Getting started with data visualization in Excel

DATA VISUALIZATION IN EXCEL
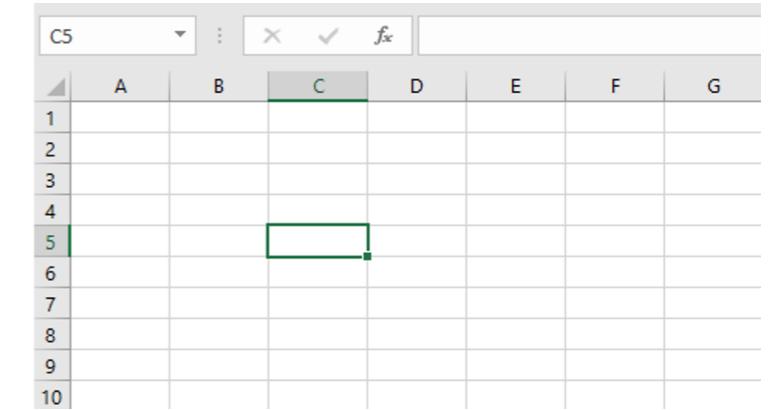
Agata Bak-Geerinck
Senior Data Analyst, Telenet

Excel - the world's most versatile data analysis tool

- World's favorite data analysis tool[1].
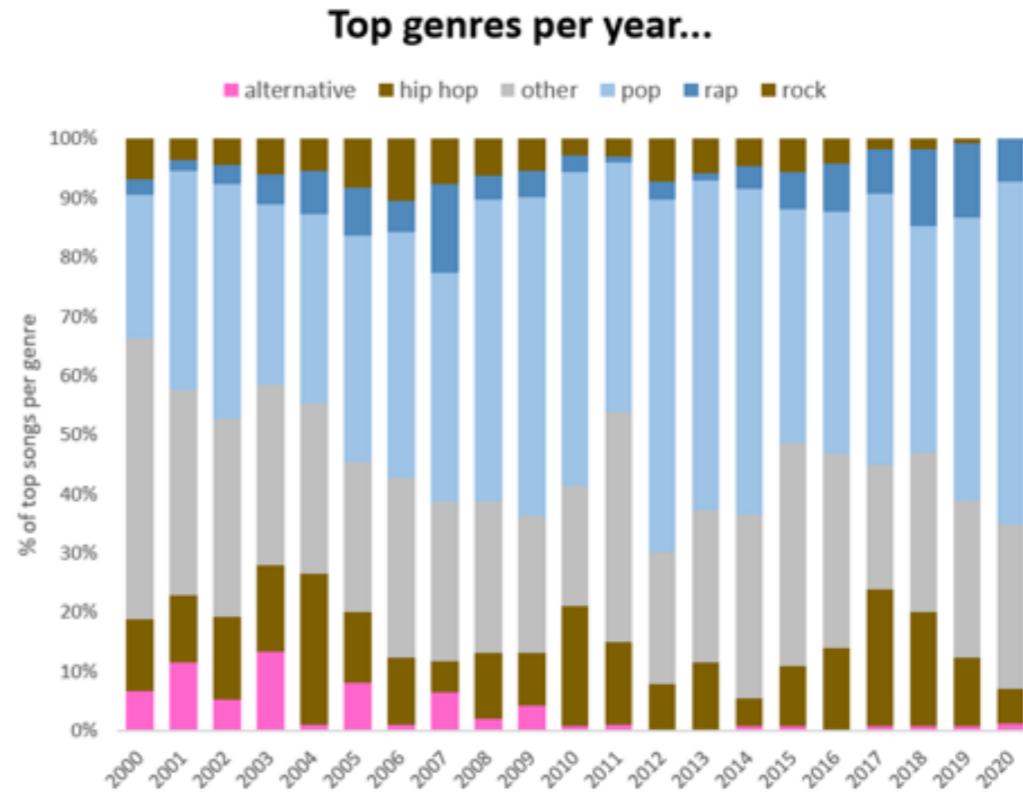
- Flexible and versatile thanks to cells.

- Can **also** visualize data.
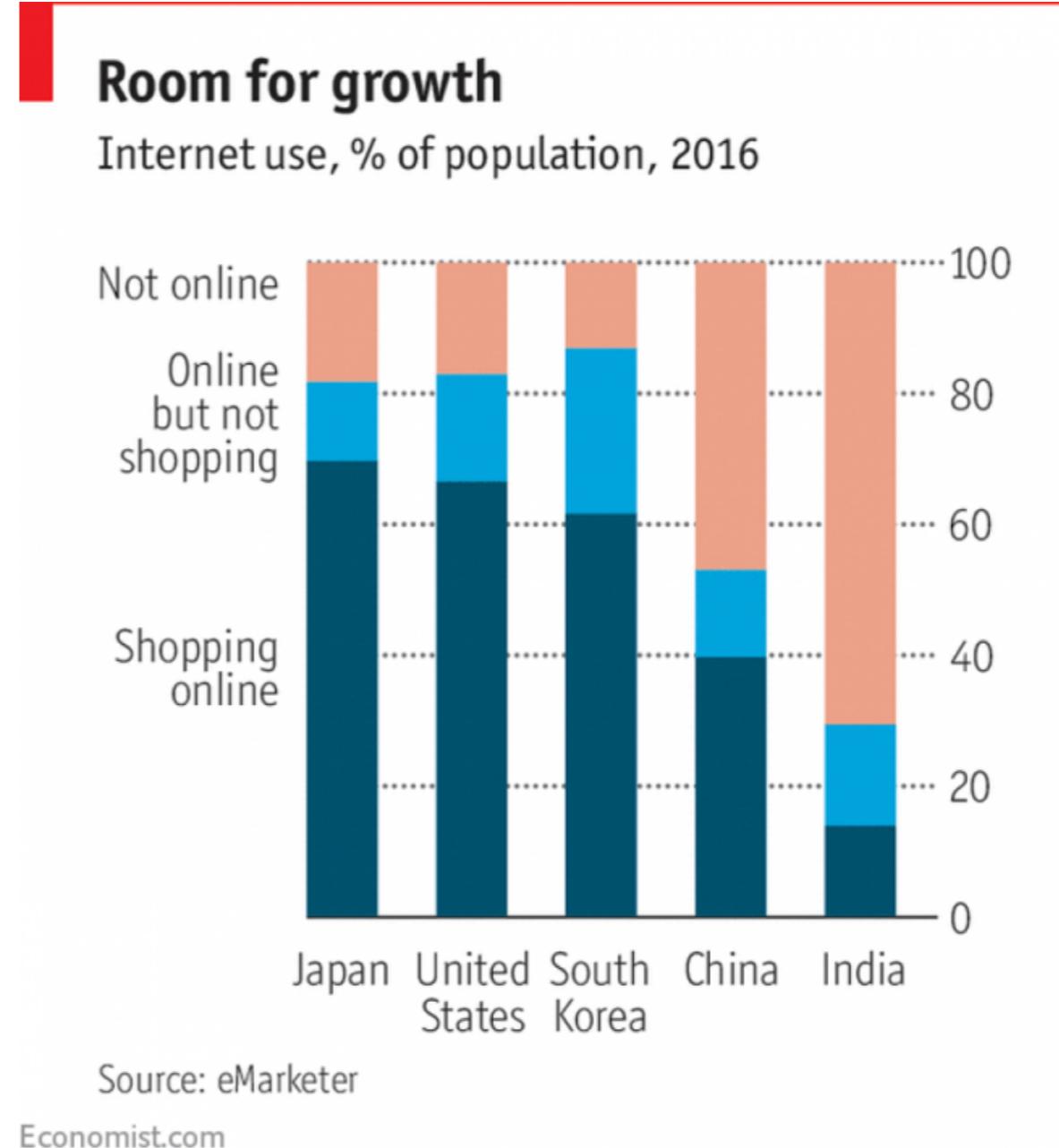
- First step towards other data visualization tools (Tableau / Power BI)

[1] https://www.computerworld.com/article/3315737/use-microsoft-excel-to-learn-about-data-analytics.html

What is Data Visualization?

- A graphical representation of information

- Communication of (complex) data to wide audiences

- Selection of most suited charts and elements of visual design

Room for growth

Internet use, % of population, 2016

Not online

Online but not shopping

Shopping online

Japan   United States   South Korea   China   India

Source: eMarketer

Economist.com

The power of visualizing your data
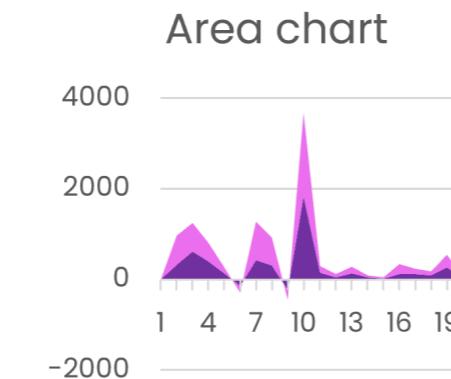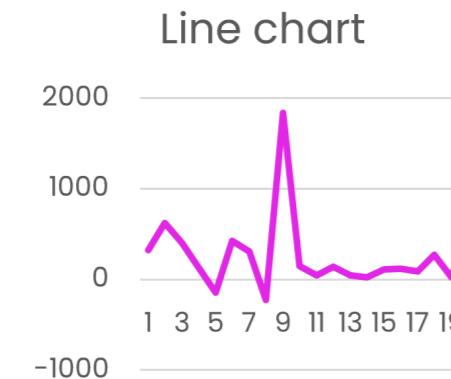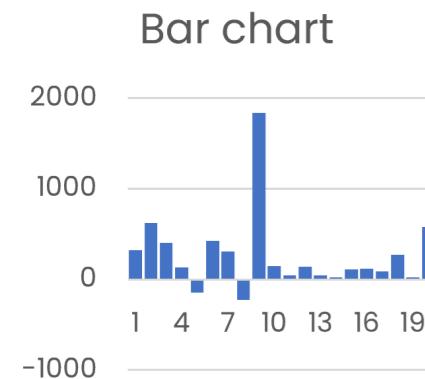
90 %[1] of the information absorbed by the brain is **VISUAL**

[1] https://elearningindustry.com/visual-learning-6-reasons-visuals-powerful-aspect-elearning
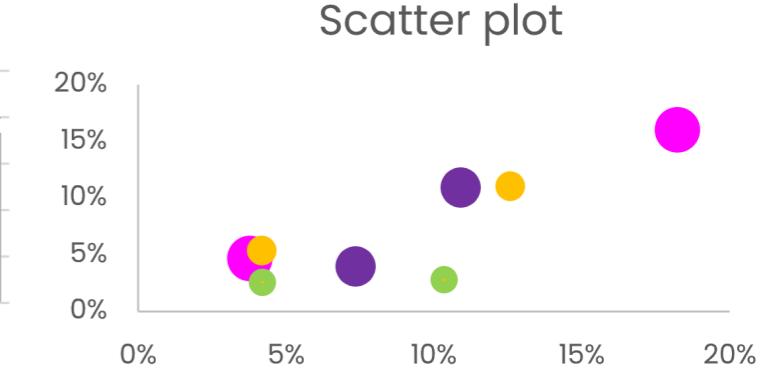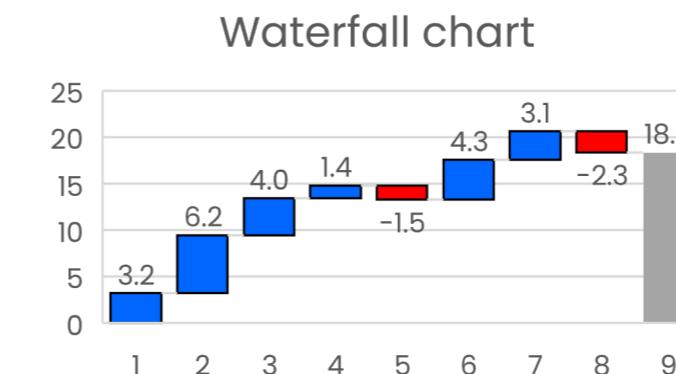
What will we cover in this course?

Basic charts

Bar chart

Line chart

Area chart

## Advanced charts

Waterfall chart

Scatter plot
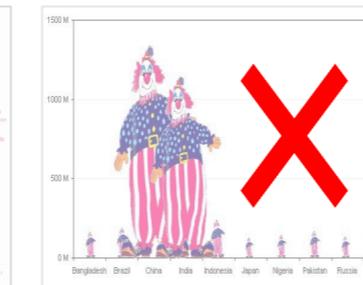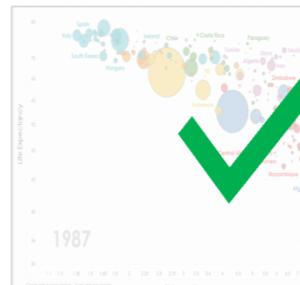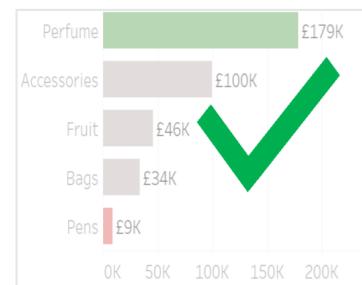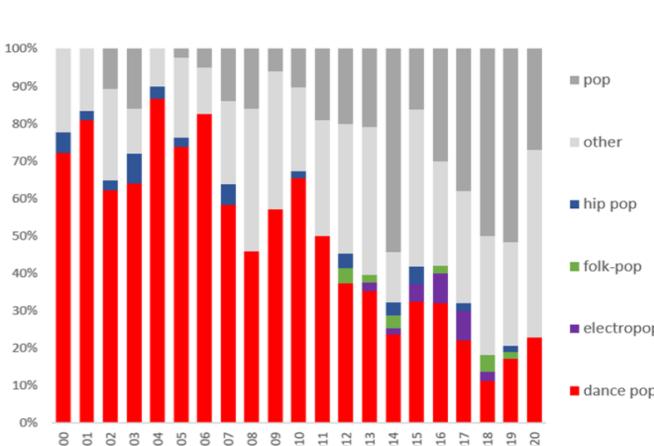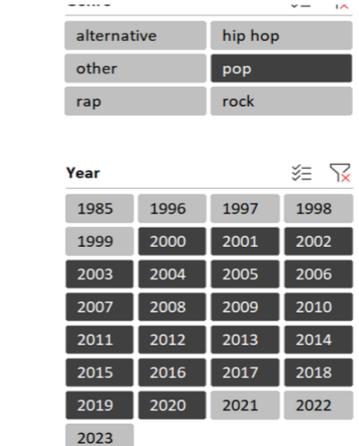
## Best practices of data viz
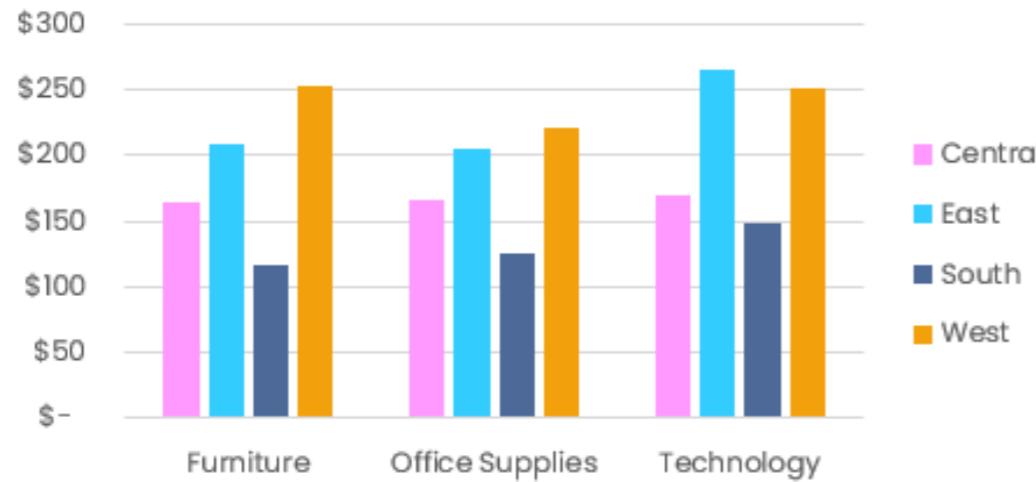
Pivot charts and dashboards

Analysing Spotify Top Song Genres 2000-2023
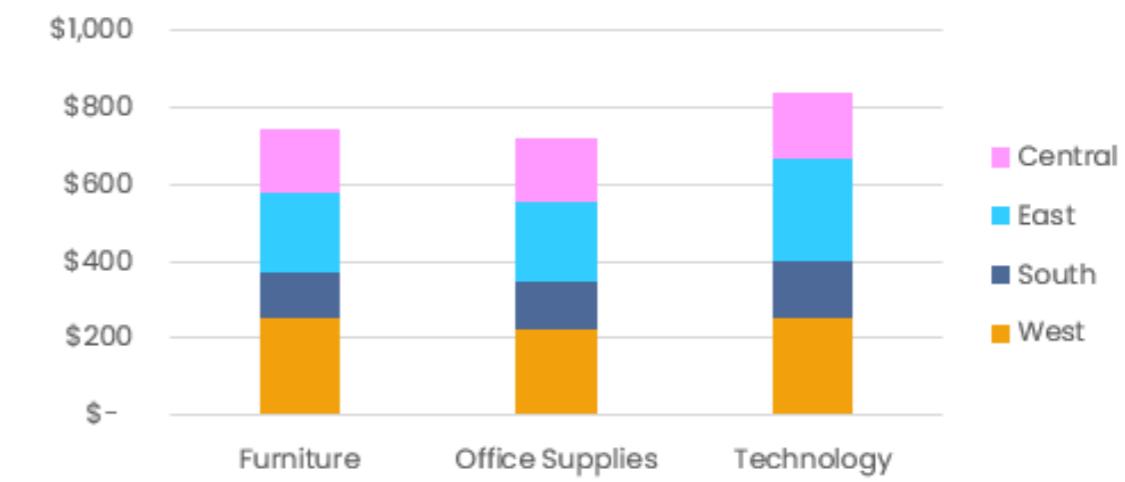
Bar and column charts
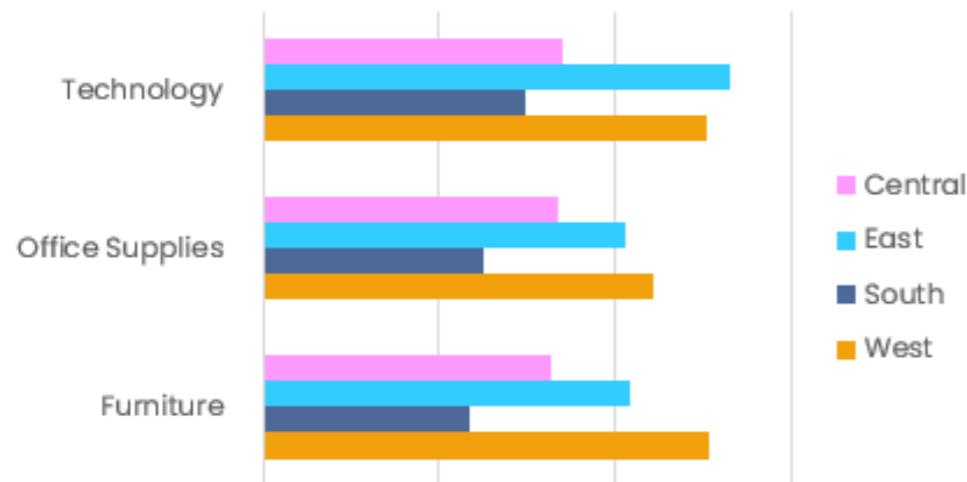
Column clustered
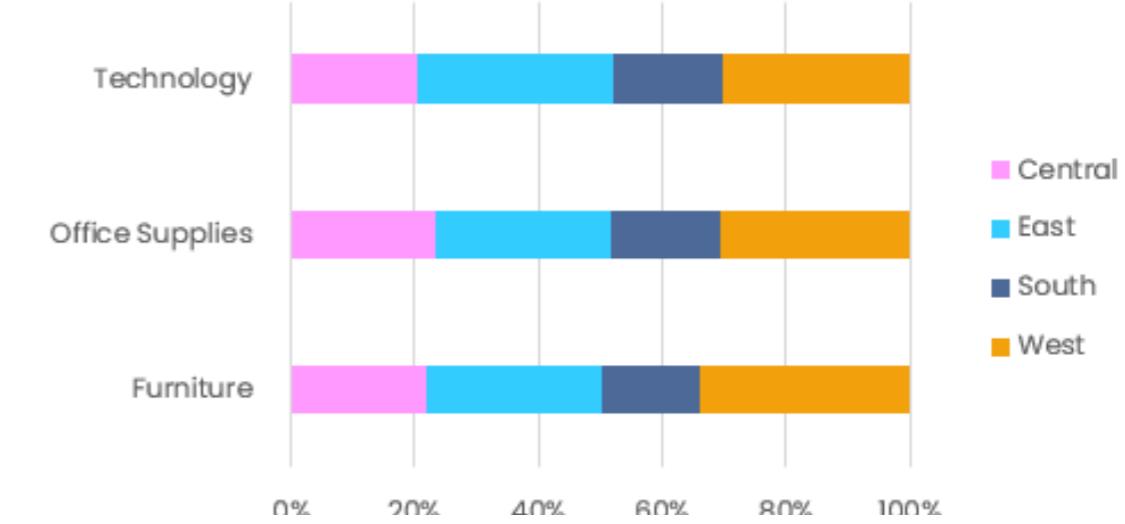
Column stacked

Bar clustered
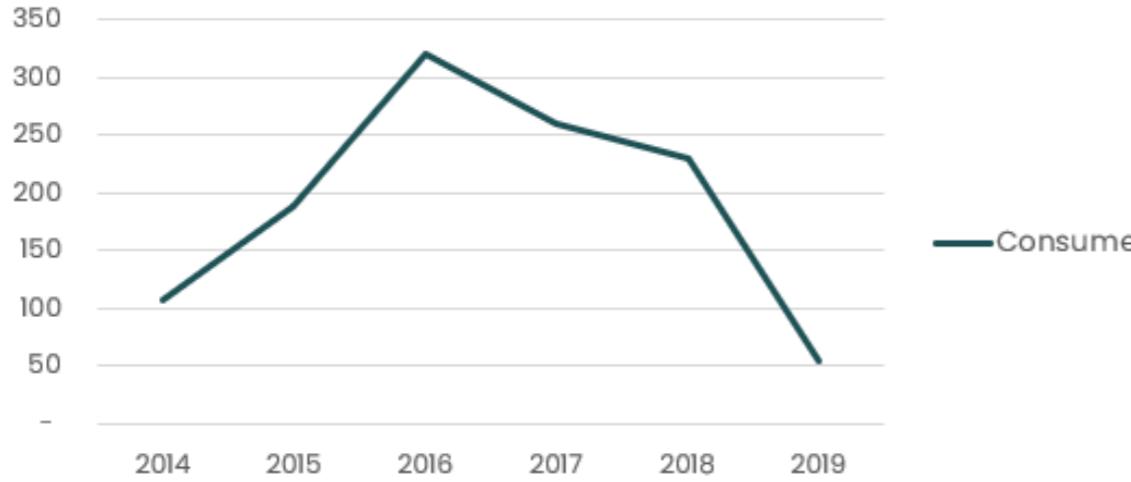
Bar stacked (100%)
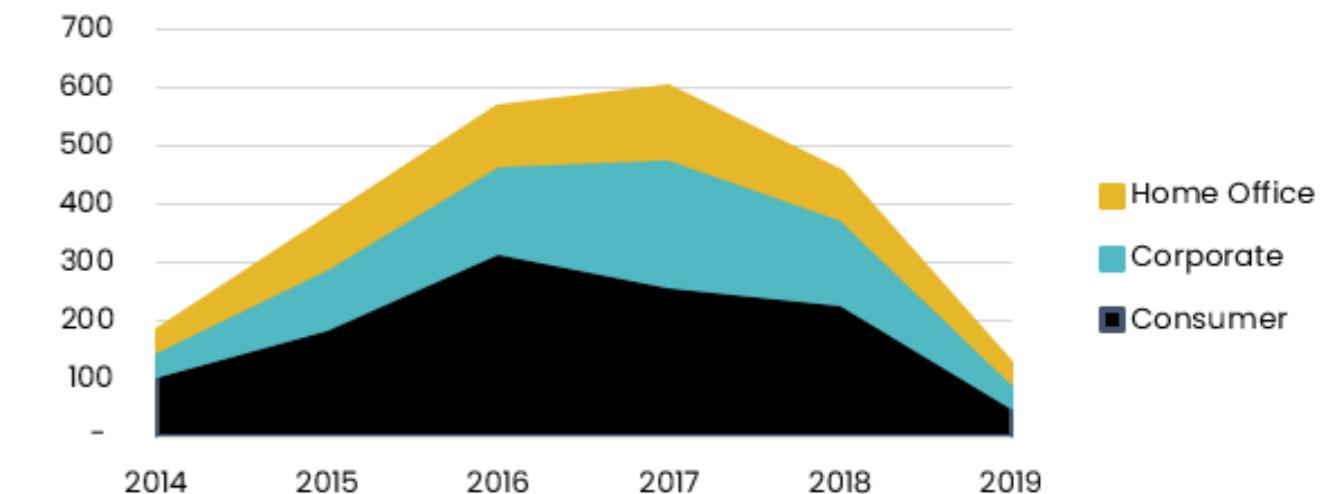
Line and area
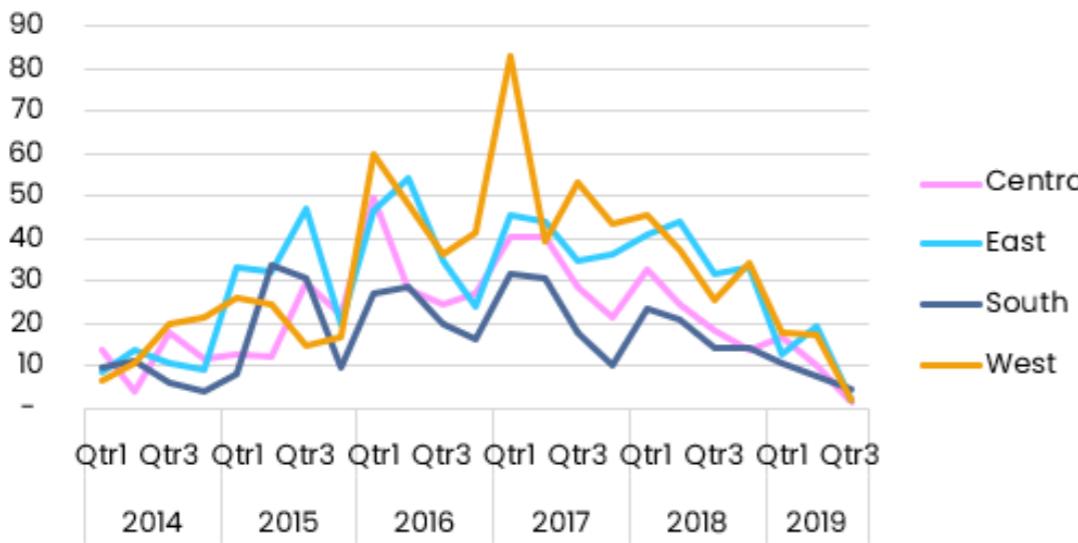
Line charts
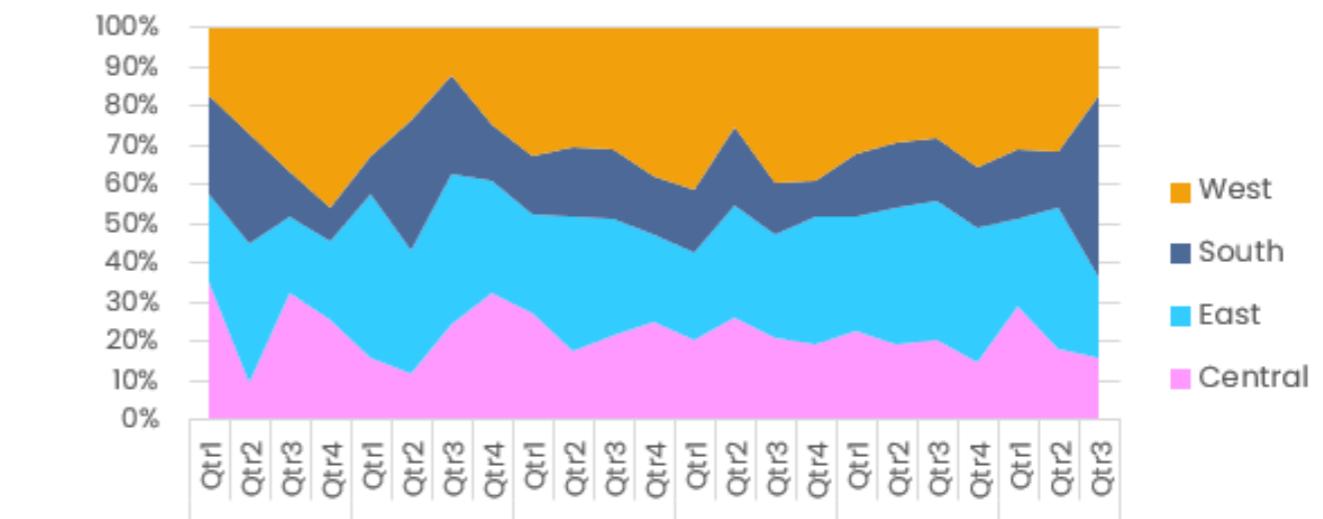
Line – multi category
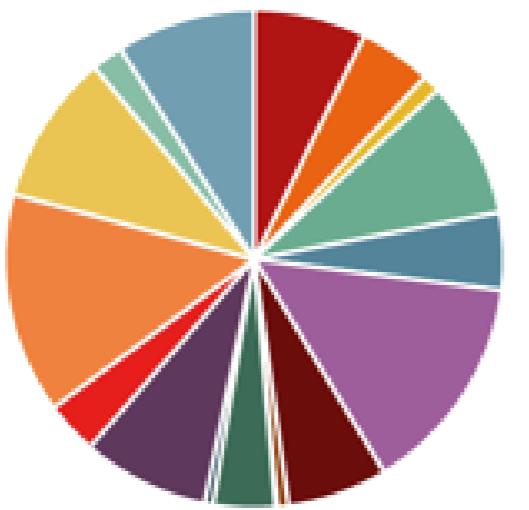
Area stacked

Area stacked (100%)

Pies and doughnuts

Pies and doughnuts

Pie

- Accessories
- Appliances
- Art
- Binders
- Bookcases
- Chairs
- Copiers
- Envelopes
- Fasteners
- Furnishings
- Labels
- Machines
- Paper
- Phones
- Storage
- Supplies
- Tables
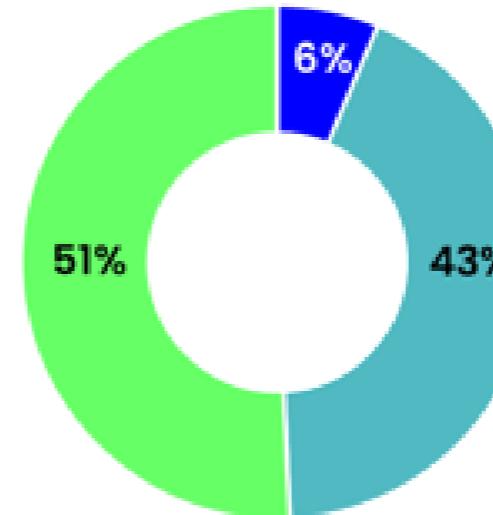
Doughnut

- Accessories
- Appliances
- Art
- Binders
- Bookcases
- Chairs
- Copiers
- Envelopes
- Fasteners
- Furnishings
- Labels
- Machines
- Paper
- Phones
- Storage
- Supplies
- Tables

6%
51%
43%

- Furniture
- Office Supplies
- Technology

6%
51%
43%

- Furniture
- Office Supplies
- Technology

datacamp

Our dataset for this course: "We Have It All"

- Commercial dataset

- Sales and orders of a department store

- Various dimensions, e.g., region, product category

- Various measures, e.g., sales, profit, discounts

- **Disaggregated data** = raw dataset

- **Aggregated data** = summary data tables

Raw data (disaggregated)

| Order ID	Order Date	Segment	State	Region	Sub-Category	Sales	Quantity	Profit
CA-2016-152156	11/08/2016	Consumer	Kentucky	South	Bookcases	262	2	42
CA-2016-152156	11/08/2016	Consumer	Kentucky	South	Chairs	732	3	220
CA-2016-138688	06/12/2016	Corporate	California	West	Labels	15	2	7
US-2015-108966	10/11/2015	Consumer	Florida	South	Tables	958	5	(383)
US-2015-108966	10/11/2015	Consumer	Florida	South	Storage	22	2	3
CA-2014-115812	06/09/2014	Consumer	California	West	Furnishings	49	7	14
CA-2014-115812	06/09/2014	Consumer	California	West	Art	7	4	2
CA-2014-115812	06/09/2014	Consumer	California	West	Phones	907	6	91
CA-2014-115812	06/09/2014	Consumer	California	West	Binders	19	3	6
CA-2014-115812	06/09/2014	Consumer	California	West	Appliances	115	5	34
CA-2014-115812	06/09/2014	Consumer	California	West	Tables	1,706	9	85
CA-2014-115812	06/09/2014	Consumer	California	West	Phones	911	4	68

Summarized data (aggregated)

Region	Furniture	Office Supplies	Technology
Central	$ 163,797	$ 167,026	$ 170,416
East	$ 208,291	$ 205,516	$ 264,974
South	$ 117,299	$ 125,651	$ 148,772
West	$ 252,613	$ 220,853	$ 251,992

Sub-Category	Sales	Quantity	Profit
Bookcases	$ 114,880	868	$ -3,473
Chairs	$ 328,449	2,356	$ 26,590
Labels	$ 12,486	1,400	$ 5,546
Tables	$ 206,966	1,241	$ -17,725

Let's get started!

DATA VISUALIZATION IN EXCEL

Building the first charts

DATA VISUALIZATION IN EXCEL

Agata Bak-Geerinck
Senior Data Analyst

Let's practice!

DATA VISUALIZATION IN EXCEL