Tree Analisys

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Introduction

In this assisment, we analyse the characteristic of both Black Cherry Trees and Loblobly Pine Trees combining two different dataframes built-in in R Studio.

The first data frame cointans information about the growth of Loblolly trees. This specie is common in the Southern US. According to the data, loblolly pine tress has on average 32 fts (see Table 1). On the other hand, Prunus serotina, commonly called black cherry trees are also native in North America but they are on average two times bigger than Loblolly trees. Their hight on average is 76 fts (see Table 2).

Table 1.Loblolly trees summary Statistics

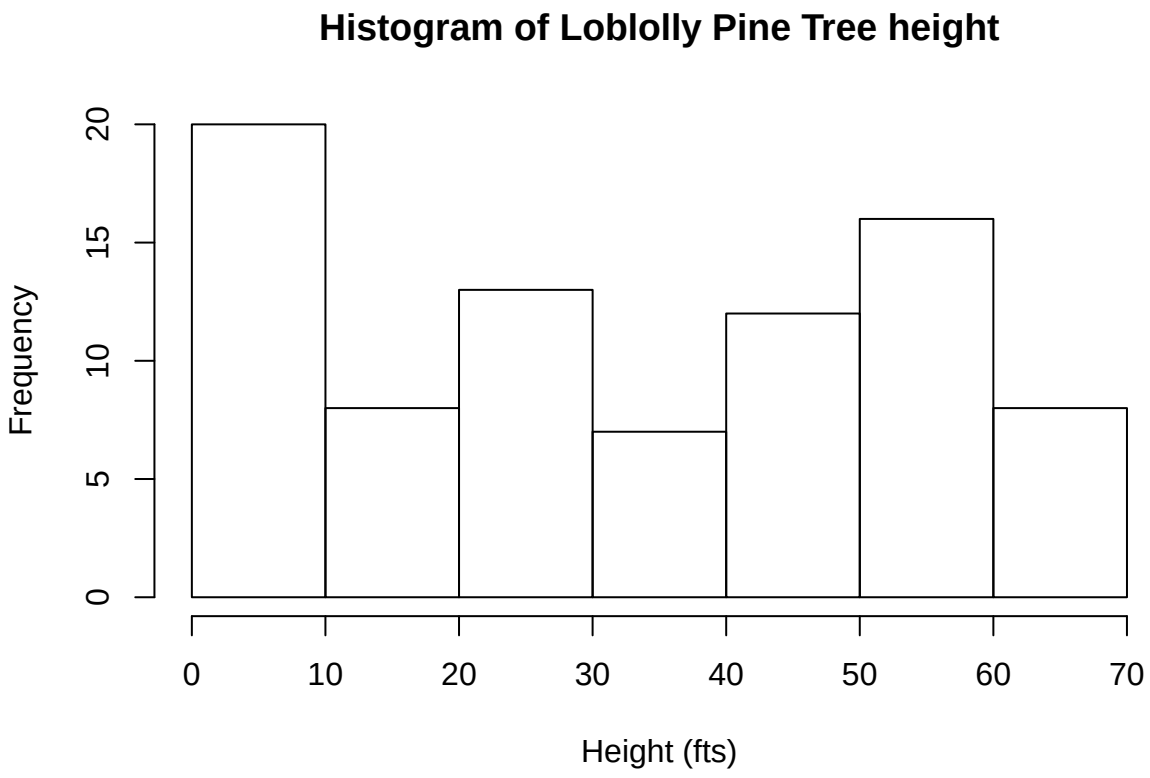
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    3.46   10.47   34.00   32.36   51.36   64.10
```

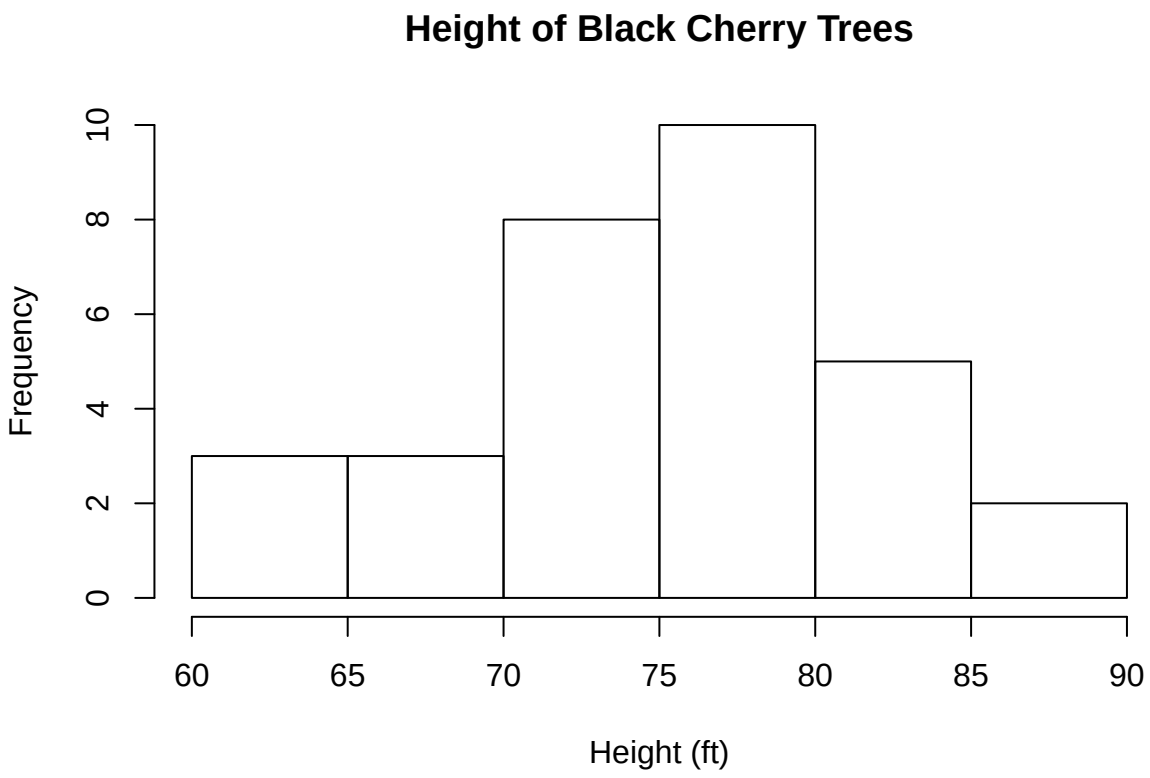
Table 2. Cherry trees summary Statistics

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##      63      72      76      76      80      87
```

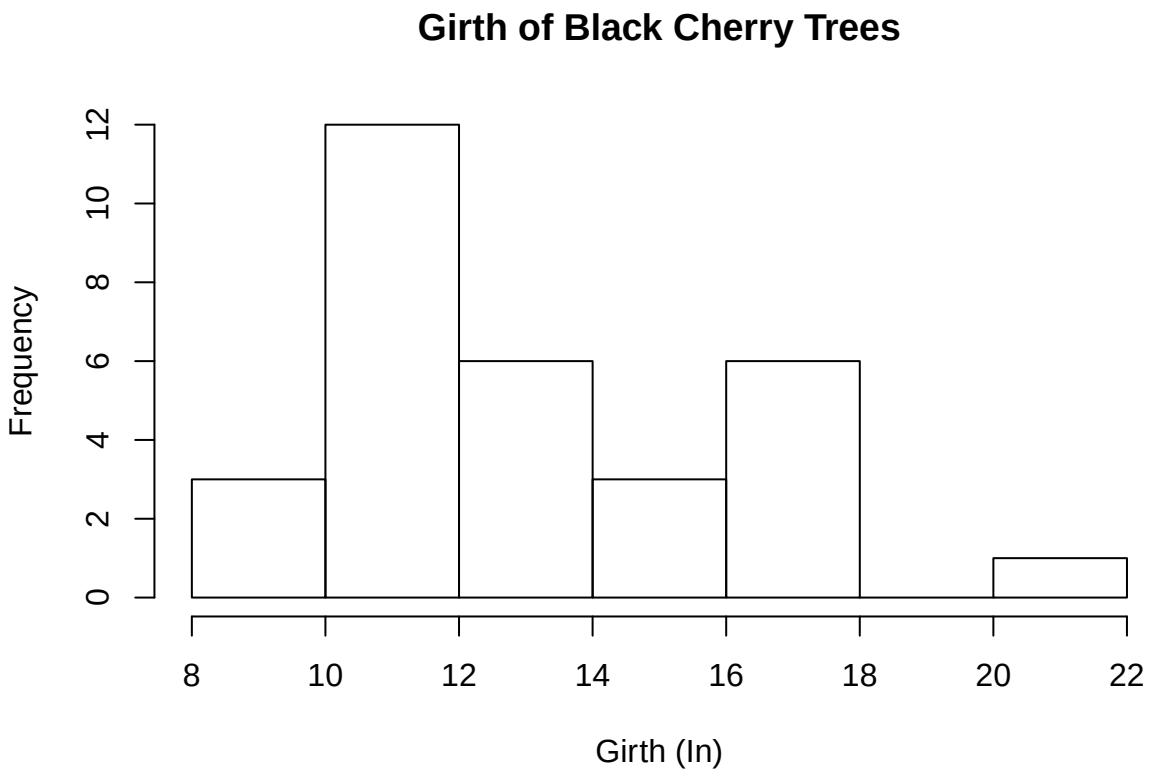
Tree Height Distribution

A major diference between Loblolly and Cherry is the height distribution. While, Lobloly trees height can range from 3 to 70 fts, for Cherry trees the height ranges from 60 to 90 fts. The variance of loblolly tree's height is 427.3979334 and a standard deviation of 20.6736048. On the other hand, The variance of Cherry tree's height is 40.6 and a standard deviation of 6.3718129


Histogram of Loblolly Pine Tree height
Frequency
0
5
10
15
20
0
10
20
30
40
50
60
70
Height (fts)

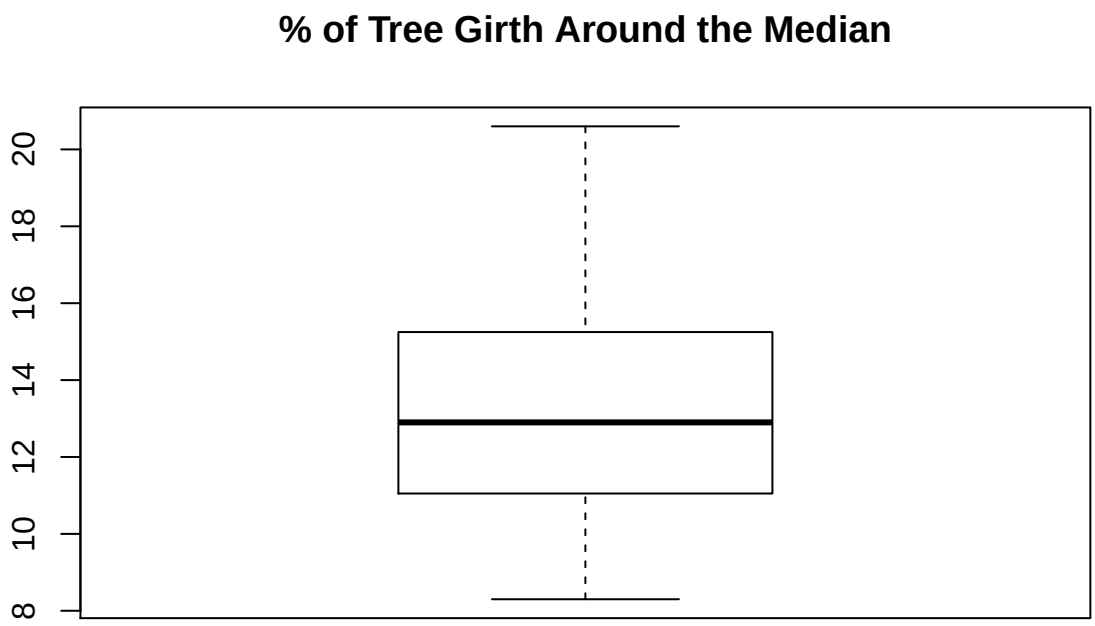

Height of Black Cherry Trees
Frequency
0
2
4
6
8
10
60
65
70
75
80
85
90
Height (ft)

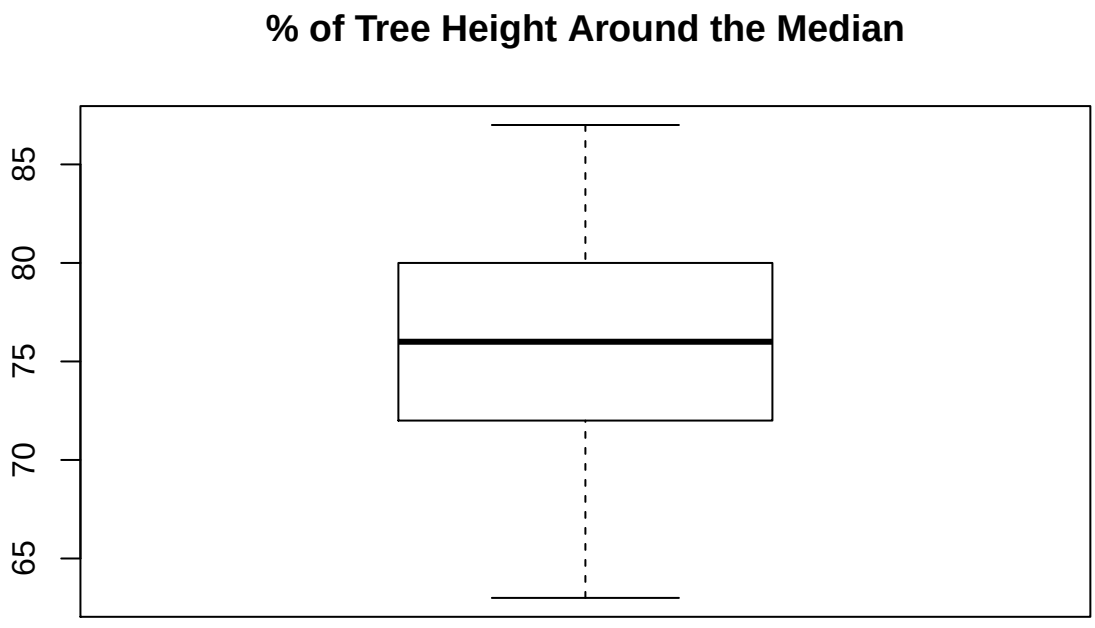
Girth Distribution

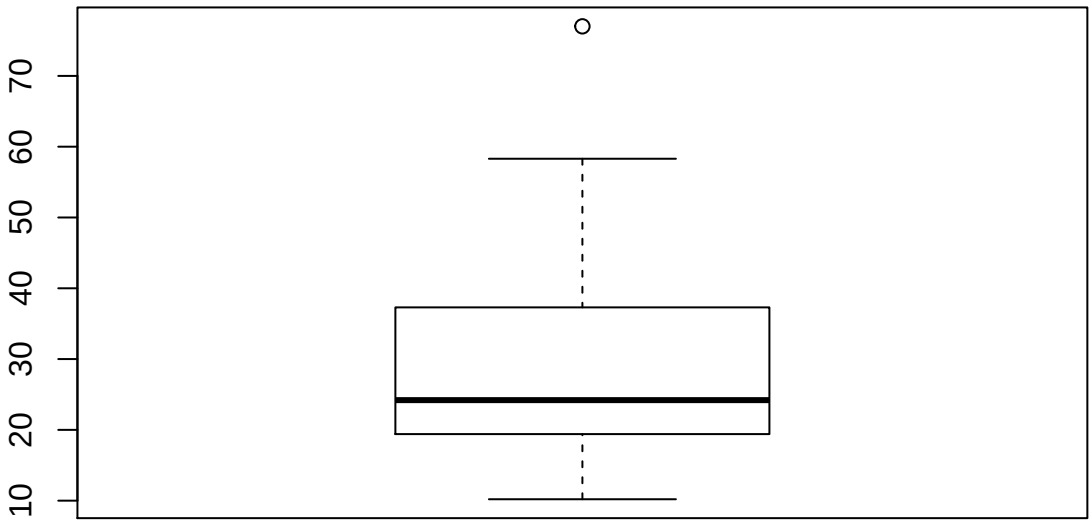


Box Plots

Box plots or whisker plots graphically ilustrates the groups of numerical data through quartiles. The bottom and top of the box are always the first and third quartiles and the band inside the box is the second quartile or the median.


% of Tree Girth Around the Median
8
10
12
14
16
18
20


% of Tree Height Around the Median
65
70
75
80
85


% of Tree Volume Around the Median
10
20
30
40
50
60
70