lesson02d_3458_561974_iris.R

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```
data(iris)
summary(iris)
```

```
##   Sepal.Length    Sepal.Width     Petal.Length    Petal.Width
##  Min.   :4.300   Min.   :2.000   Min.   :1.000   Min.   :0.100
##  1st Qu.:5.100   1st Qu.:2.800   1st Qu.:1.600   1st Qu.:0.300
##  Median :5.800   Median :3.000   Median :4.350   Median :1.300
##  Mean   :5.843   Mean   :3.057   Mean   :3.758   Mean   :1.199
##  3rd Qu.:6.400   3rd Qu.:3.300   3rd Qu.:5.100   3rd Qu.:1.800
##  Max.   :7.900   Max.   :4.400   Max.   :6.900   Max.   :2.500
##        Species
##  setosa    :50
##  versicolor:50
##  virginica :50
##
##
##
```

```
nrow(iris)
```

```
## [1] 150
```

```
ncol(iris)
```

```
## [1] 5
```

```
unique(iris$Species)
```

```
## [1] setosa     versicolor virginica
## Levels: setosa versicolor virginica
```

```
table(iris$Species)
```

```
##
##     setosa versicolor  virginica
##         50         50         50
```

```
mean(iris$Sepal.Length)
```

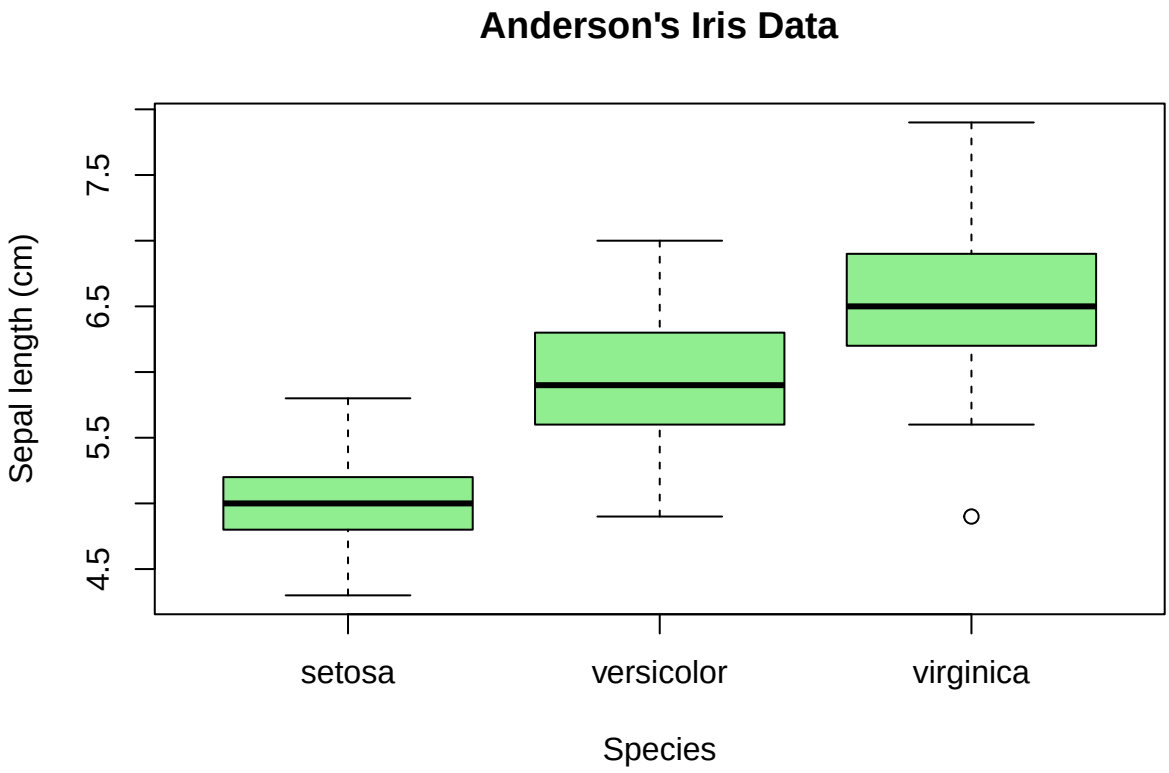
```
## [1] 5.843333
```

```
aggregate(Sepal.Length~Species,
          data = iris,
          FUN = mean)
```

```
##      Species Sepal.Length
## 1     setosa        5.006
```

```
## 2 versicolor        5.936
## 3  virginica        6.588
```

```
boxplot(iris$Sepal.Length ~ iris$Species,
        col = "lightgreen",
        xlab = "Species",
        ylab = "Sepal length (cm)",
        main = "Anderson's Iris Data")
```




```
par(mfrow = c(3, 1))

setosa <- iris[iris$Species == "setosa",]
versicolor <- iris[iris$Species == "versicolor",]
virginica <- iris[iris$Species == "virginica",]

hist(setosa$Sepal.Length,
     xlab = "Sepal length (cm)",
     main = "setosa",
     ylim = c(0,12),
     breaks = c(seq(4.3,8, 0.2)),
     xlim = c(4.3, 8))
grid()

hist(versicolor$Sepal.Length,
     xlab = "Sepal length (cm)",
     main = "versicolor",
     ylim = c(0,12),
     breaks = c(seq(4.3,8, 0.2)),
     xlim = c(4.3, 8))
grid()
```

```
hist(virginica$Sepal.Length,
     xlab = "Sepal length (cm)",
     main = "versicolor",
     ylim = c(0,12),
     breaks = c(seq(4.3, 8, 0.2)),
     xlim = c(4.3, 8))
grid()
```