

How can a Stem-and-Leaf Plot be created using Python?

Authored by
stats writer

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A Stem-and-Leaf Plot is a graphical representation of numerical data that shows the distribution of the data. It is commonly used in statistics to quickly and easily visualize data. In Python, a Stem-and-Leaf Plot can be created by using the matplotlib library and the stem_graph function. First, the data needs to be organized into stems (the leading digit) and leaves (the remaining digits). Then, the stem_graph function can be used to plot the data, with the stems as the x-axis and the leaves as the y-axis. This creates a visual representation of the data, making it easier to identify patterns and outliers. Additionally, the stem_graph function allows for customization, such as adding a title, labels, and changing the color and style of the plot. Overall, using Python to create a Stem-and-Leaf Plot provides a simple and efficient way to analyze and present numerical data.

Create a Stem-and-Leaf Plot in Python

A stem-and-leaf plot is a chart that displays data by splitting up each value in a dataset into a *stem* and a *leaf*. It's a unique plot because it helps us visualize the shape of a distribution while still displaying the raw individual data values.

This tutorial explains how to create a stem-and-leaf plot in Python.

Example: Stem-and-Leaf Plot in Python

Suppose we have the following dataset in Python:

X =

To create a stem-and-leaf plot for this dataset, we can use the stemgraphic library:

pip install stemgraphic

Once this is installed, we can use the following code to create a stem-and-leaf plot for our dataset:

```
import stemgraphic
```

```
#create stem-and-leaf plot
```

```
fig, ax = stemgraphic.stem_graphic(x)
```



The way to interpret this plot is as follows:

The number in the red box at the bottom of the plot displays the minimum number in the dataset (32). The number in the red box at the top of the plot displays the maximum number in the dataset (62). The numbers in the far left display the aggregated count of values in the

plot. For example, the first row contains 2 aggregated values, the second row contains 3 aggregated values, the third row contains 5 aggregated values, and so on. The numbers in the middle column display the *stems*, which are 3, 4, 5, and 6. The numbers in the far right column display the *leaves*.

This single plot provides us with a ton of information about the distribution of values in this dataset.

An Introduction to Stem-and-Leaf Plots

Stem-and-Leaf Plot Generator