Hyperiondev

TASK

Data Visualisation II

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Introduction

WELCOME TO THE DATA VISUALISATION II TASK!

Now that you have a good understanding of some of the basic data visualisations, it is time to become familiar with more advanced ones.

Get in touch

Connect for support

Remember that with our courses, you're not alone! You can contact an expert code reviewer to get support on any aspect of your course.

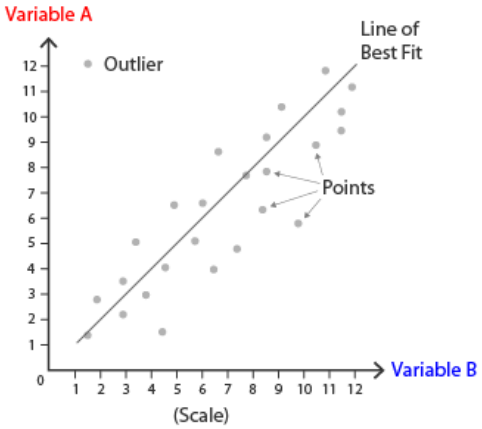
The best way to get help is to login to Discord at **https://discord.com/invite/hyperdev** where our specialist team is ready to support you.

Our team is happy to offer you support that is tailored to your individual career or education needs. Do not hesitate to ask a question or for additional support!

MORE DATA VISUALISATION TECHNIQUES

Depending on what you want to find from your dataset, you need to choose appropriate visualisations. We have already considered some techniques in the previous task. Here are some more basic visualisation techniques:

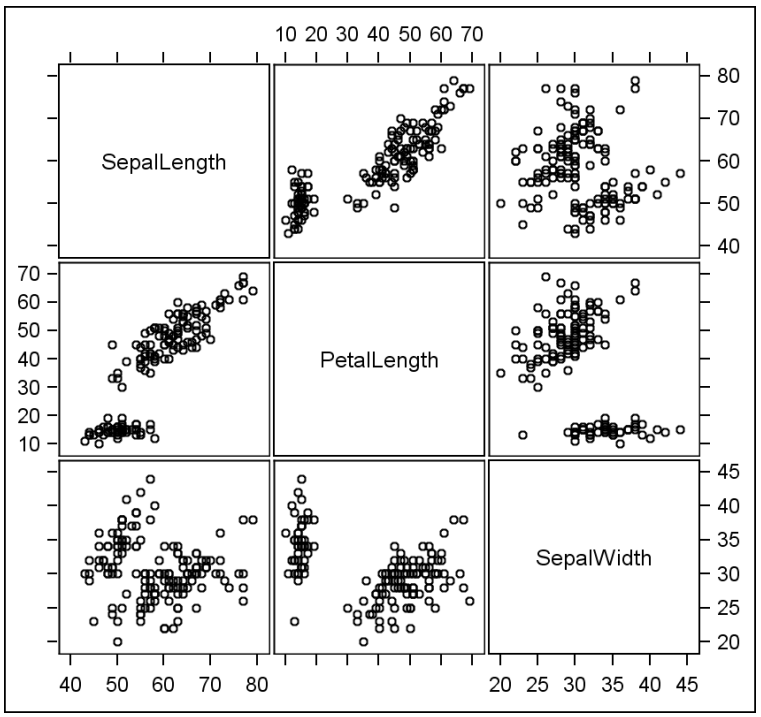
- **Scatterplot:** a scatterplot is also known as a scatter graph, x-y plot or point graph. It uses a collection of data points placed on the cartesian coordinates (the x-y axis). Through this visualisation, you are able to identify a trend or relationship between two variables.



Best used for data that is characterised by:
  - Numerical values
  - 2 variables (X, Y)

Not useful for:
  - Categorical data
  - Time series

- **Scatterplot matrix:** unlike scatterplot visualisations, a scatterplot matrix helps you determine relationships between multiple variables.



Reference:

https://blogs.sas.com/content/graphicallyspeaking/2012/10/07/scatter-plot-matrix-with-a-twist/

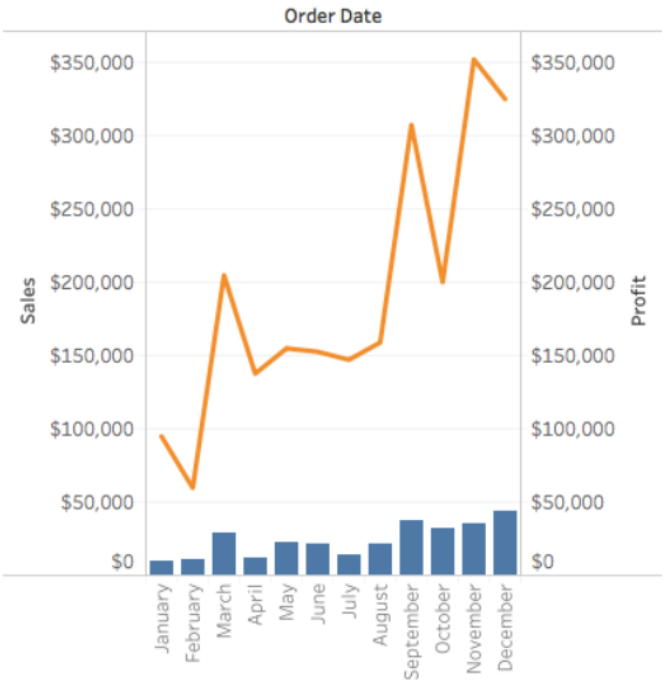
Best used for data that is characterised by:

- Numerical values
- Multiple variables

Not useful for:

- Time series

- **Double axis chart:** a double axis chart is also known as a dual-axis chart. A double axis chart has two y-axes, thus the graph will have x, y1, y2 axes. It can be both a bar chart with a line graph or multiple lines on a visualisation. Be careful about having a messy visualisation because of the dual-axis.



Reference:

https://onlinehelp.tableau.com/current/pro/desktop/en-us/qs_combo_charts.htm

Best used for data that is:

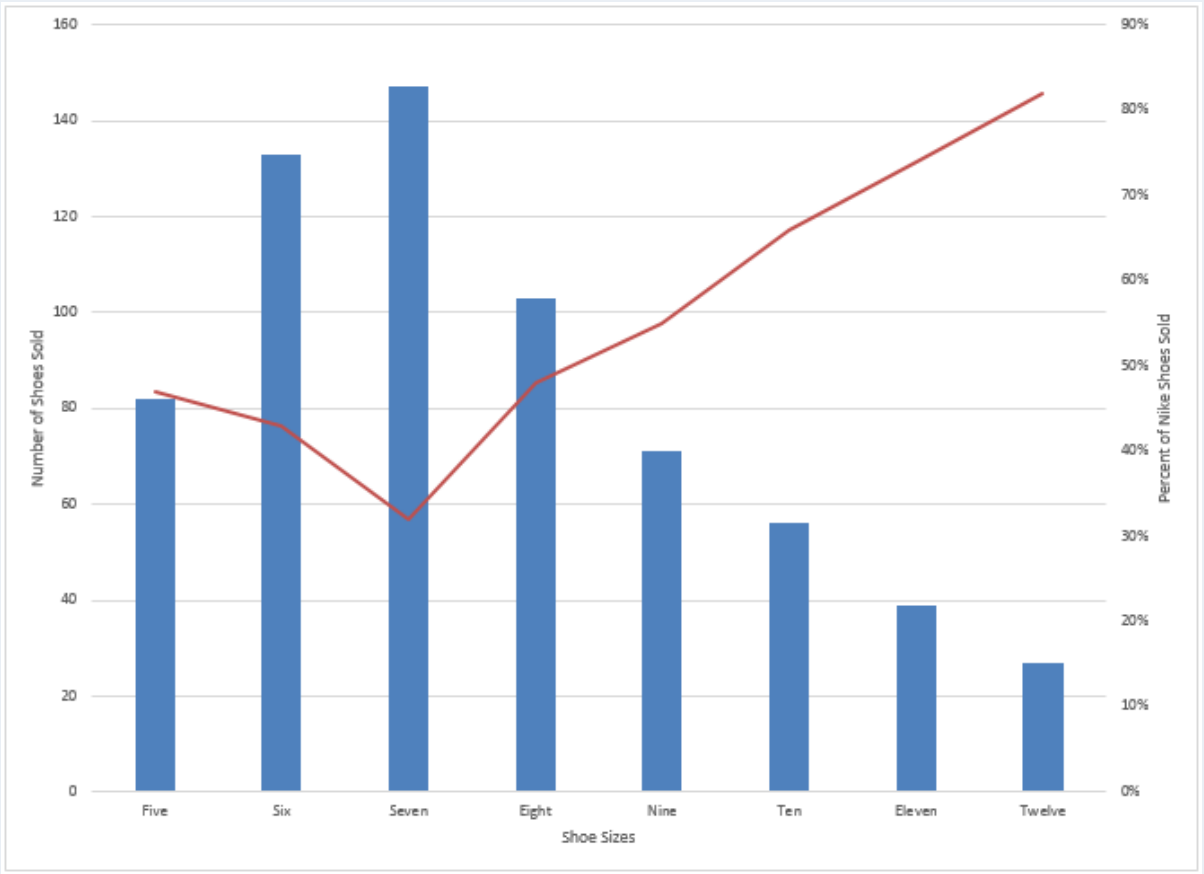
- Time series
- Discrete
- Continuous

Extra resource

Data visualisation, also known as infographics, can be overwhelming! But there are many resources, as well as information worth consulting. **Here** is a quick catalogue of some of the latest data visualisation techniques.

Compulsory Task 1

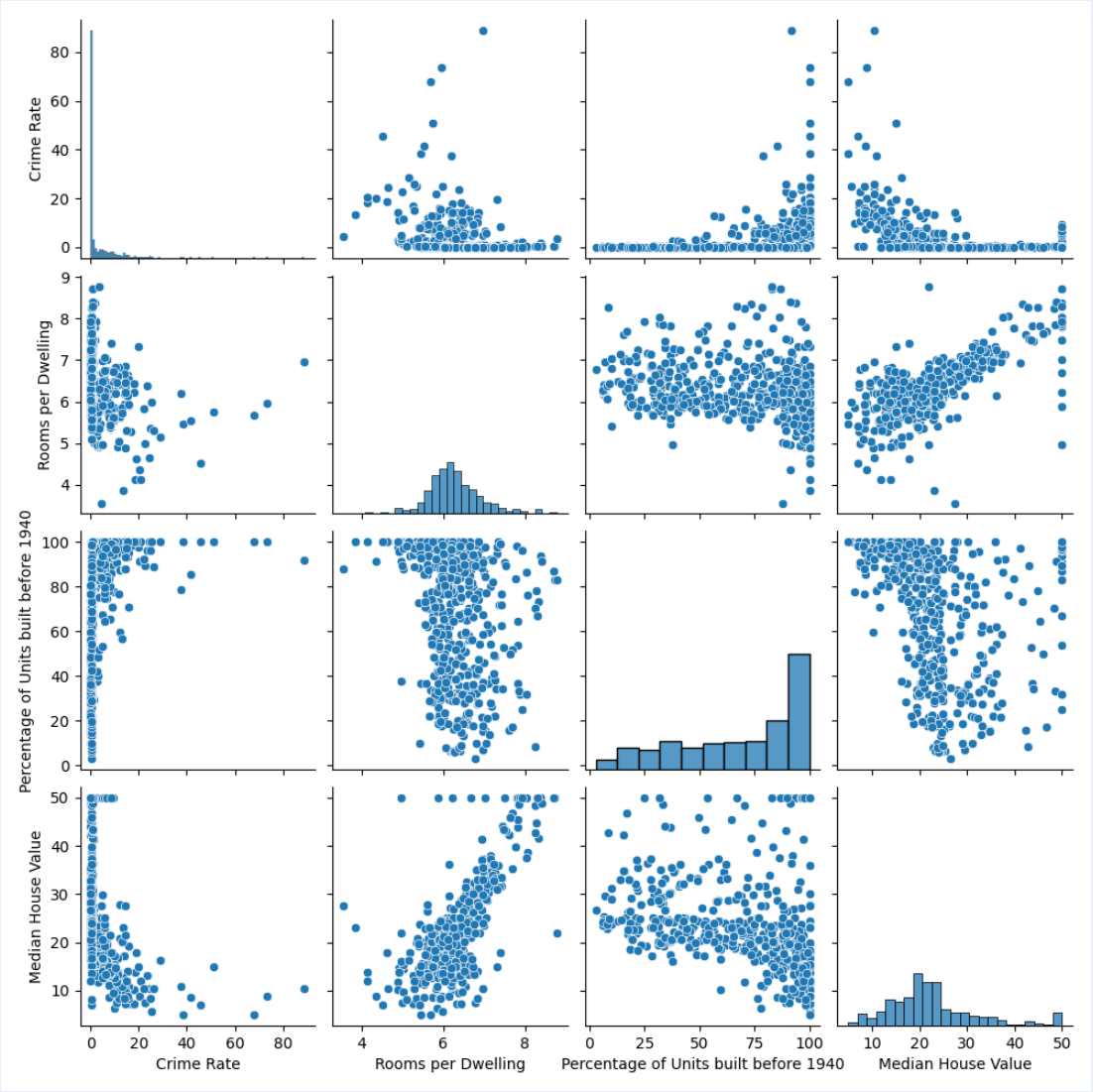
The following double axis chart shows the number of shoes that have been sold along with the percentage of shoes sold. Examine this chart and answer the questions that follow:



- Which shoe size has the highest percentage sold?
- Which shoe size is the most manufactured?
- Based on this data, which shoe sizes should be manufactured more, and which sizes should be manufactured less?

Compulsory Task 2

The following scatterplot matrix is from the Boston Housing dataset. It examines certain characteristics of a neighbourhood along with the Median House Value of that neighbourhood. Examine this graph and answer the questions that follow:



- Does Boston have a lot of crime generally? Explain.
- Generally speaking, how many rooms do Boston dwellings have? Explain.
- Does the number of rooms per dwelling have an impact on housing prices? Explain.
- Would you say that most of the houses in Boston are new? Explain.
- Are modern neighbourhoods pricier than older neighbourhoods? Explain.

Completed the task(s)?

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