

</talentlabs>

# CHAPTER 4

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## Data Visualisation with Tableau



# Learning Objectives

- Introduce Tableau
- Understand the core concepts of data visualisation
- Learn how to create popular charts as well as dashboards in Tableau





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# AGENDA

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- Introduction to Tableau
- Getting started with Tableau Public
- Your first Viz!
- The art of data visualisation
- Dashboards
- Dashboards advanced
- Sharing your dashboards
- Conclusion

# Introduction to Tableau

- What is Tableau?
- Tableau software breakdown



# What is Tableau?

- Analytics platform and data visualisation tool
- Fast and easy to use
- No coding!
- Unique charts



# Why are data visualisation tools important?

- Can be the difference between **grasping the problem** and utter **confusion**
- Data visualisation is not easy – good tools **simplify the process**





- Tableau Prep Builder
- Tableau Desktop
- Tableau Public



- Tableau Prep Builder
- Tableau Desktop
  - Requires license
- Tableau Public
  - Free



# Limitations of Tableau Public

- Can only share reports publicly
- Number of importable file types is limited



# Getting started with Tableau Public

- Setting up your Tableau Public account



# Setting up your account

- Go to: [public.tableau.com](https://public.tableau.com)
  - Sign up
    - Create a Profile
- Check out the **Discover** page



# Your first viz!

- Connecting a data source
- Navigating the interface
- Making your first chart



# Basics

- To make a viz:
  - Go to your profile > Create a Viz
- To add a data source either:
  - Upload as you open the Viz
  - Go to Data > New Data Source
- To make a new sheet:
  - Press New Worksheet (bottom left)
  - Drag and drop your Rows and Columns

Dimensions – categorical variables

Measures – numeric variables



# The art of data visualisation

- Introduce popular visualisations in Tableau
- Understand best practices for good visualisations



# Excellent chart options in Tableau

- **Bar Charts**: for comparing categorical data
- **Bubble Charts**: for comparing quantity
- **Maps**: for presenting geocoded data
  - (also heatmaps: for showing relationships between two factors)
- **Highlight Tables**: for tabular presentation
- **Bullet Graphs**: to compare goals with performance
- **Line Graphs**: to investigate trend over time
- **Scatter Plots**: to understand relationships and trend



# Choosing appropriate visualisations

- What **relationship** am I trying to establish?
- What **question** am I trying to answer?
- Sometimes a simple table will do!



# Best Visualisation Practices

- Story!
- Leverage visual elements:
  - **Shape** (mark shape, shape representation)
  - **Colours** (mark colour, colour palettes, colour representation, clarity)
  - **Size** (mark size, proximity)
  - **Data to ink ratio** (focus on essential visuals)
  - **Labels** (present, easy to read, clear)
  - **Annotations** (for additional detail)
  - **Axes** (multiple if needed, axis range)
  - **Headlines** (engaging?)

# Dashboards

- Why dashboards are useful
- Making dashboards in Tableau



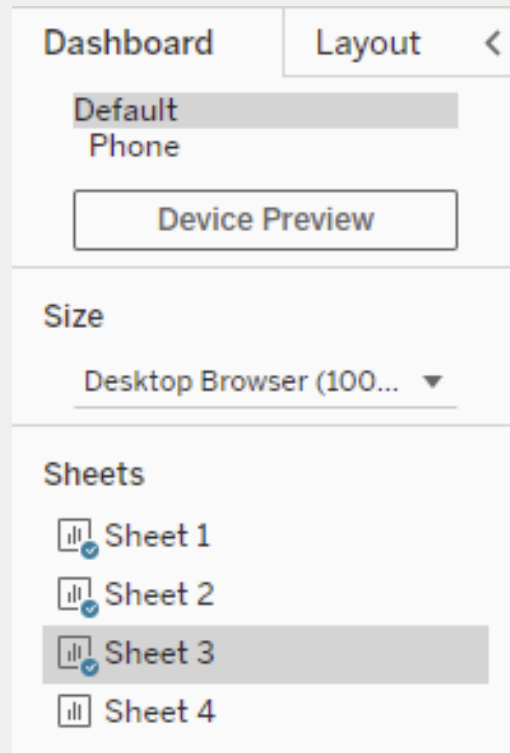
# Dashboards

- Think of them as a data visualisation poster
- All key information in one place
- Easy to interpret



# Create a Dashboard

- Press New Dashboard (bottom left)



- Preview dashboards in current size and mobile view
- Adjust size
- Double click into sheets to add them to dashboard

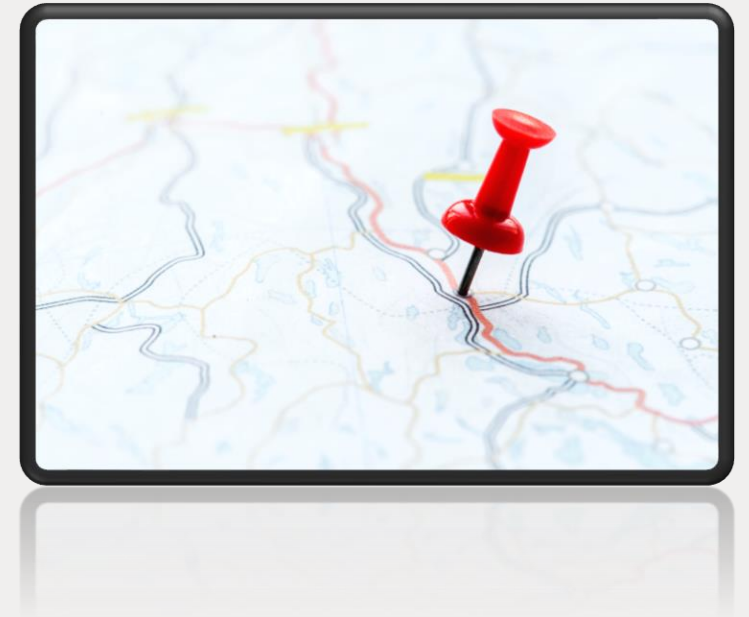
# Dashboards advanced

- Useful tips to keep dashboards clear and powerful



# Dashboard Tips

- Think about the dimensions (mobile vs desktop)
- Add a title
- Add logo
- Utilize containers
- Update sheet specific tool tips
- Add Actions to make it interactive! (Dashboard > Actions...)
- Float filters (shift + left click to drag away from rigid format)
- Adjust filters (dropdown, multi-select, etc)
- Fill out the space (but think about the data-to-ink ratio)



# Sharing your Dashboards

- How to share you work on Tableau Public



# Publishing Dashboard

- File > Publish as...
  - Give the file a name
  - Publish
- Go to Profile to view or adjust public visibility
  - Can still share and embed if not visible to public





# Conclusion



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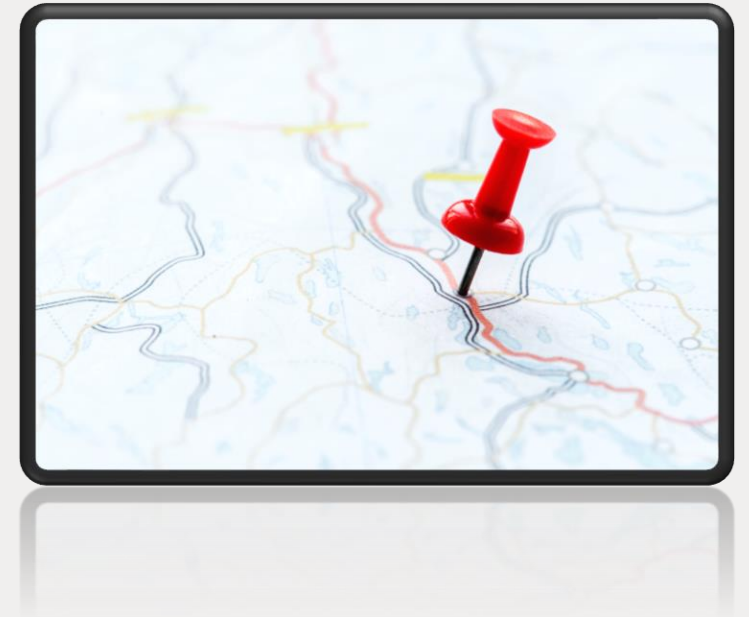
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# Assignment

- Create multiple charts in Tableau using the 1000 games dataset

