### Example: Kernel Density Estimation

We'll use the built-in faithful dataset, which contains the eruption times of the Old Faithful geyser in Yellowstone National Park.

### Explanation

**Loading Data**:

* 1. The faithful dataset is loaded, and the eruptions column is extracted, which contains the eruption times.

**Kernel Density Estimation**:

* 1. The density function is used to perform KDE on the eruptions data. This function returns an object of class "density" that contains the estimated density values.

**Plotting**:

* 1. The plot function is used to visualize the kernel density estimate. The rug function adds small ticks at the data points to give an idea of the data distribution.

### Conclusion

Using the density function in R provides an easy and efficient way to perform kernel density estimation. This method gives a smooth estimate of the probability density function, which is particularly useful for understanding the distribution of continuous data.