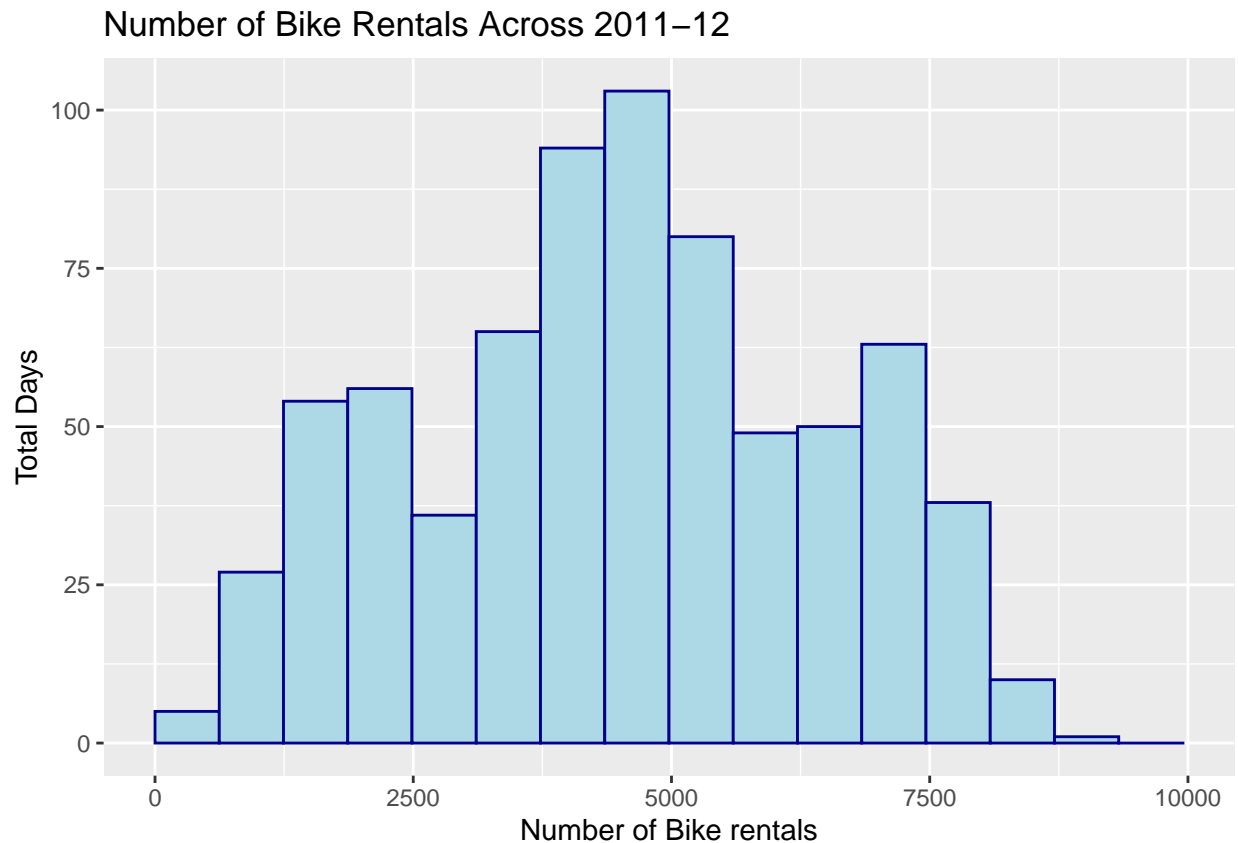# Assignment 1 cnt

1. Identify the variable type (quantitative (continuous or discrete), categorical (nominal, binary, or ordinal). Explain your reasoning.

The number of bike rentals (cnt) is a discrete quantitative variable. The number of bike rentals can not take on all numbers on an interval as it is not possible to rent half a bike thus it can not be classified as a continuous variable.

2. Using R, create an appropriate graphic showing the distribution of the data for the respective variable. Remember labels and titles.

Number of Bike Rentals Across 2011−12

3. Discuss the distribution for each variable based on the graphs in #2.

• **For categorical, compare counts or proportions between categories. Do they look as you'd expect, given the definitions of the variables?**

• **For quantitative, discuss the approximate center, range, shape, and outliers (if any).**

The number of bike rentals has a mean 4504.3488372 (median: 4548). With a minimum of 22 and max 8714. The distribution is roughly normal and from the 1.5 * IQR rule there are no possible outliers.

4. Compute appropriate summary statistics for each variable.

```
## Summary Statistics for Bike Rentals
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##      22    3152    4548    4504    5956    8714
## Standard Deviation =
## [1] 1937.211
## Number of Observations
## [1] 731
```