

# **Data Visualisation - Introduction**

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# Mini Project Updates and Discussion



# PowerQuery Recap

- Power Query is an application for transforming and preparing data. With Power Query you can get data from sources using a graphical interface and apply transformations using a Power Query Editor.
- Using Power Query, a business intelligence tool offered by Microsoft Excel, you can import data from any number of sources, clean it, transform it, then reshape it according to your needs. In this way, you can set up a query only once, re-use it later by simply refreshing.
- Power Query is available as a free add-in on Excel 2010 and 2013, which you can download from Microsoft's website. It is a built-in tool starting with Excel 2016 and is available in the Get & Transforms Data Section under Data Tab.



# Power Query Limitations

- Less advanced tools and techniques for Data Visualisation
- Not efficient for sharing of reports to other team/project members
- Lack of business intelligence tools such as data visualisations and dashboards.
- Power Query has limitation of loading approx 1 million rows to worksheet (1,048,576)
- Users have limited features for creating dashboards.

# Data Visualisation



# Data Visualisation

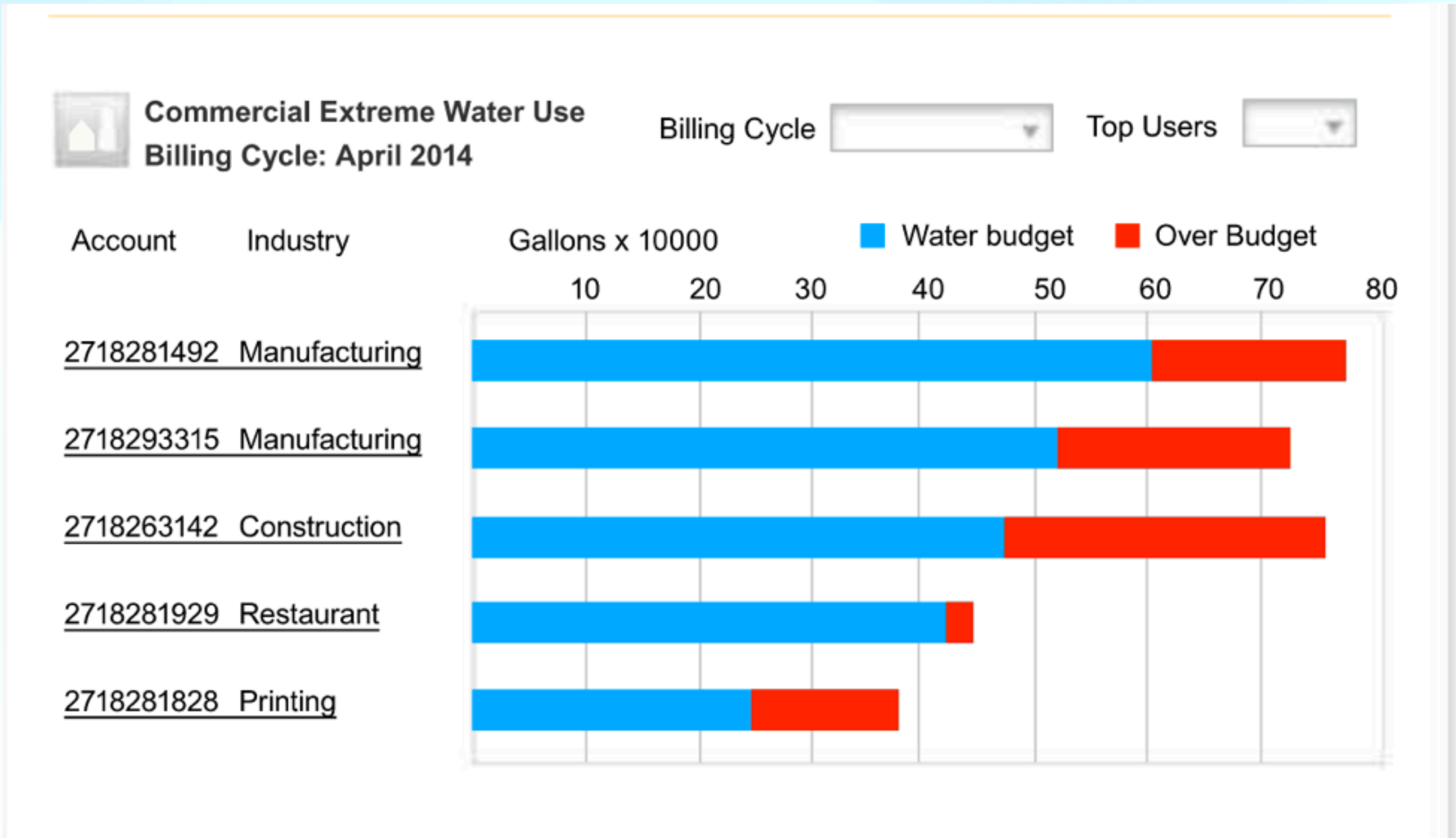
- Data visualisation involves making sense of rows and columns of data by presenting it in an easily understandable format. Data may, therefore, be represented by pictures, charts, or graphs, to make it easy-to-understand or to identify new patterns.
- By using graphical or pictorial representations of data, businesses find it easier to analyse information, draw conclusions from such information, and to address issues in a timely manner. By using data visualization, your business may also be able to recognise relationships and patterns between certain parameters and discover emerging trends as well.

# Elements of effective data visualization



# Elements of Data Visualisation

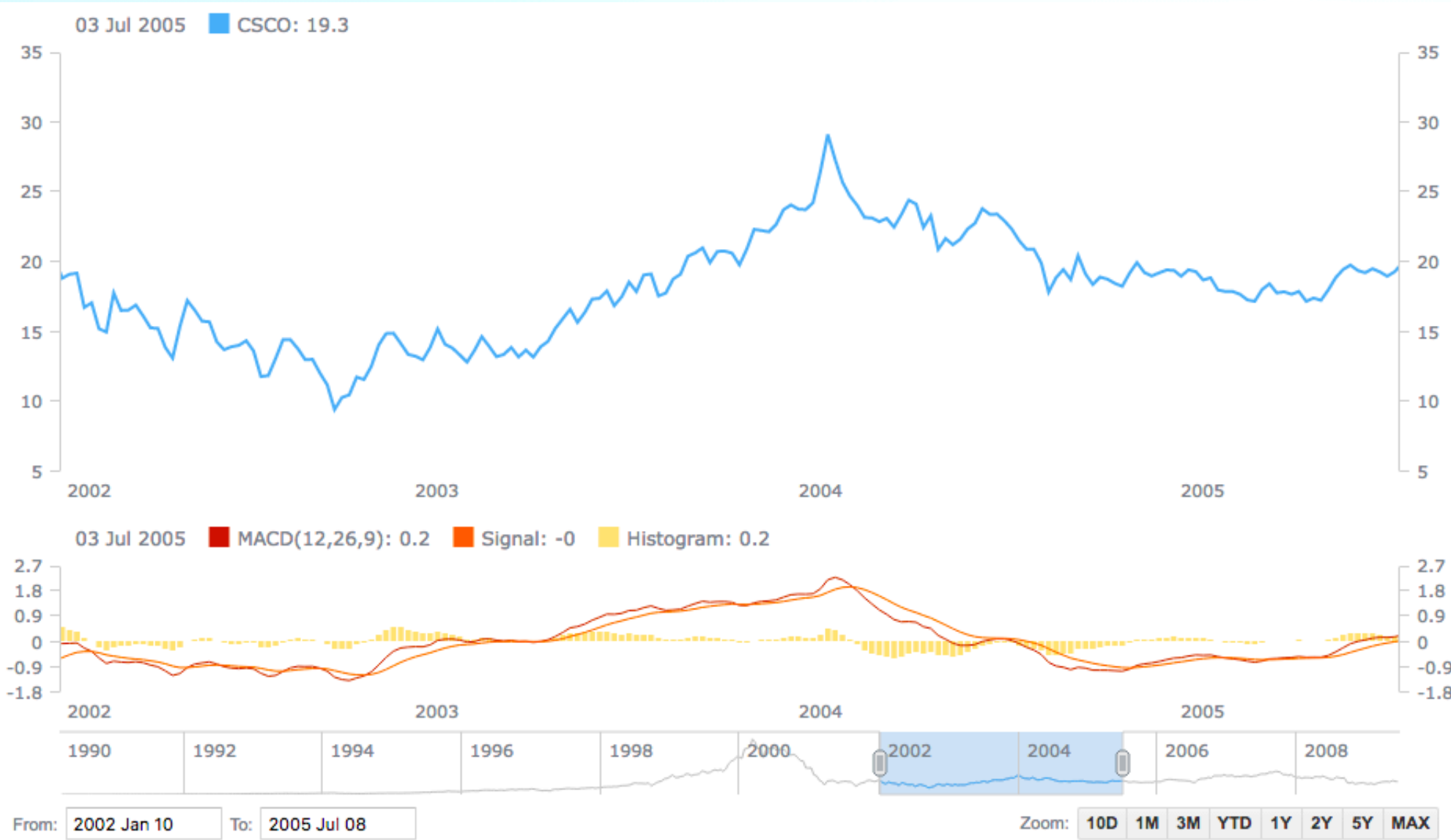
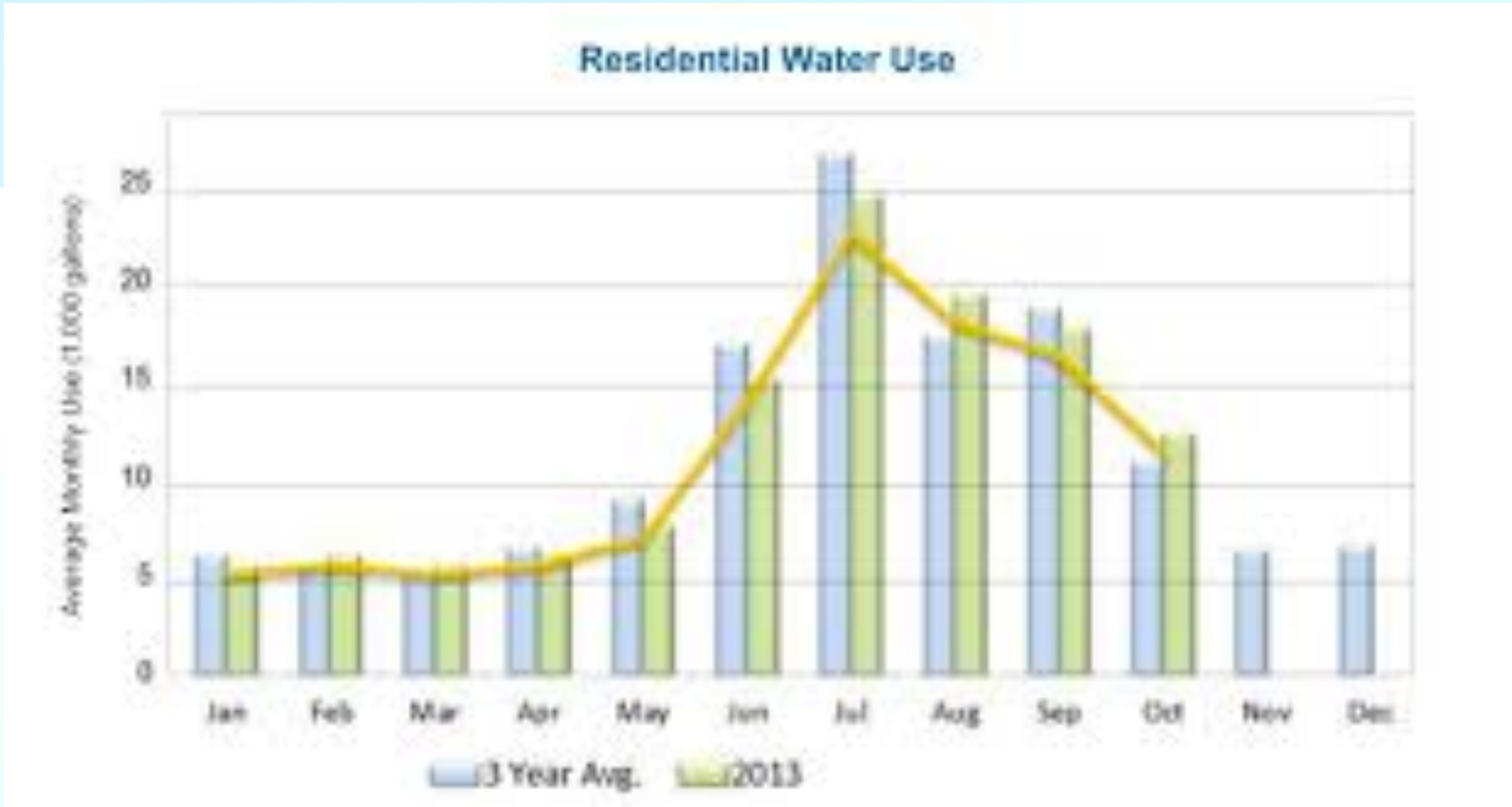
## 1. Clear Headings and Keys





# Elements of Data Visualisation

## 2.Trends Display





# Elements of Data Visualisation

## 3.Organised Data Analysis

	A	B	C	D	E	F
1						
2		Sales Report				
3						
4		Product Id	Category	Quantity	Unit Price	Cost
5		G-1245	Air Condition	35	2022	70770
6		H-453	Mobile	54	6582	355428
7		I-0987	Furniture	45	156	7020
8		K-64567	Cricket Bat	73	400	29200
9		U-75646	Shoe	85	70	5950
10		T-56774	Electronics	15	351	5265
11		C-001458	Furniture	95	254	24130
12		D-562314	Television	82	313	25666
13		F-652154	Transportation	25	25	625
14		A-201458	Electronics	19	55	1045
15		C-125433	Housing	75	2500	187500
16						

### Your Usage Analysis

June 2014 use

June Budget

% of budget

2013 use

Savings

9,000 gal.

9,500 gal.

94%

14,000 gal.

36%

2014 total use

Budget to date

% of budget

2013 use-to-date

Savings

80,000 gal.

86,000 gal.

93%

120,000 gal.

34%

### Your Usage Trend

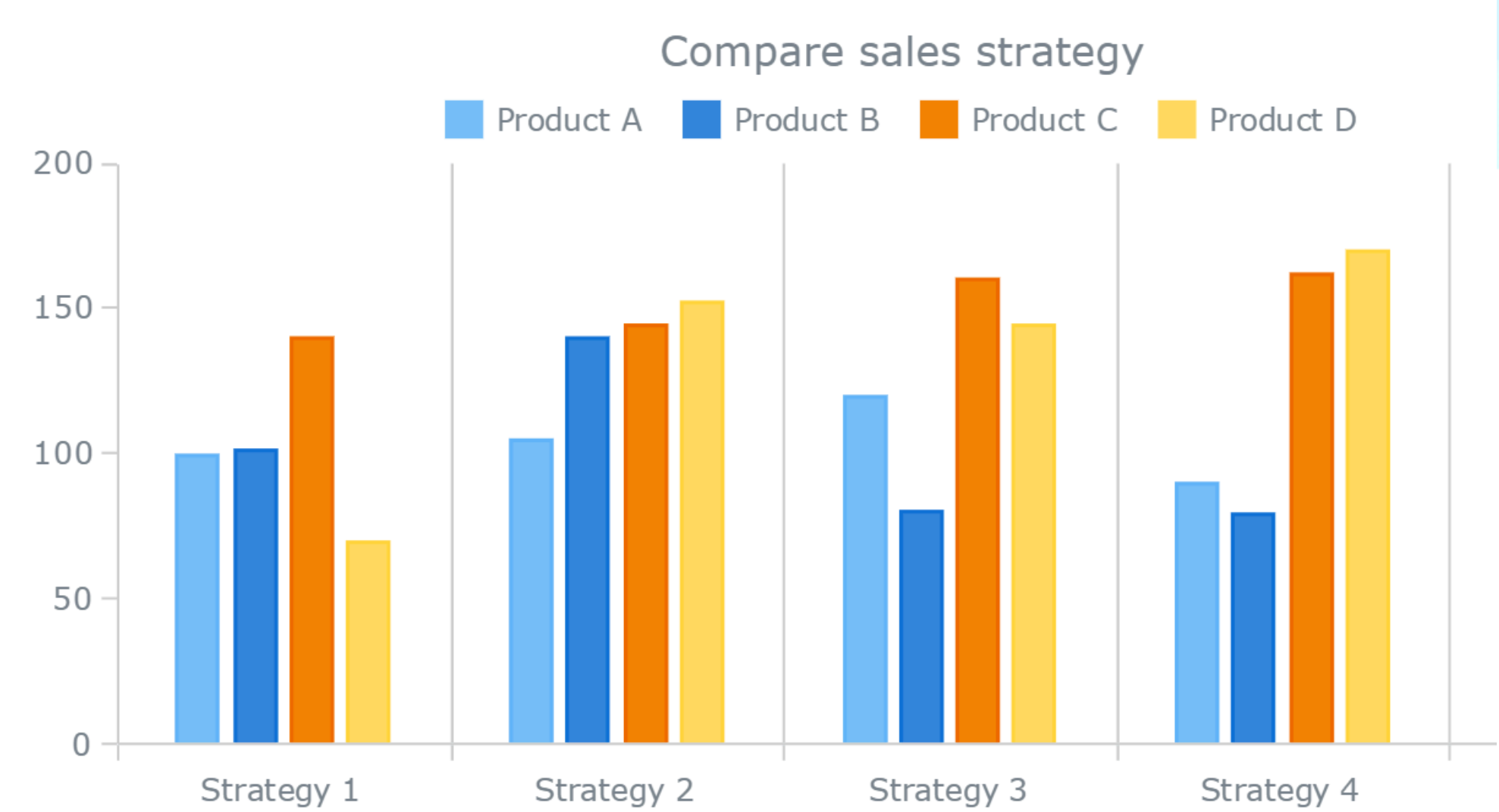
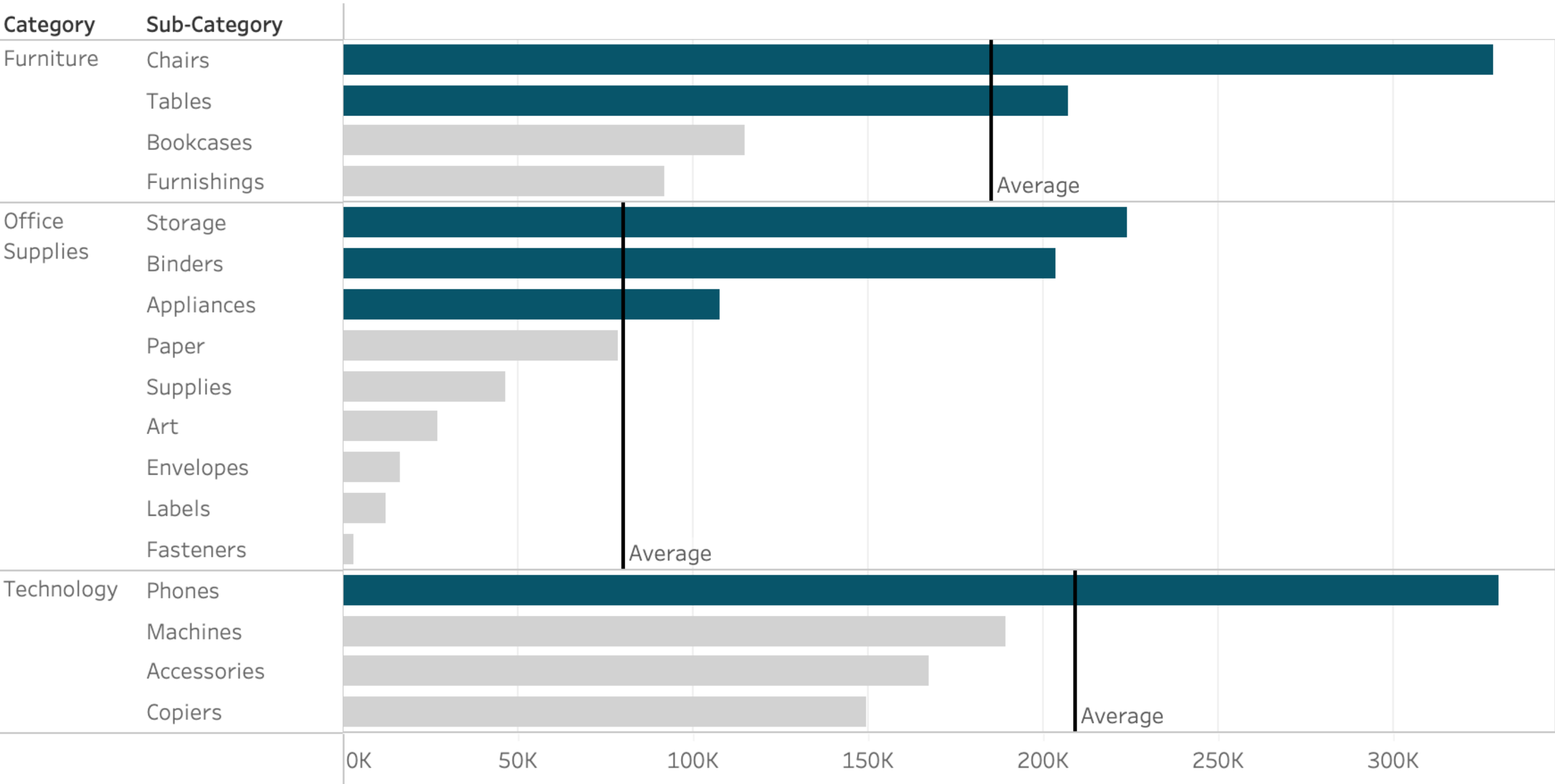
Great job! Your usage is below budget for June and year-to-date. Continue your Conservation efforts with our tips.



# Elements of Data Visualisation

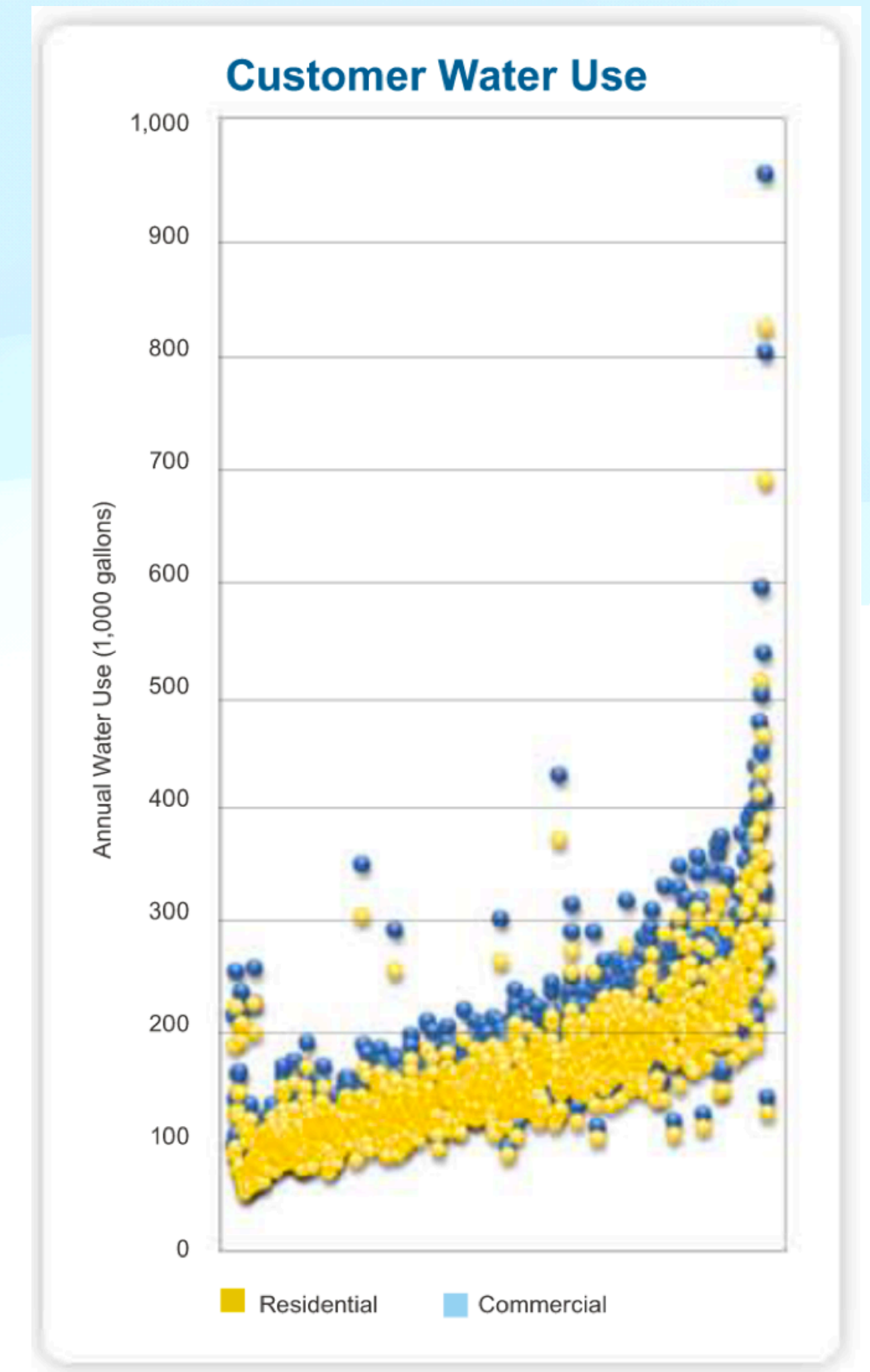
## 4. Relevant Comparision

Which Sub-Category exceed the Category average?



# Elements of Data Visualisation

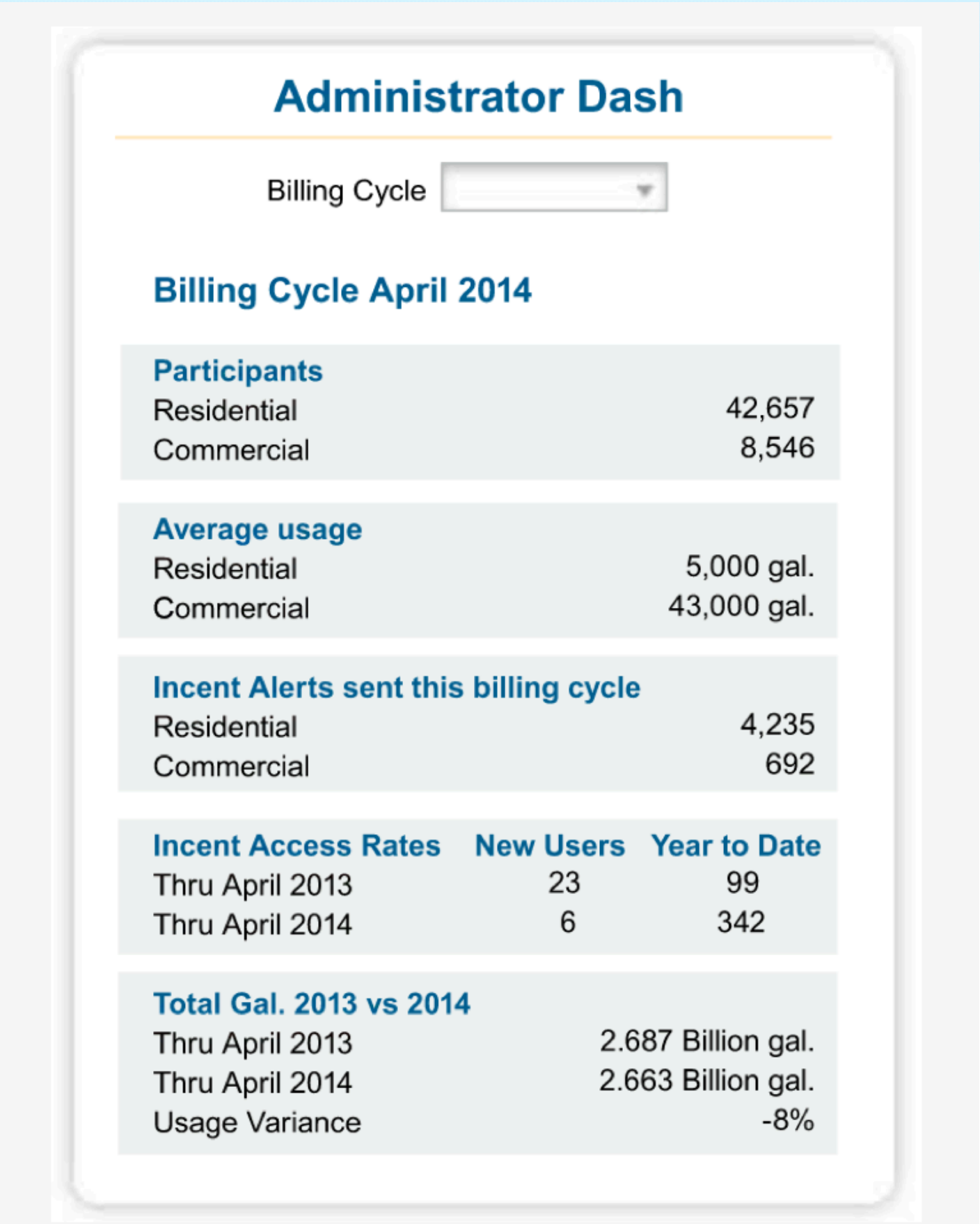
## 5.LOTS OF DATA/EVIDENCE





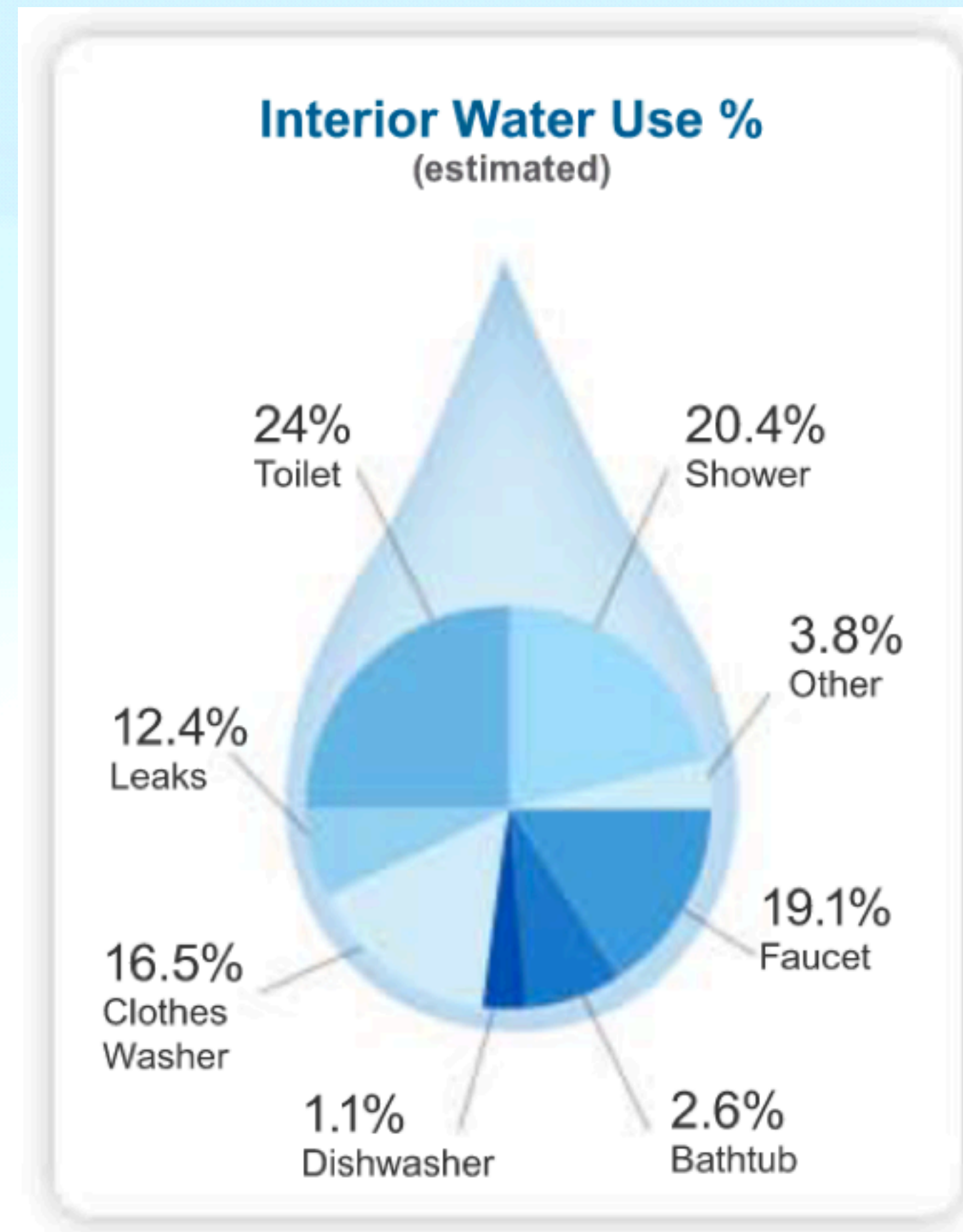
# Elements of Data Visualisation

## 6.Summarisation of Key Points



# Elements of Data Visualisation

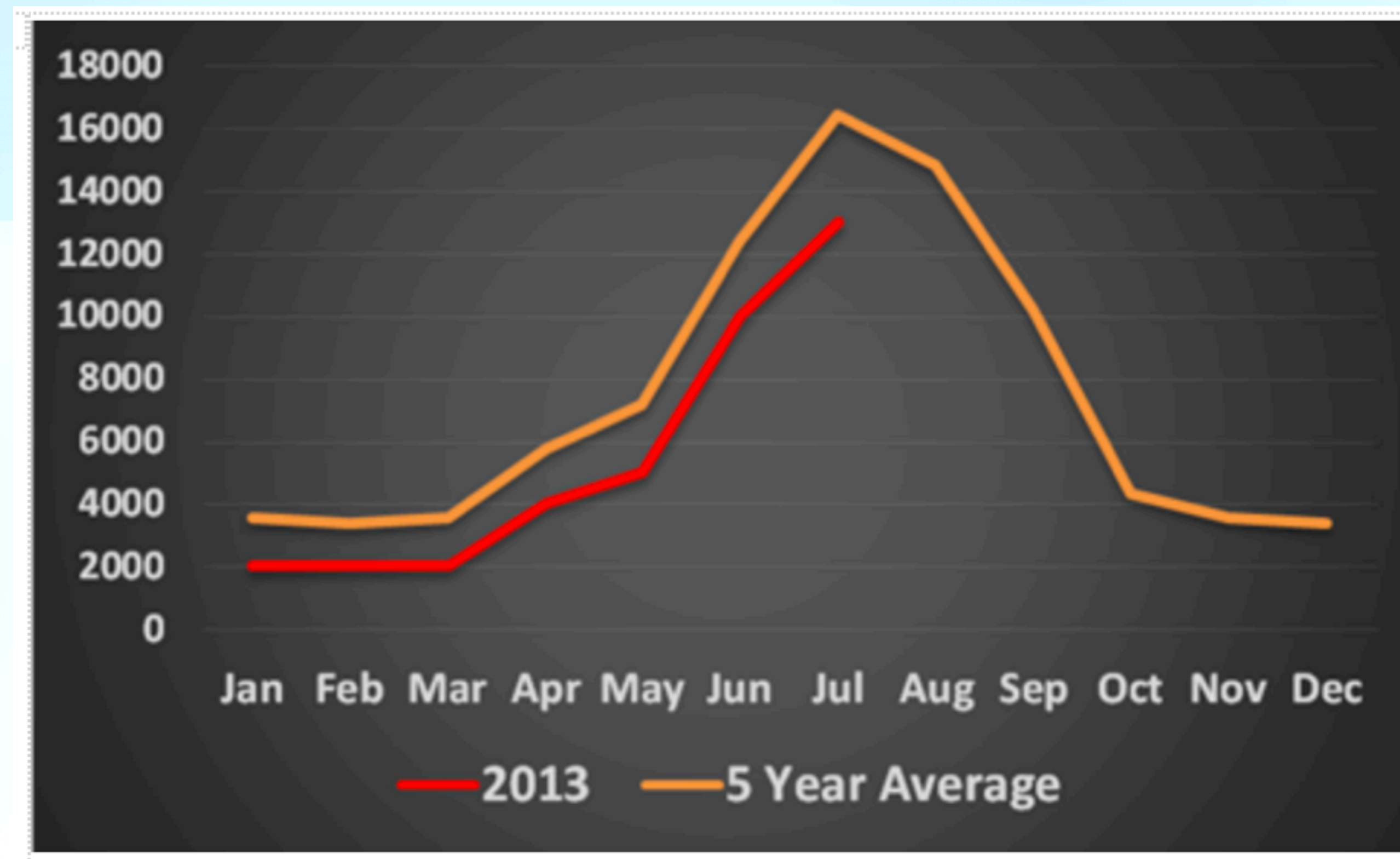
## 7.Add Design Elements





# Elements of Data Visualisation

## 8.Comparisons to averages



# Introduction to Power BI

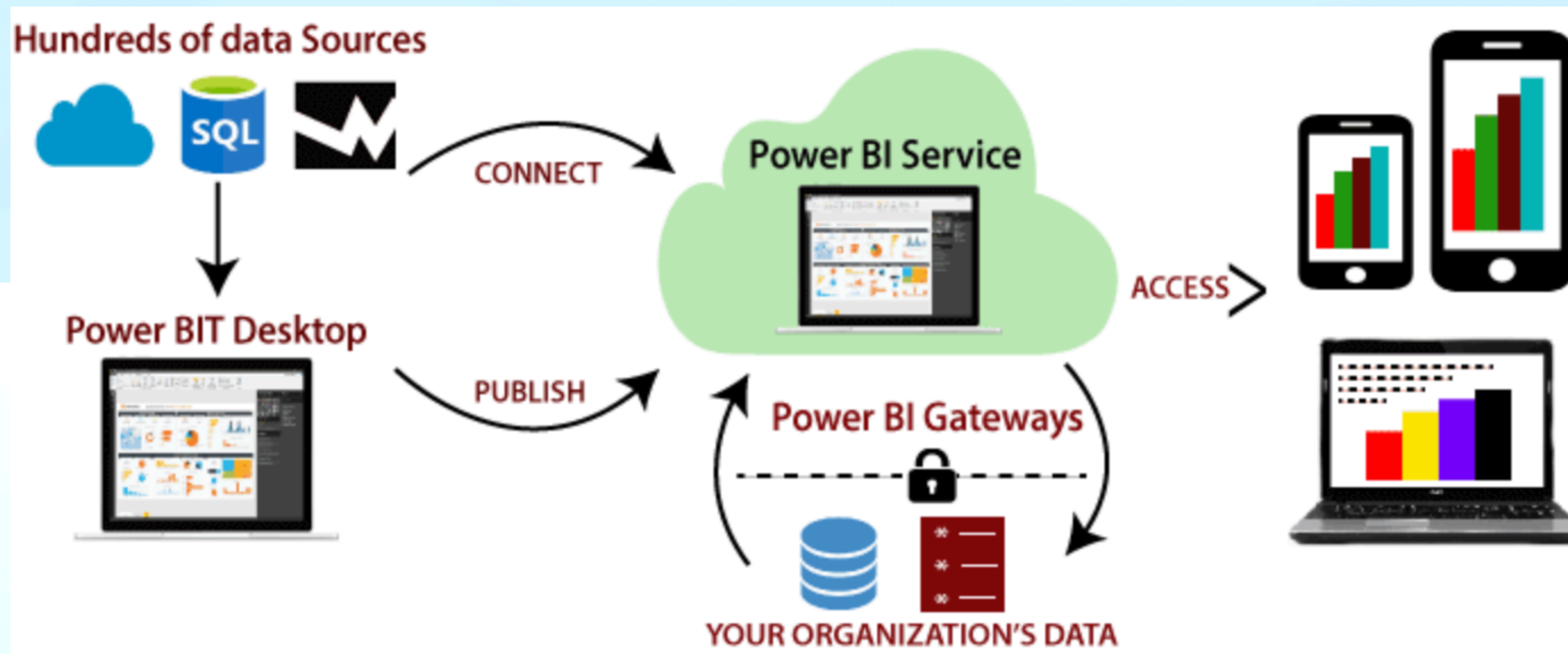


# Power BI

- Power BI is a **Data Visualisation**, and **Business Intelligence** tool which helps to convert data from different data sources into interactive dashboards and BI reports.
- It provides interactive visualisations with self-service business intelligence capabilities where end users can create reports and dashboards by themselves, without having to depend on information technology staff or database administrators.
- Power BI provides multiple connectors, software, and services. These services based on the **SaaS** and mobile Power BI apps which are available for different platforms. These set of services are used by business users to consume data and to build BI reports.



# Power BI

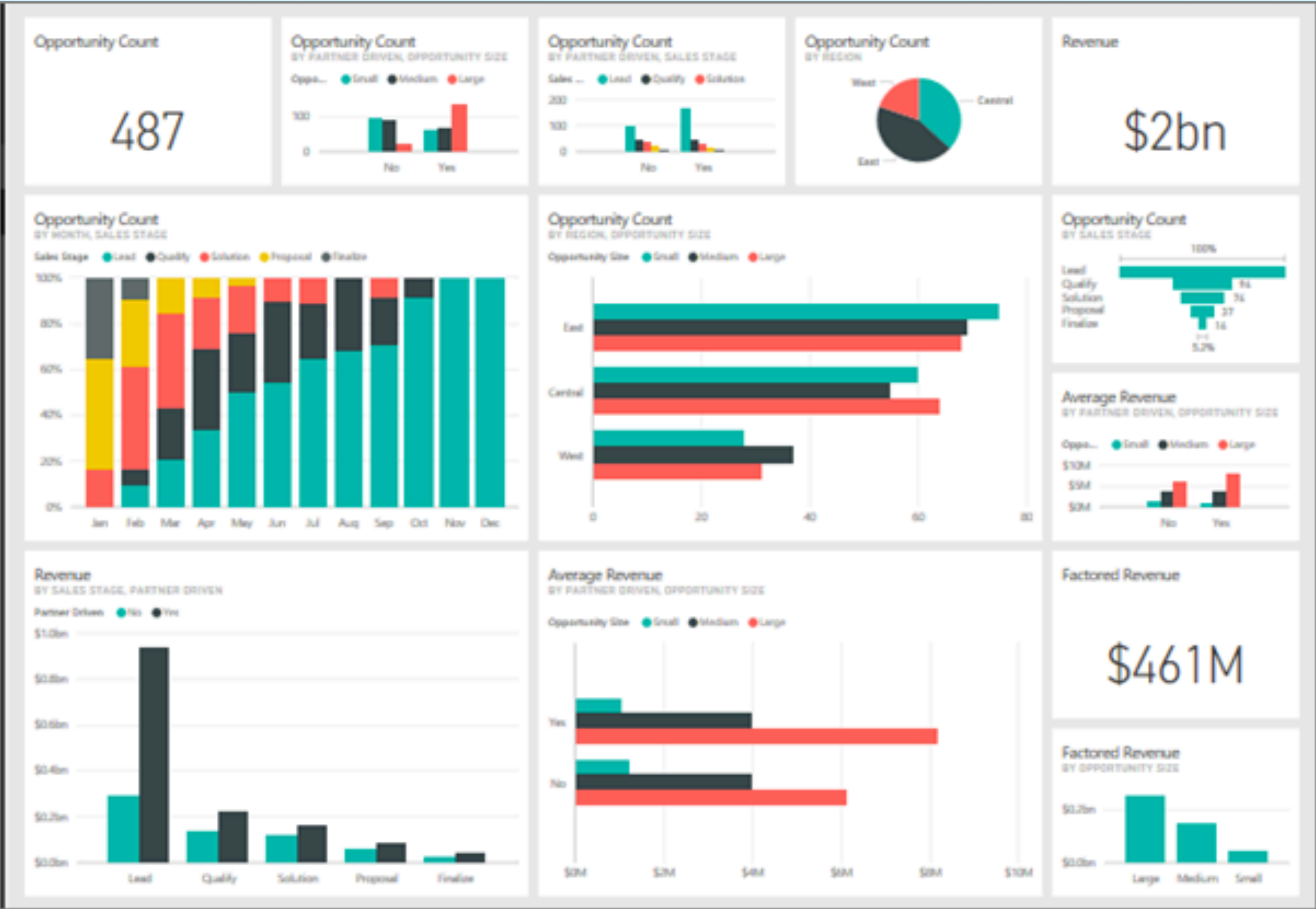




# Power BI Features

- It allows real-time dashboard updates.
- It provides secure and reliable connections to the data sources in the cloud.
- It allows data exploration using a natural language query.
- Power BI provides a hybrid configuration, quick deployment, and secure environment.
- It provides features for dashboard visualization regularly updated with the community.
- It provides pre-built dashboards and reports for SaaS solutions.

# Power BI Dashboard





**Any Questions?**