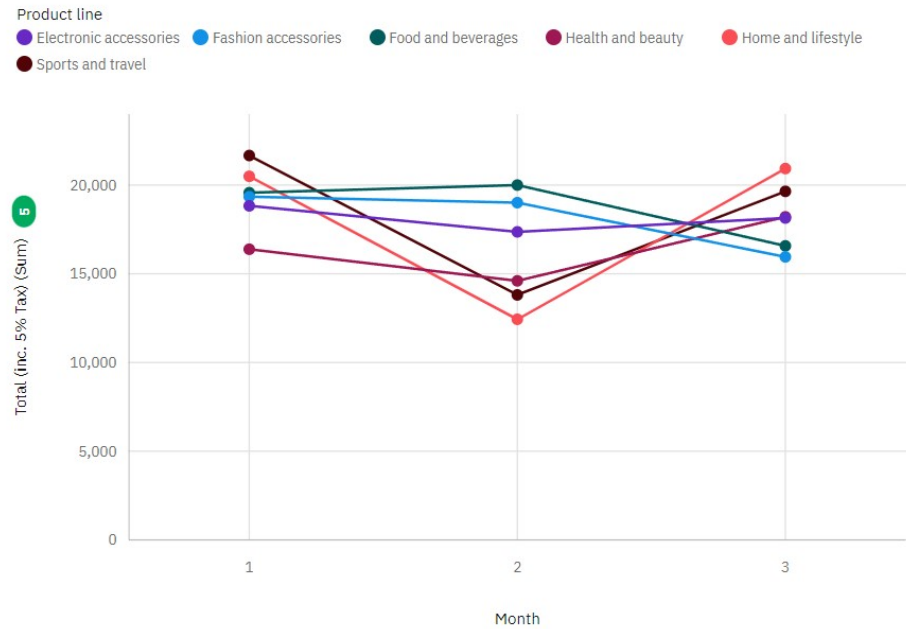
4. Line Chart for Total (inc. 5% Tax) for each Month segregated by Product line

x axis - Month

y axis - Total (inc. 5% Tax)

Color - Product Line

Total (inc. 5% Tax) by Month colored by Product line



5. Area Chart for Gross Income by all Payment Types

x axis - Payment

y axis - Gross Income

Color - Payment

gross income by Payment colored by Payment



6. Column Chart for Quantity of items sold segregated by Product line

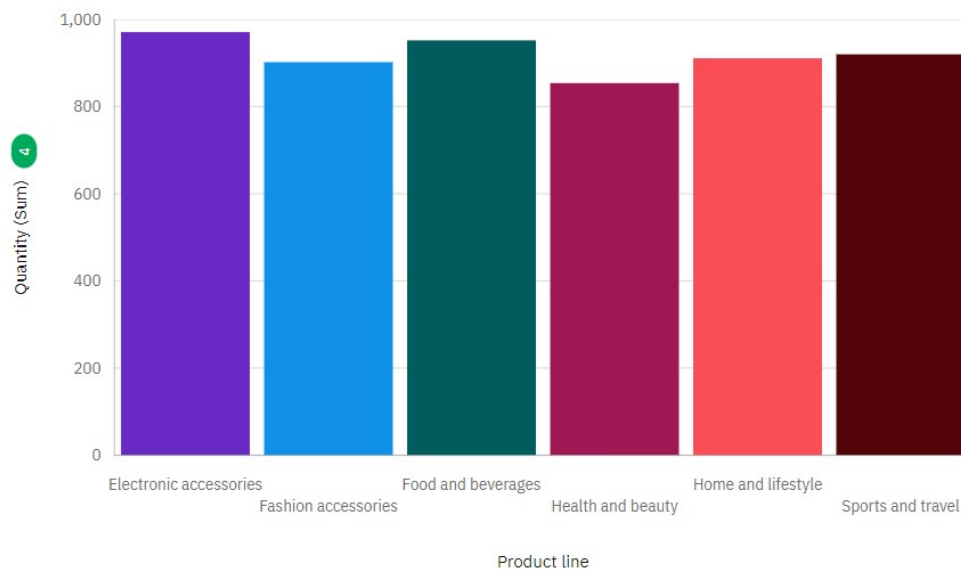
Bars - Product Line

Length - Quantity

Color - Product Line

Quantity by Product line colored by Product line

Product line
Electronic accessories Fashion accessories Food and beverages Health and beauty Home and lifestyle Sports and travel



7. Line Chart for Total (inc. 5% Tax) by Month segregated by Product line

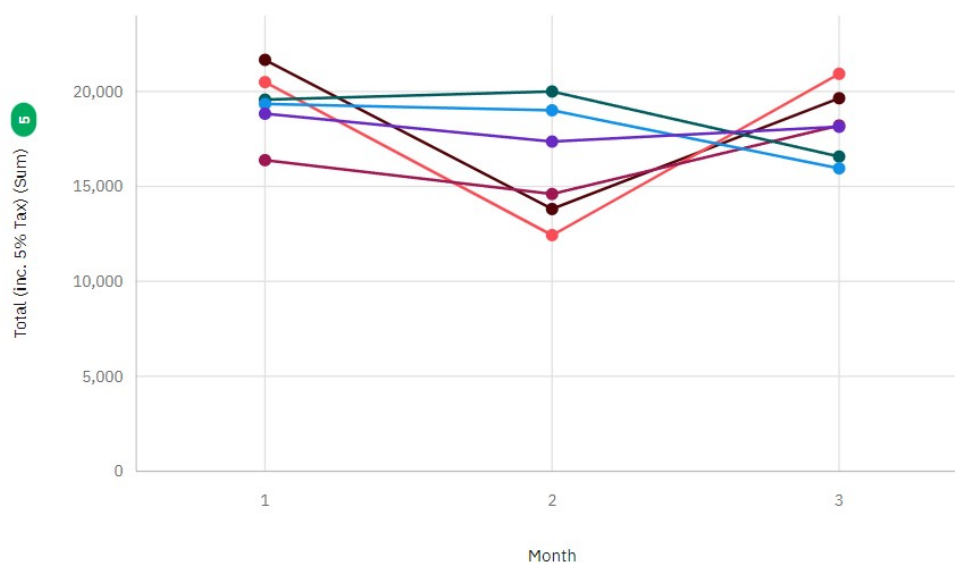
x axis - Month

y axis - Total (inc. 5% Tax)

Color - Product Line

Total (inc. 5% Tax) by Month colored by Product line

Product line
Electronic accessories Fashion accessories Food and beverages Health and beauty Home and lifestyle Sports and travel



8. Hierarchy Bubble Chart for all Product lines sized by their resp. gross income

Bubbles - Product Line

Size - Gross Income

Color - Product Line

Product line hierarchy colored by Product line and sized by gross income 5

gross income (Sum)
2,342.56 2,673.56
Product line



9. Scatter Plot for cogs by Gross Income

Point - cogs

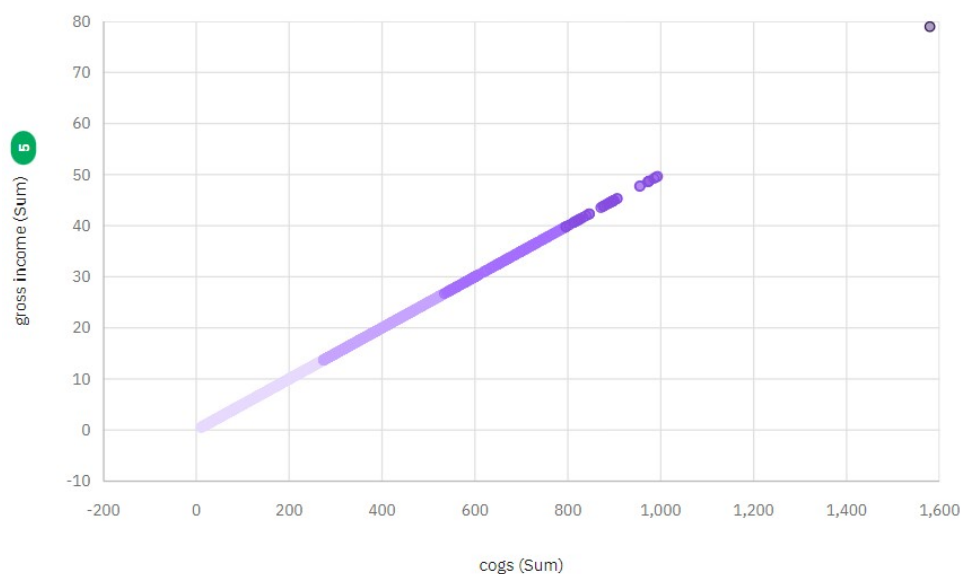
x axis - cogs

y axis - Gross Income

Color - cogs

cogs by gross income with points for cogs 5

cogs (Sum)
10.17 1,579.2



10. Pie Chart for Gender wise purchase of different products

Segments - Gender

Size - Gender

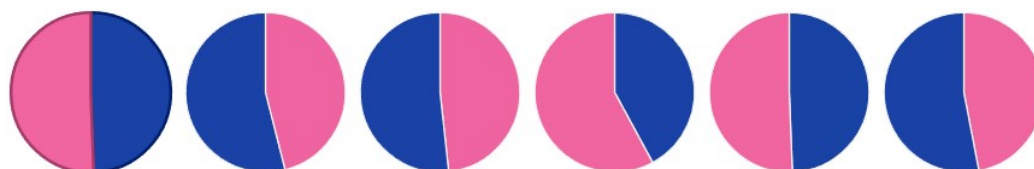
Repeat (column) - Product Line

Gender by Gender

Gender

Female Male

Electronic accessories Fashion accessories Food and beverages Health and beauty Home and lifestyle Sports and travel



11. Bubble Chart for Gross Income and Quantity segregated by Product line

Points - Product Line

x axis - Gross Income

y axis - Quantity

Size - Product Line

gross income and Quantity with Product line and Product line for Product line

Product line (Count)

152 178

Product line

Electronic accessories

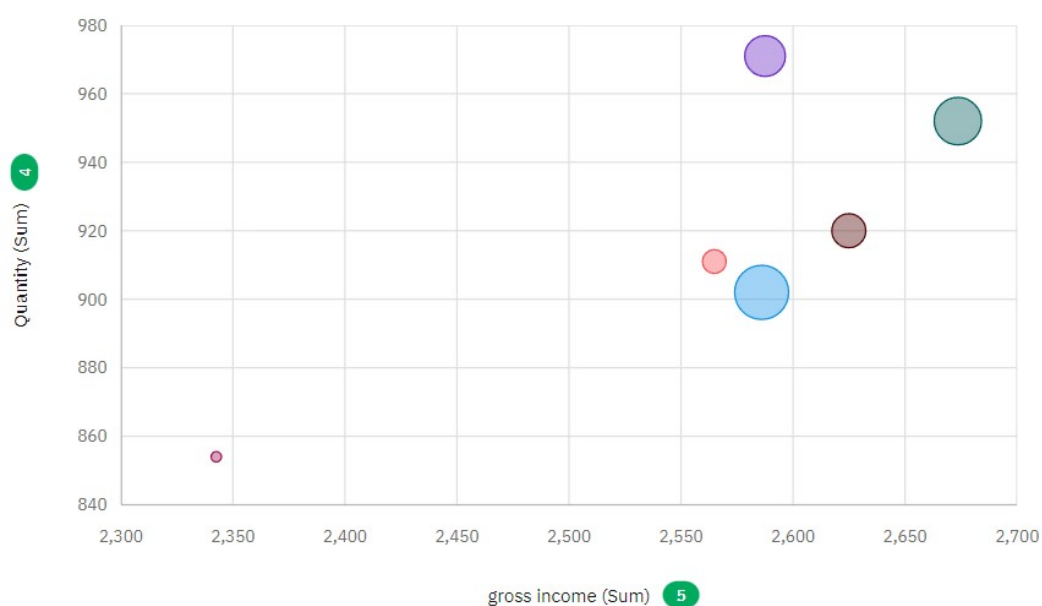
Fashion accessories

Food and beverages

Health and beauty

Home and lifestyle

Sports and travel



12. Heat Map for Gross Income by Month and Day of the week for each product

Rows - Month

Columns - Day of the week

Heat - Gross Income

Repeat (row) - Product Line

gross income by Month and Day of the week 5

gross income (Sum)
19.7 287.94



13. Scatter Plot for comparing cogs and Gross Income for all the Products

x axis - cogs

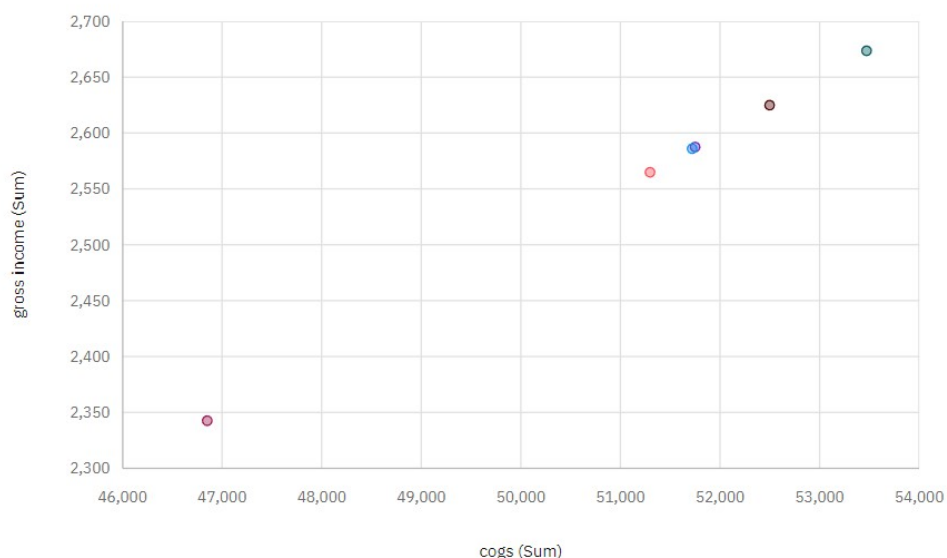
y axis - Gross Income

Color - Product Line

cogs by gross income colored by Product line

Product line

Electronic accessories Fashion accessories Food and beverages Health and beauty Home and lifestyle Sports and travel



14. Word Cloud for the Ratings per Product

Words - Product Line

Color - Rating

Product line colored by Rating

