In a box plot (also known as a box-and-whisker plot), the lines represent different summary statistics that help visualize the distribution of a dataset. Here's what the lines in a box plot typically represent:

1. **Box (Interquartile Range, IQR):** The central rectangle in the plot represents the interquartile range (IQR), which is the range between the first quartile (25th percentile) and the third quartile (75th percentile) of the data. The box contains 50% of the data, and its length gives an idea of the spread or variability of the middle 50% of the data.
2. **Median (Q2):** The line inside the box represents the median, which is the value that separates the dataset into two equal halves. It's also known as the second quartile (Q2) or the 50th percentile.
3. **Whiskers:** The "whiskers" extend from the edges of the box to the minimum and maximum values within a certain range. The exact length and calculation of the whiskers can vary depending on the plot variant and statistical considerations.
4. **Outliers:** Points outside the whiskers, referred to as "outliers," are individual data points that are significantly different from the majority of the data. Outliers can provide insights into the presence of extreme values or potential anomalies in the dataset.

The box plot is a great tool for visualizing the distribution of data, identifying skewness, spotting outliers, and comparing the spread and central tendency of different groups or variables. Different types of box plots, such as notched box plots or violin plots, offer variations that provide additional information about the data distribution and statistical properties.