



STATISTICS

THE ART & SCIENCE OF LEARNING FROM DATA

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Demonstration of R Code to get Barcharts and Piecharts

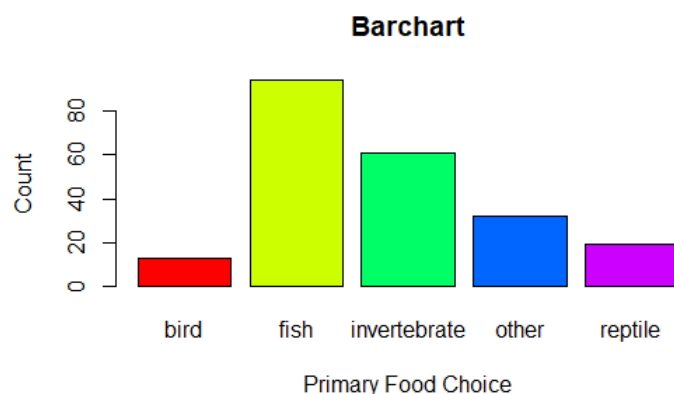
Chapter 2

Exercise 2.11: What do alligators eat?

```
> # Provide the url for the data:
> path <- 'https://raw.githubusercontent.com/artofstat/data/master/alligatorfood.csv'
> # Read in the file:
> foodchoice <- read.csv(path) # this fetches the data from the url
> # Inspect first few rows:
> head(foodchoice)
  lake gender size food
1 Hancock  male <2.3 fish
2 Hancock  male <2.3 fish
3 Hancock  male <2.3 fish
4 Hancock  male <2.3 fish
5 Hancock  male <2.3 fish
6 Hancock  male <2.3 fish
> # Create Frequency Table:
> freqtable <- table(foodchoice$food)
> freqtable

      bird      fish inverttebrate      other      reptile
      13      94          61          32          19
> # Get proportions:
> prop.table(freqtable)

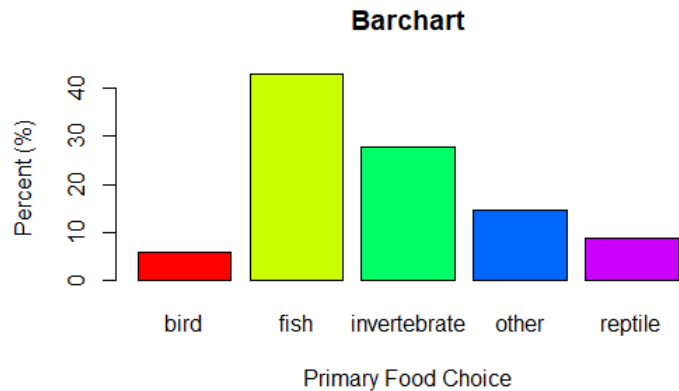
      bird      fish inverttebrate      other      reptile
0.05936073 0.42922374 0.27853881 0.14611872 0.08675799
> # Create barchart, add labels and color:
> barplot(freqtable, main='Barchart', xlab='Primary Food Choice', ylab='Count', col=rainbow(5))
```



```

> # Using Percentages instead of counts:
> perctable <- 100*prop.table(freqtable) # percentages
> barplot(perctable, main='Barchart', xlab='Primary Food Choice', ylab
='Percent (%)', col=rainbow(5)) # Barchart with Percentages

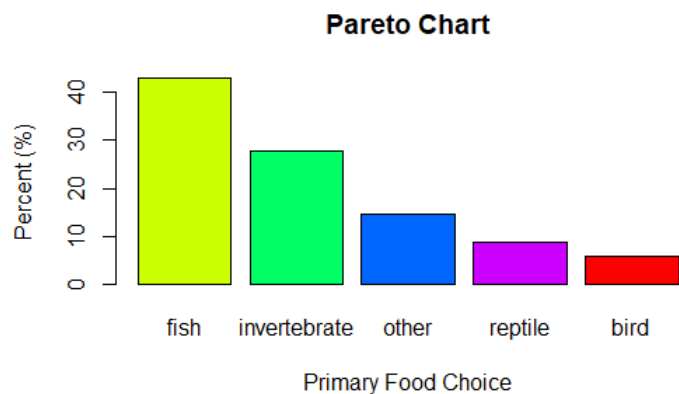
```



```

> # Pareto Chart, also using Percent:
> index <- c(2,3,4,5,1) # row index sorted in terms of most common
> barplot(perctable[index], main='Pareto Chart', xlab='Primary Food
Choice', ylab='Percent (%)', col=rainbow(5)[index])

```



```

> # Pie Chart:
> pie(freqtable, main='Piechart', col=rainbow(5))

```

