Assignment 4

Interactive Data Visualization

SS 20

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Computergraphics, Visualization & Image Processing

Topics:

Multi-Variate Data, Scatter Plot, Parallel Coordinates

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In Class

Assignment 4 – In Class

- Data Set "Leaves”
- Measurement results of the growth of leaves from three different types of trees at different growing periods

Type of tree	Age of Leaf	Length of Leaf	Width of Leaf
Maple	3 weeks	2.2 cm	1.8 cm
Maple	2 months	4.6 cm	5.5 cm
Maple	4 months	8.8 cm	10.0 cm
Aspen	3 weeks	1.2 cm	1.2 cm
Aspen	2 months	3.6 cm	3.6 cm
Aspen	4 months	7.5 cm	7.5 cm
Pear-Tree	3 weeks	3.2 cm	1.2 cm
Pear-Tree	2 months	7.0 cm	2.5 cm
Pear-Tree	4 months	11.0 cm	4.0 cm

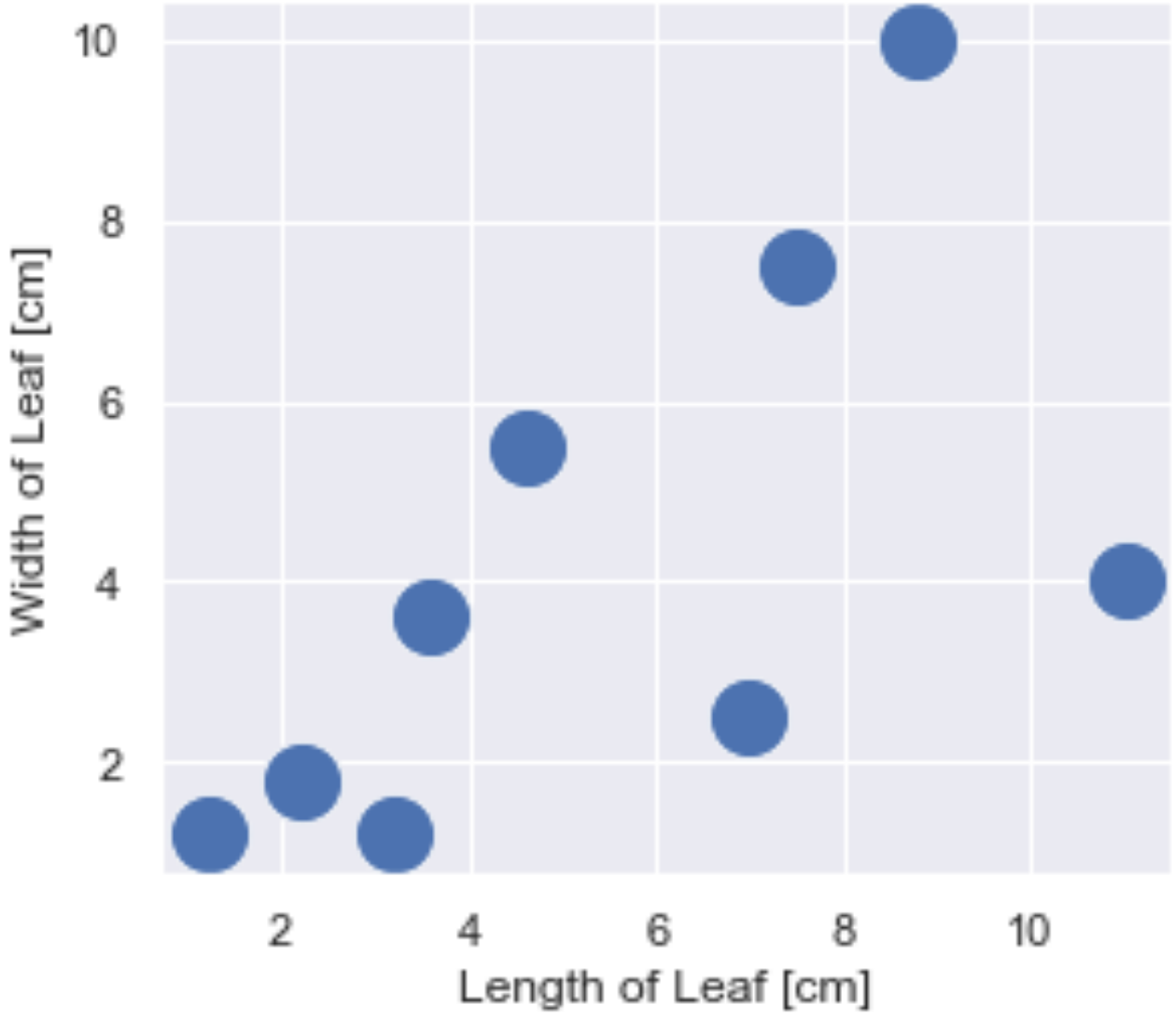
Assignment 4 – In Class

a) Set up the data model:
   Describe the characteristics of the data set “Leaves”.
b) Draw a scatter plot of length and width of leaves.
c) Visualize data set with scatter plot matrix.
d) Visualize data set with parallel coordinates.

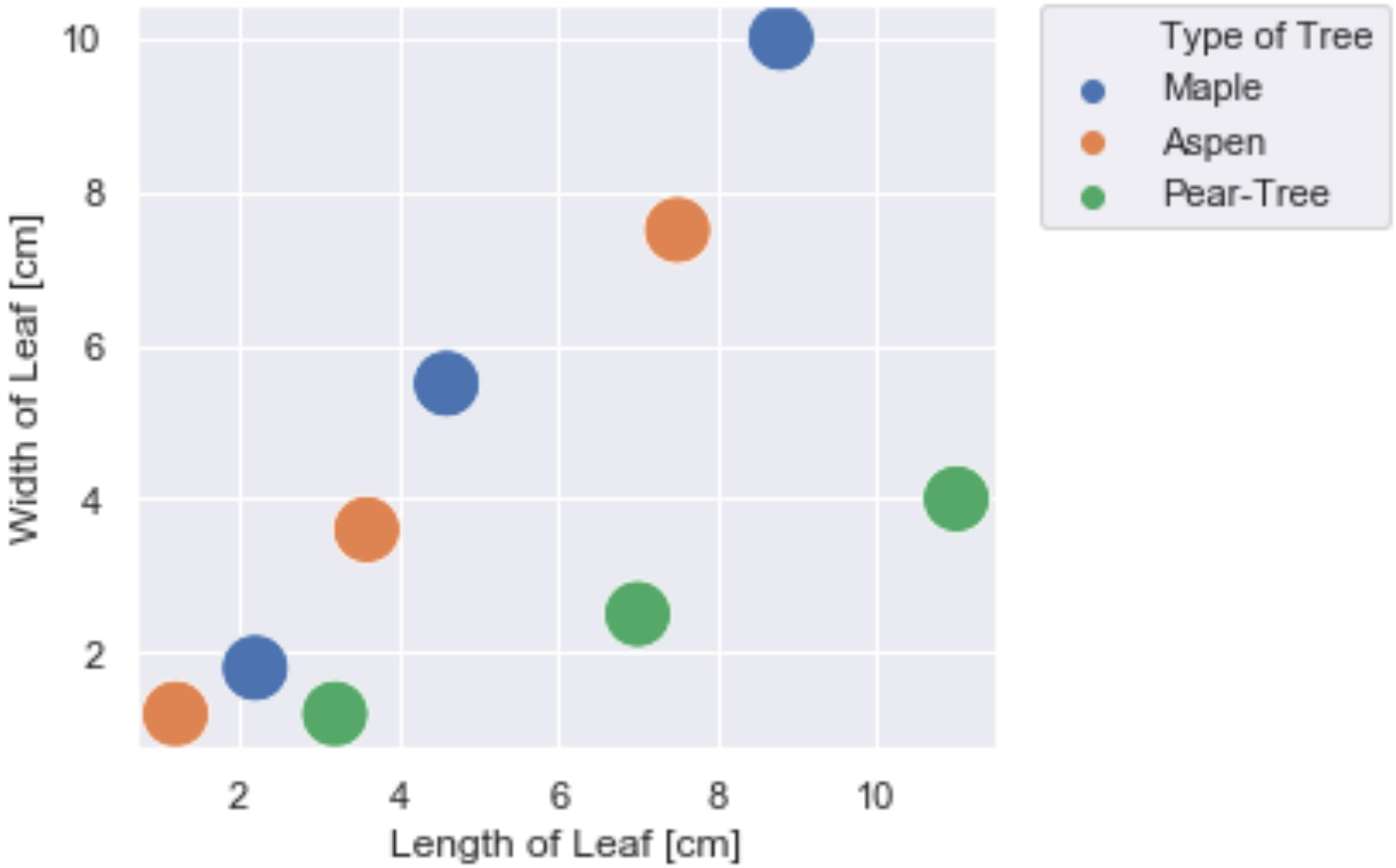
Assignment 4 – In Class a)

Type of Tree	Age of Leaf	Length of Leaf	Width of Leaf
Nominal data	Quantitative/ ordinal data	Quantitative data	Quantitative data

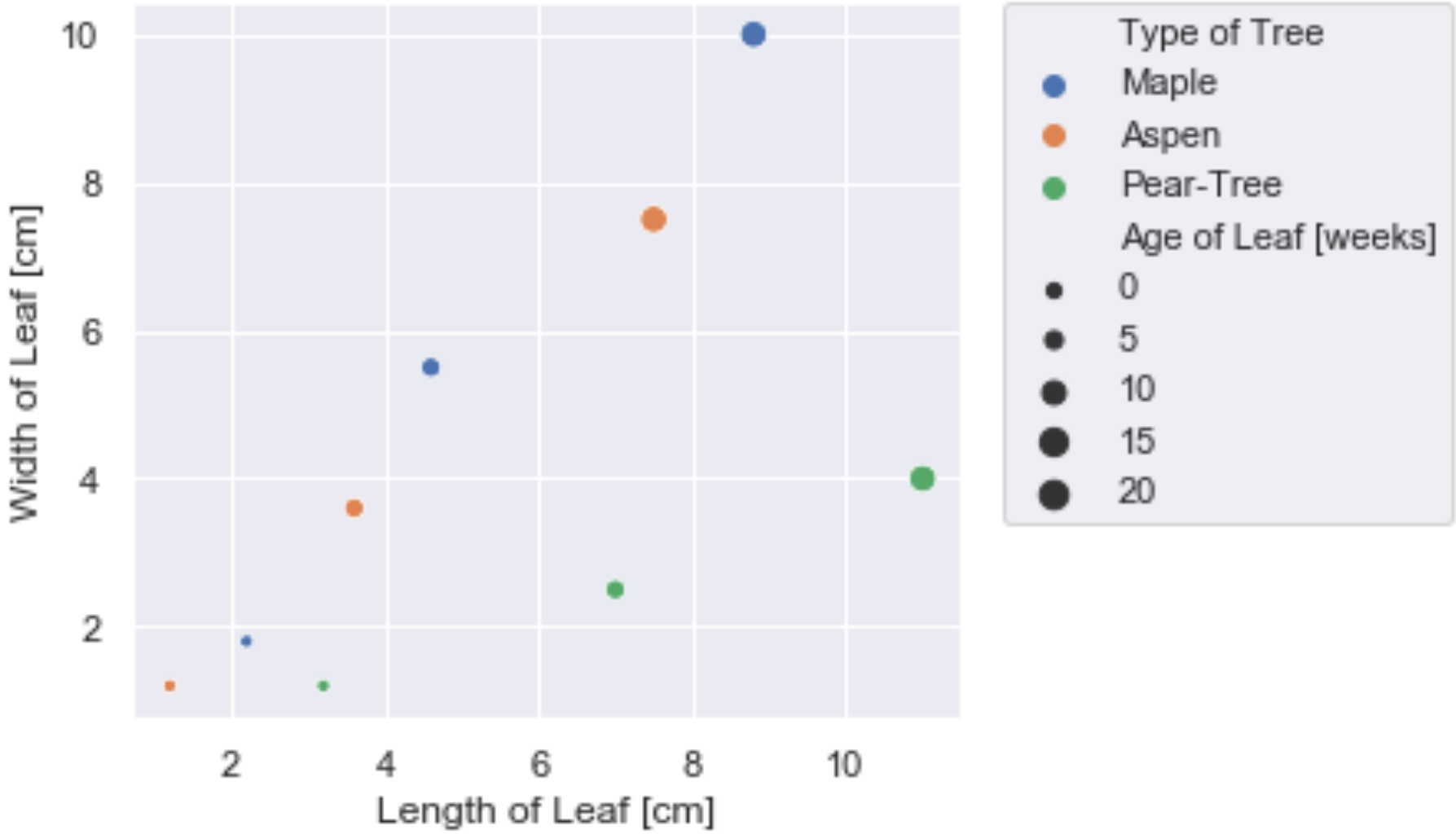
Assignment 4 – In Class b)



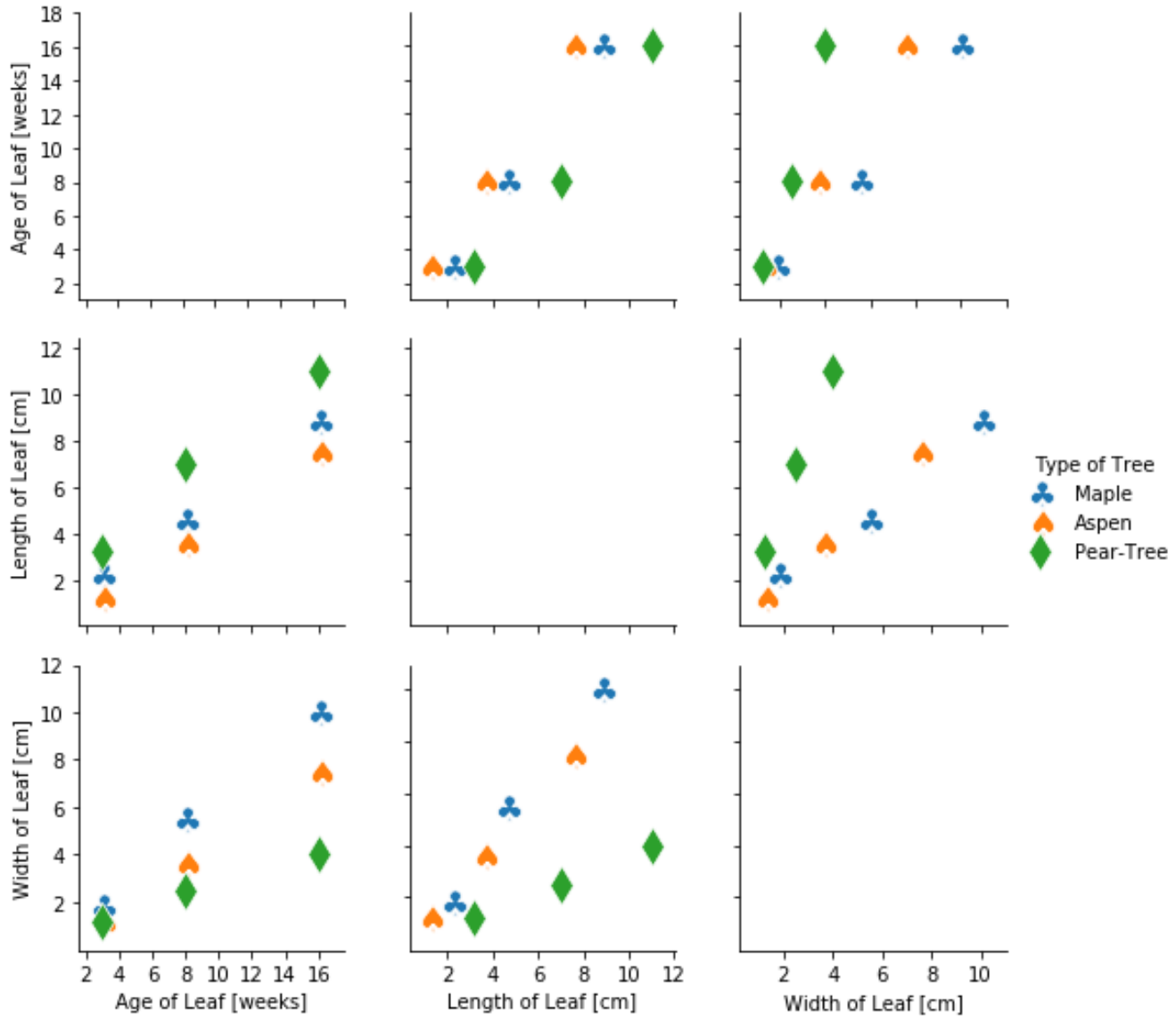
Assignment 4 – In Class b)



Assignment 4 – In Class b)

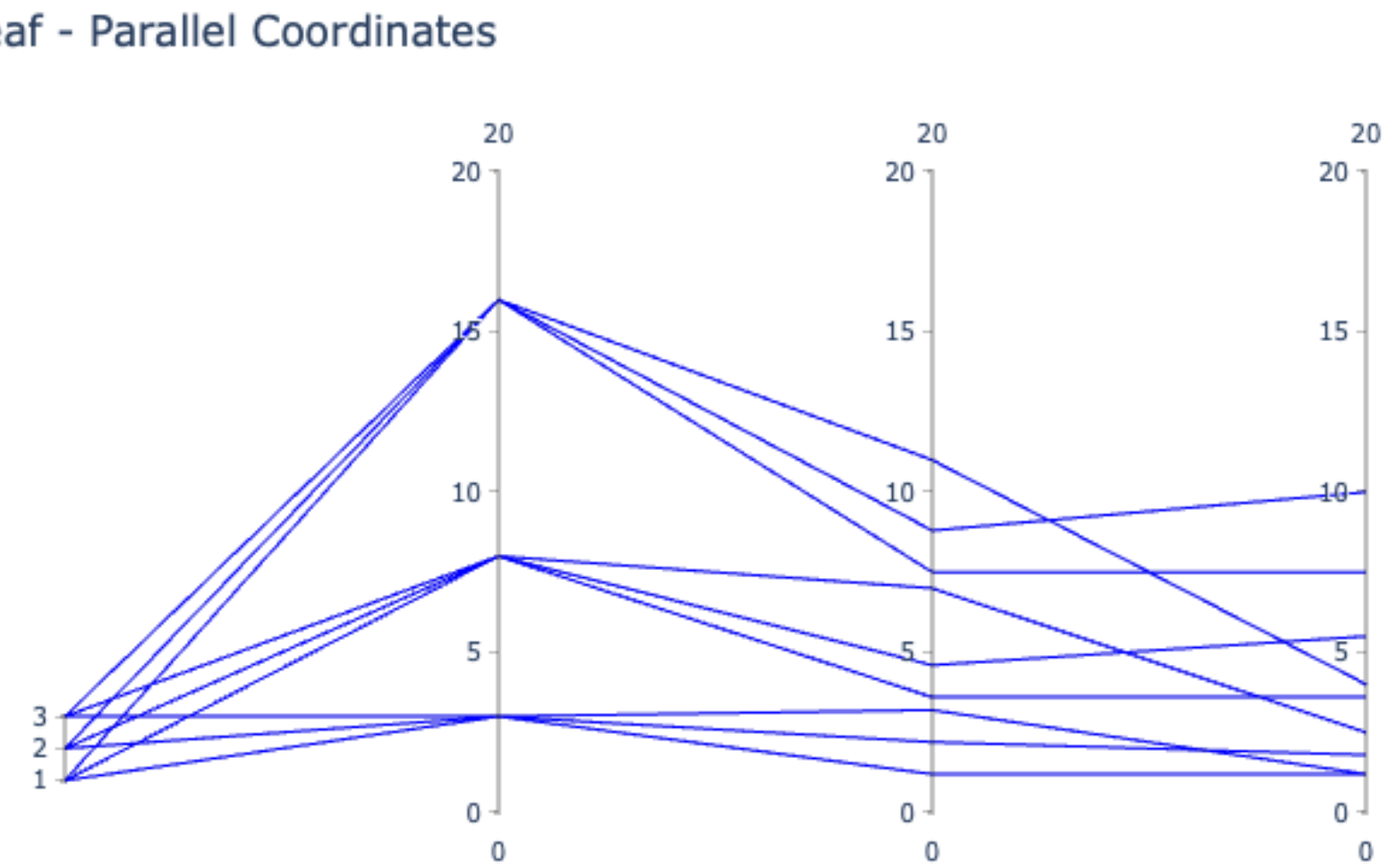


Assignment 4 – In Class c)



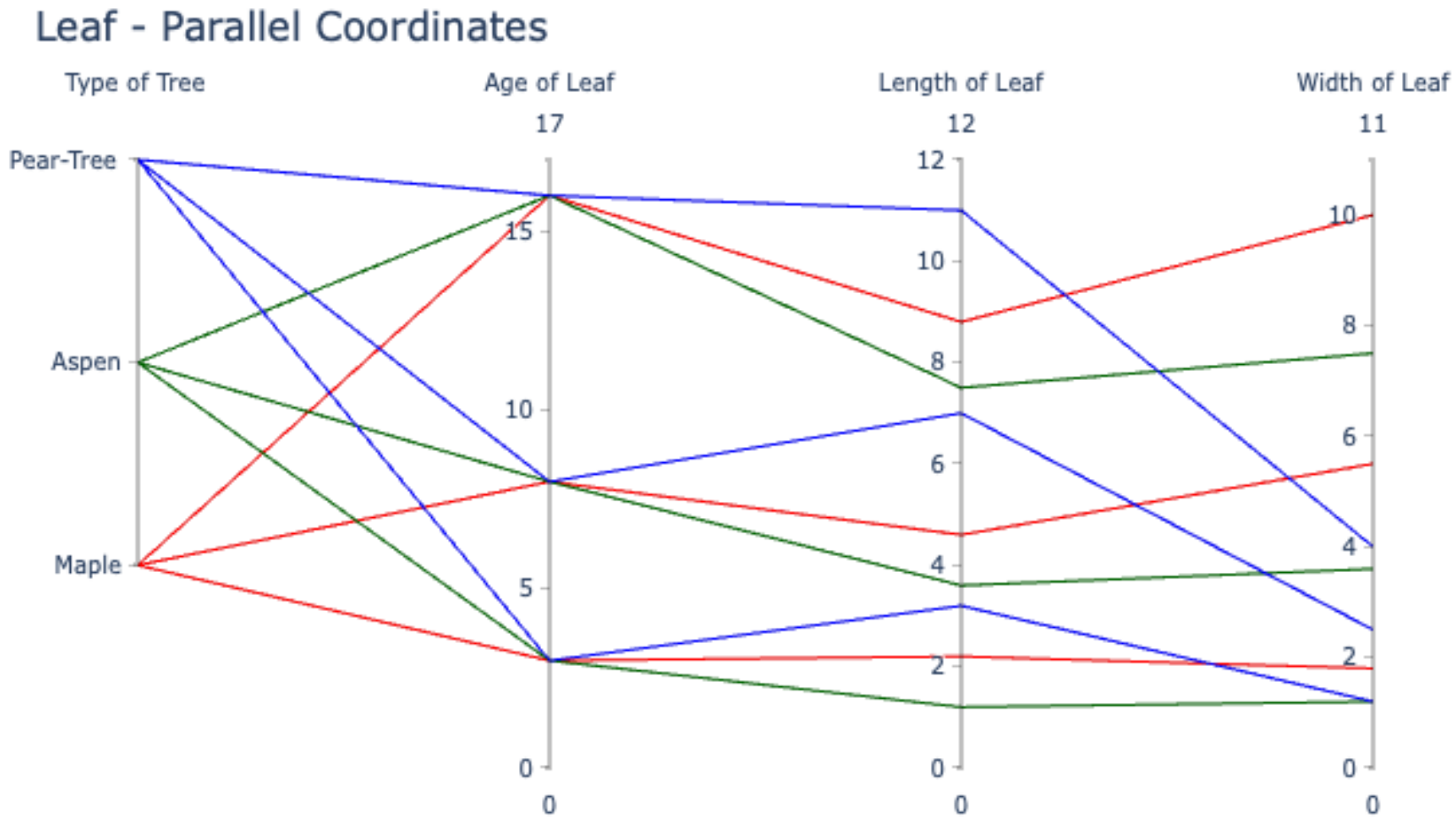
Assignment 4 – In Class d)

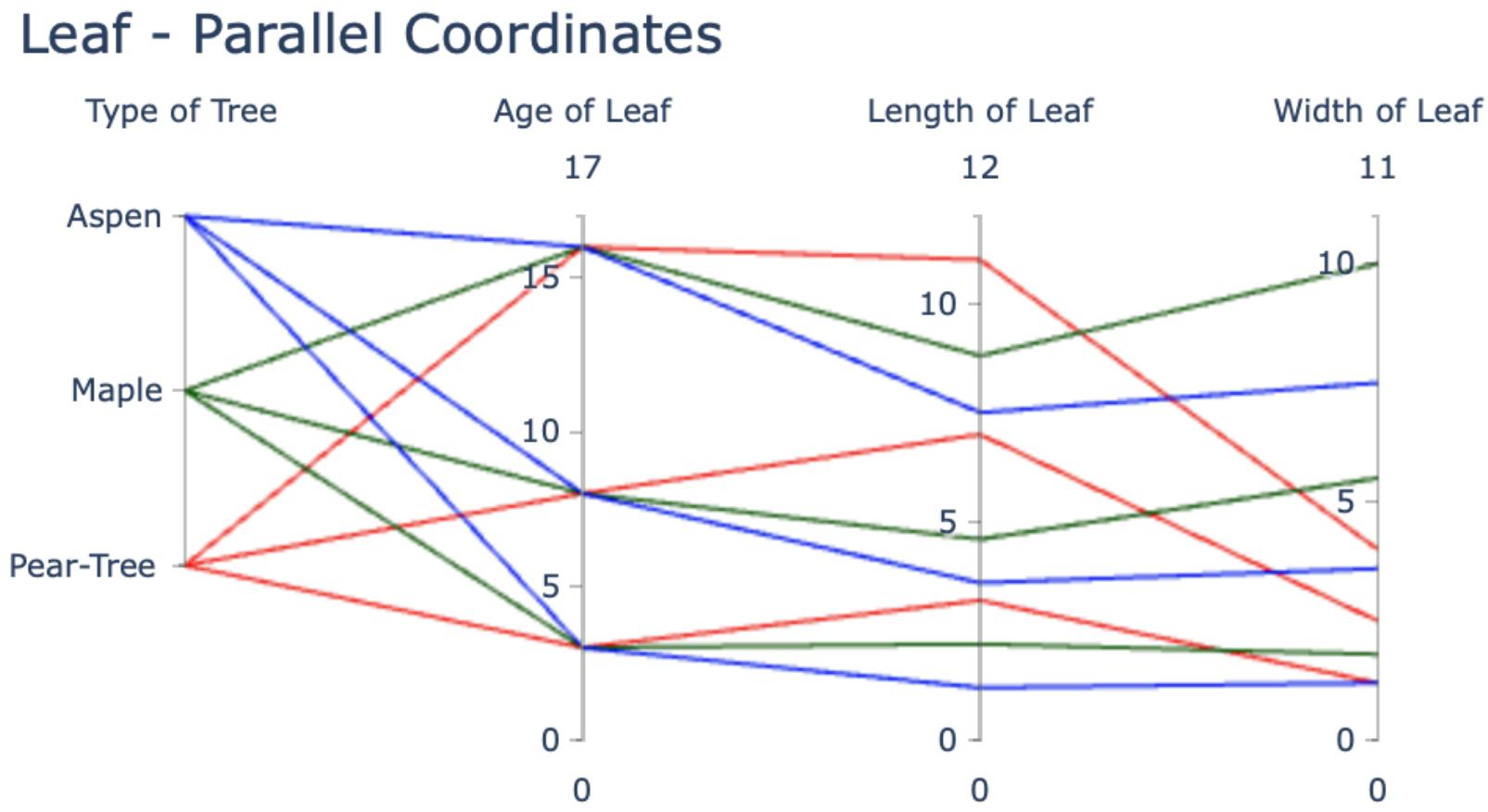
Bad solution:



Assignment 4 – In Class d)

Good solution:



Assignment 4 – In Class d)

Good solution: