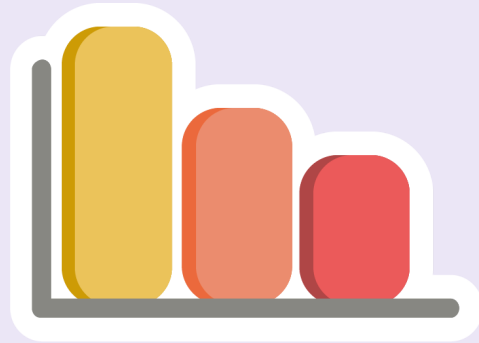


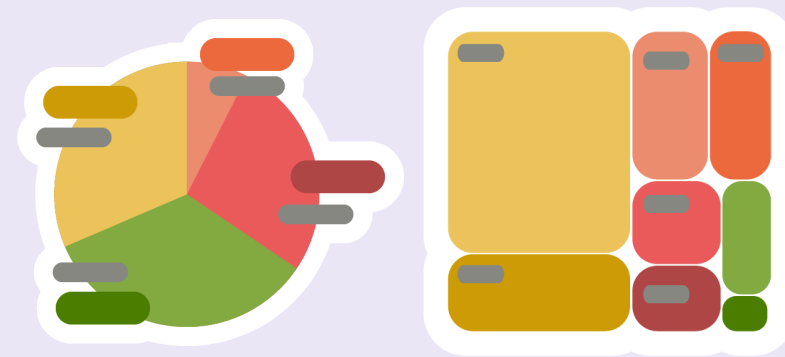
Common Types of Graphs and Charts

Select a chart type to learn more!

Bar Chart



Pie Chart / Treemap



Line Chart



Scatter Plot





Types of Graphs and Charts

Click to select

Bar Chart

Pie Chart /
Treemap

Line Chart

Scatter Plot

Bar charts are often used to compare categorical data, with one axis to represent the groups being compared, and the other to represent the values.

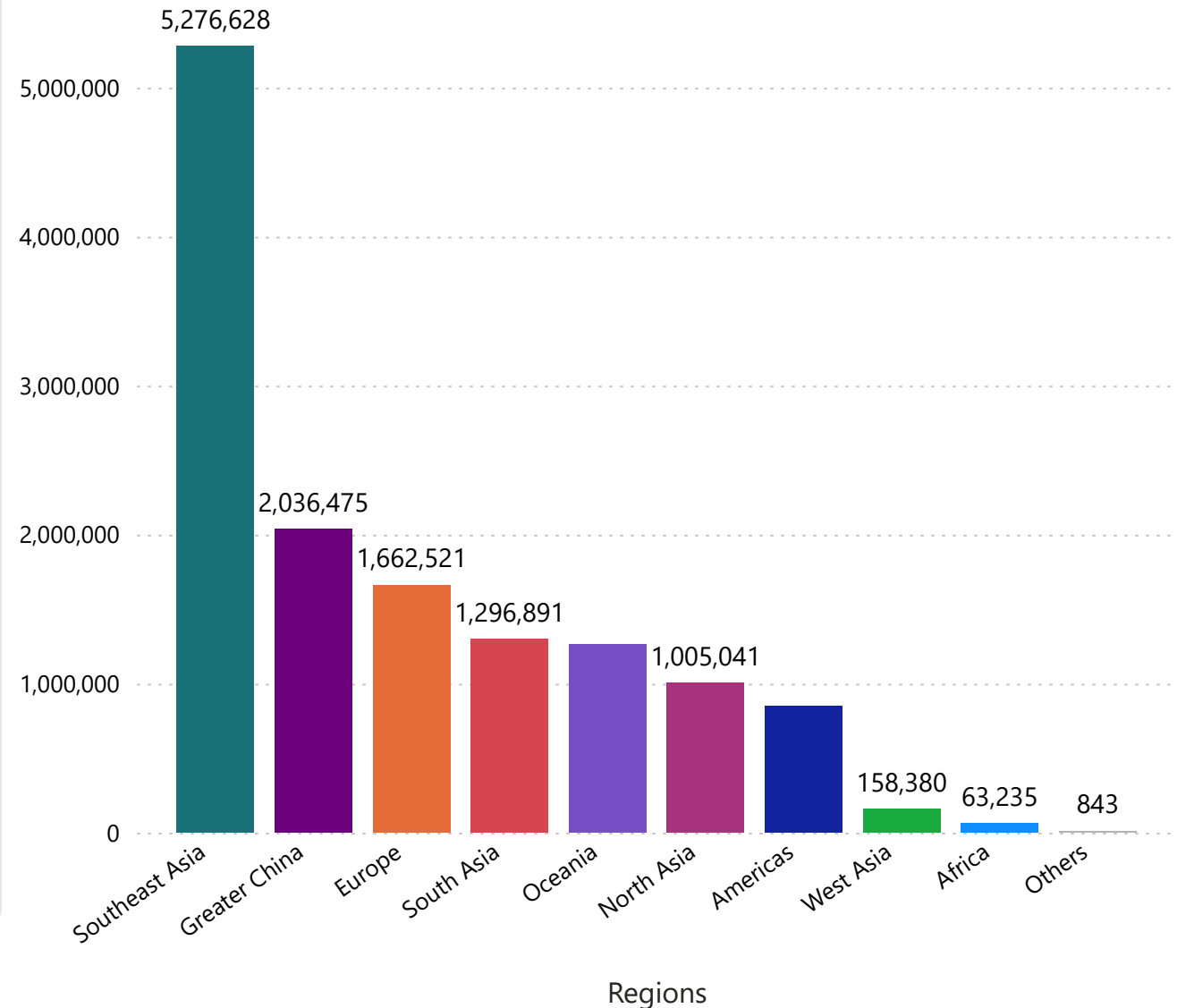
For example, using a dataset which contains countries, months, and number of tourist arrivals, creating a bar chart helps to visualise the number of visitors to each region in a particular period.

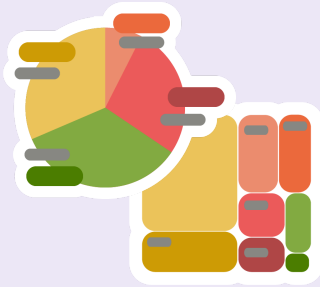
From the bar chart, the top region with the highest number of tourist arrivals in 2023 is Southeast Asia, followed by Greater China and Europe. Regions such as West Asia and Africa had lower number of tourist arrivals during the same period.

Try building the bar chart yourself by using the data from the [SingStat Table Builder!](#)

Bar Chart

Tourist Arrivals in 2023 by Regions





Types of Graphs and Charts

Click to select

Bar Chart

Pie Chart / Treemap

Line Chart

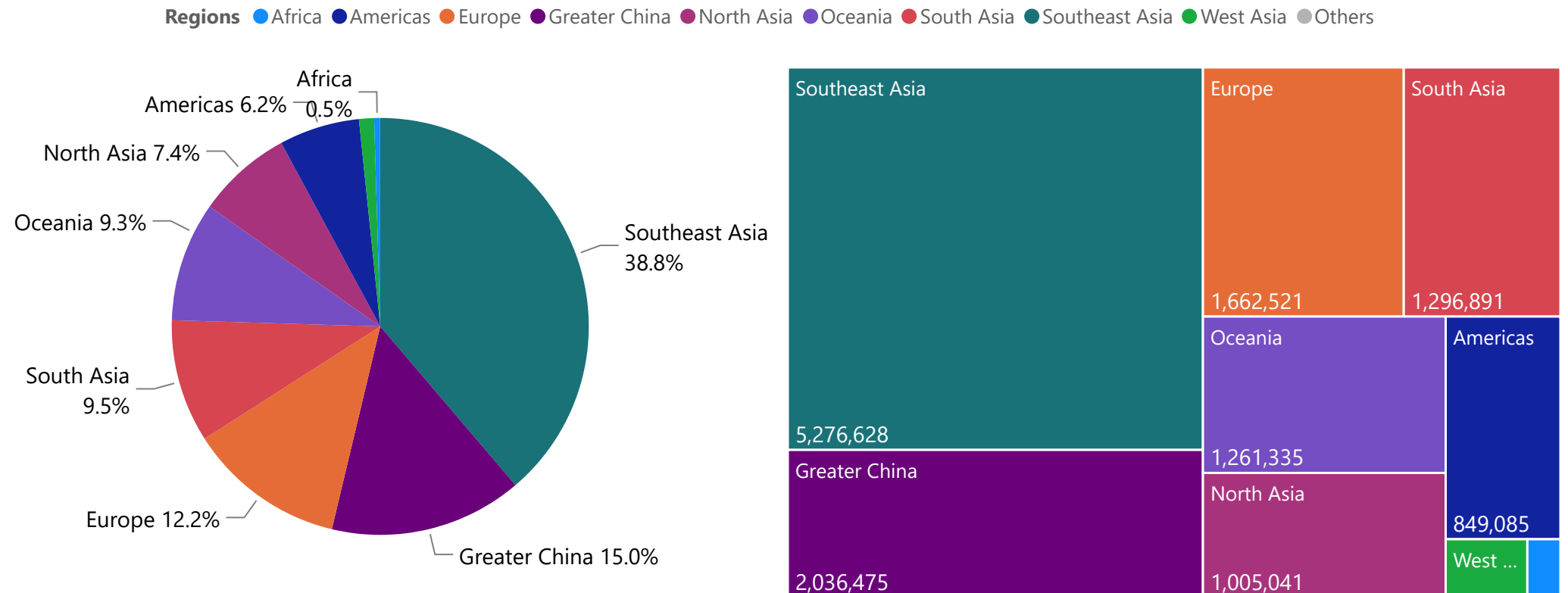
Scatter Plot

Pie Chart / Treemap

Pie charts or treemaps can be used to illustrate proportions. For each group, the area of its slice is its value **relative** to the sum of all groups, i.e. the proportion, which helps us to compare each groups in relative terms. However, they are less useful in cases where absolute terms are important.

Both the pie chart and treemap below show that tourists from Southeast Asia make up the largest proportion of tourist arrivals in 2023, while tourists from Greater China form the next largest group.

Tourist Arrivals in 2023 by Regions





Types of Graphs and Charts

Click to select

Bar Chart

Pie Chart /
Treemap

Line Chart

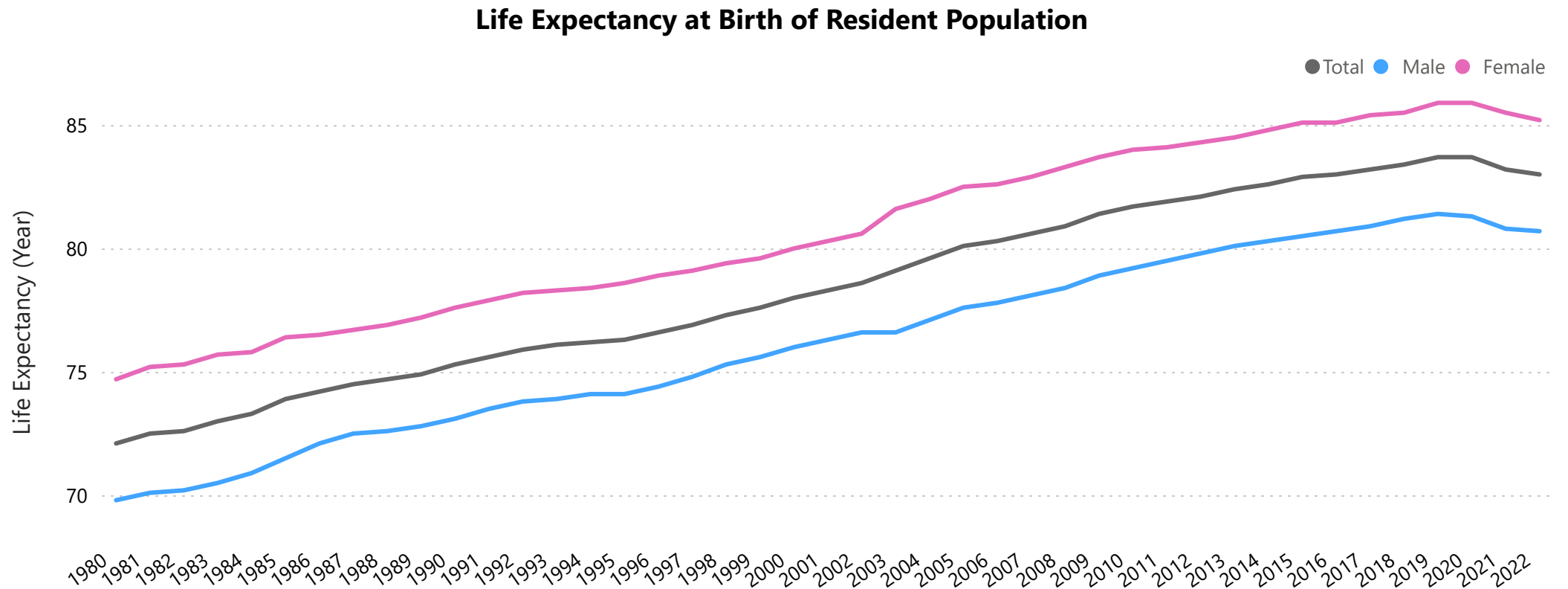
Scatter Plot

Line Chart

In a line chart, data points are joined with a line. This chart should only be used if the data are in the format of a time series, or in a sequence where the x-axis has an inherent order (e.g. date, stages of production, etc.).

The line chart below shows that total life expectancy of residents at birth has risen over time, from birth year 1980 to 2022. Both male and female life expectancy follow the same increasing trend.

Try to replicate the chart by using the data from the [SingStat Table Builder](#)!





Types of Graphs and Charts

Click to select

Bar Chart

Pie Chart /
Treemap

Line Chart

Scatter Plot

Scatter Plot

Scatter plots use markers to represent values of variables (typically two) of a record. The position of the dot along an axis represents the value of that variable for that record. Colouring and changing the size and shape of the points can also add further dimensions to the data. For example, markers could be colour-coded to represent different groups.

Scatter plots allow us to immediately visualise whether a relationship exists between two variables. In this scatter plot, each data point represents the value of these variables for each unit of analysis in each year.

There is a positive relationship between average real monthly earnings and mean years of schooling: the longer the years of schooling, the higher the average real monthly earnings. This means that these two variables are positively correlated. Variables are said to be correlated if one variable is likely to change if the other variable changes, but this does not necessarily imply that one variable causes the other.

