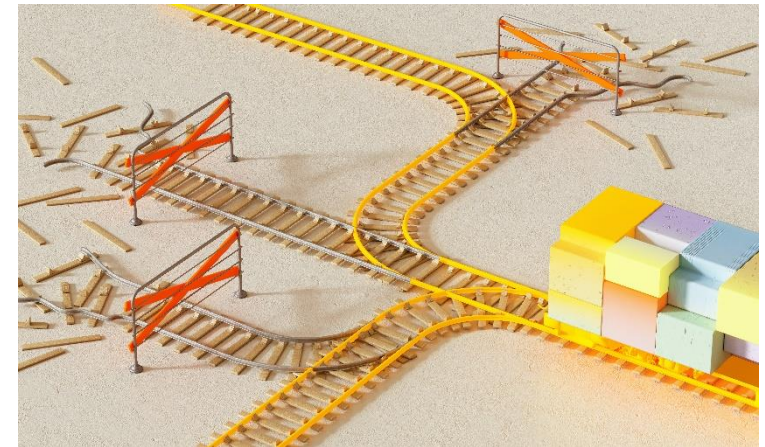
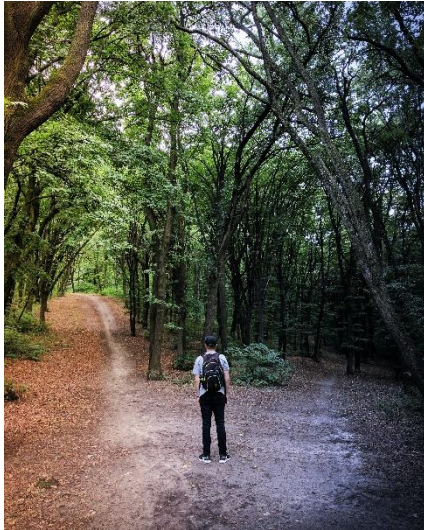
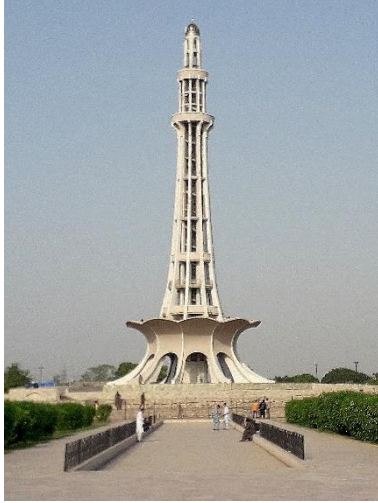


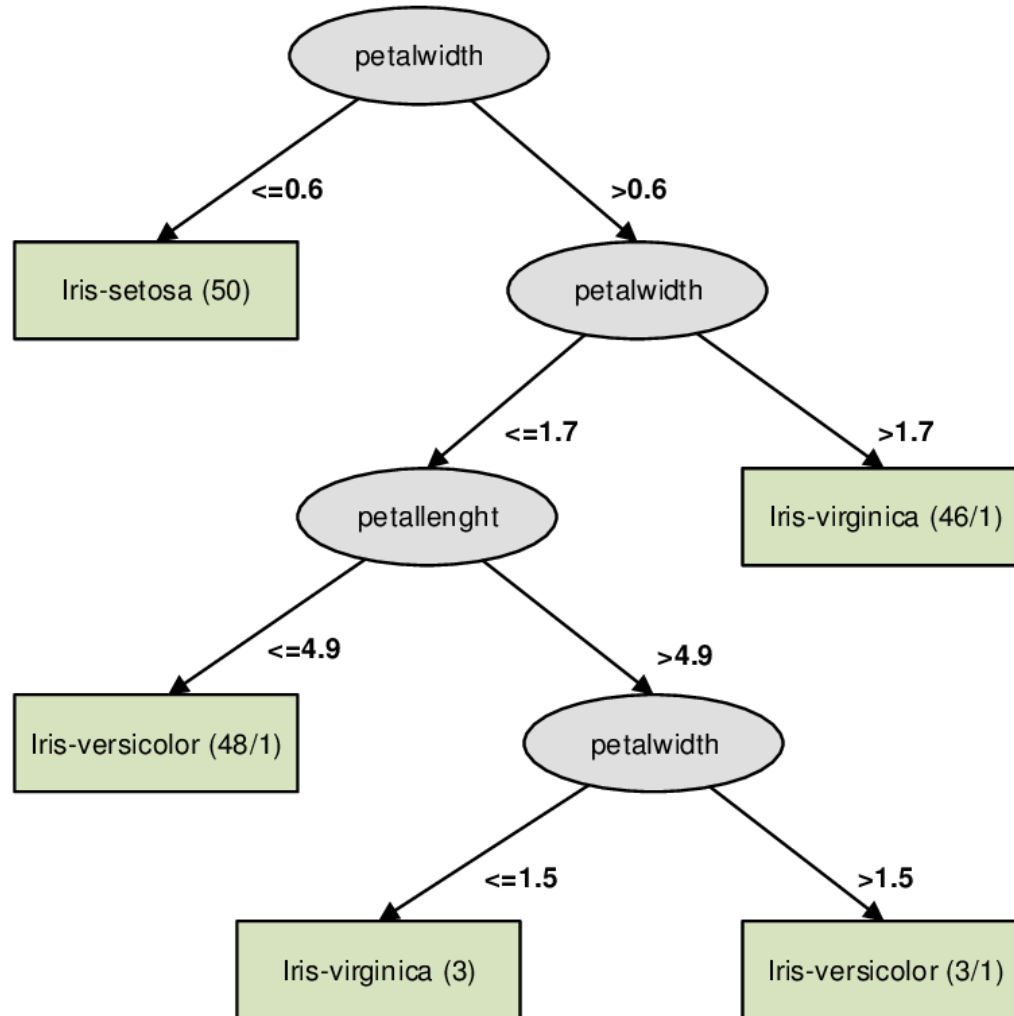
# Examples of Machine Learning Models

Dr. Muhammad Wasim

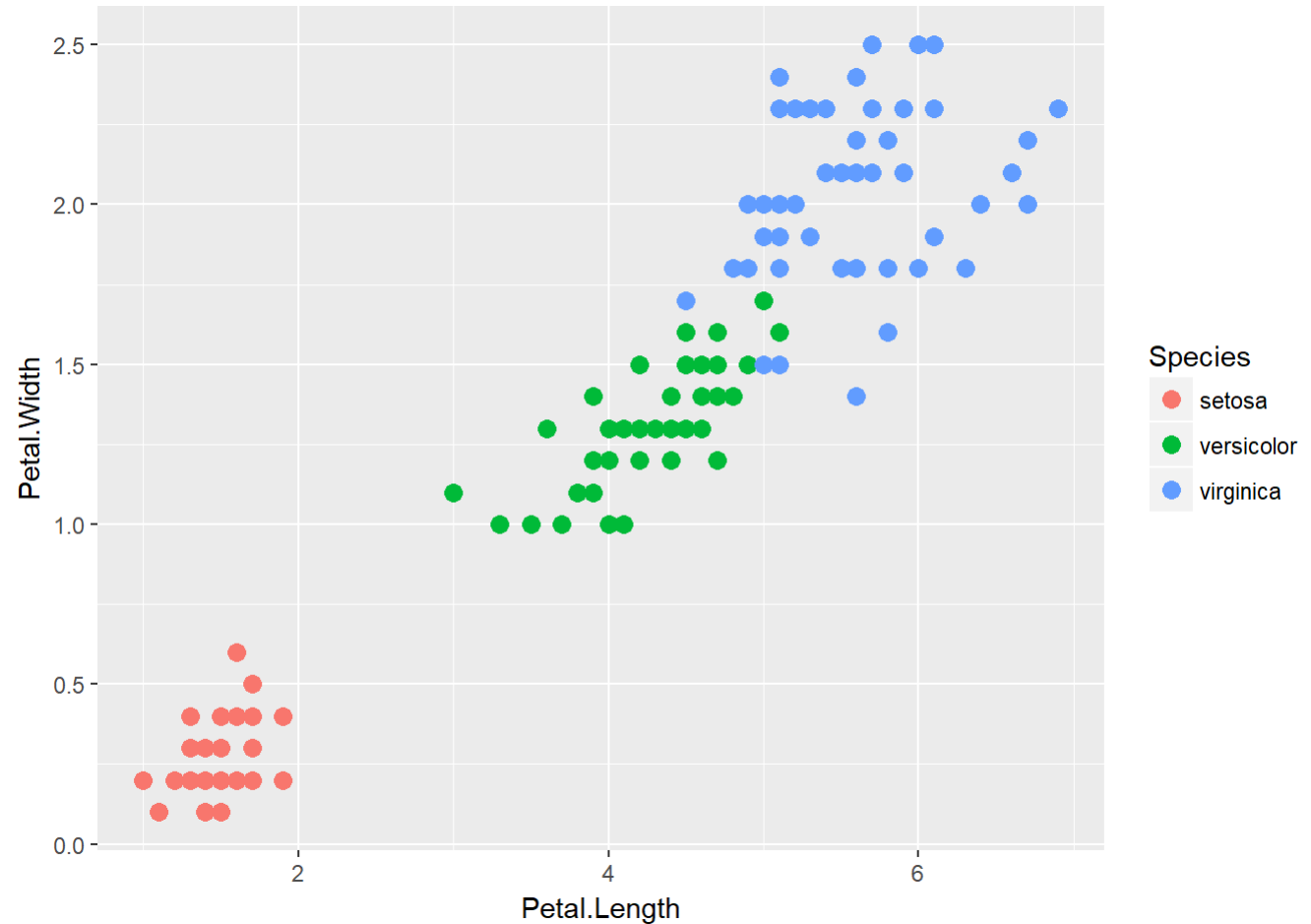
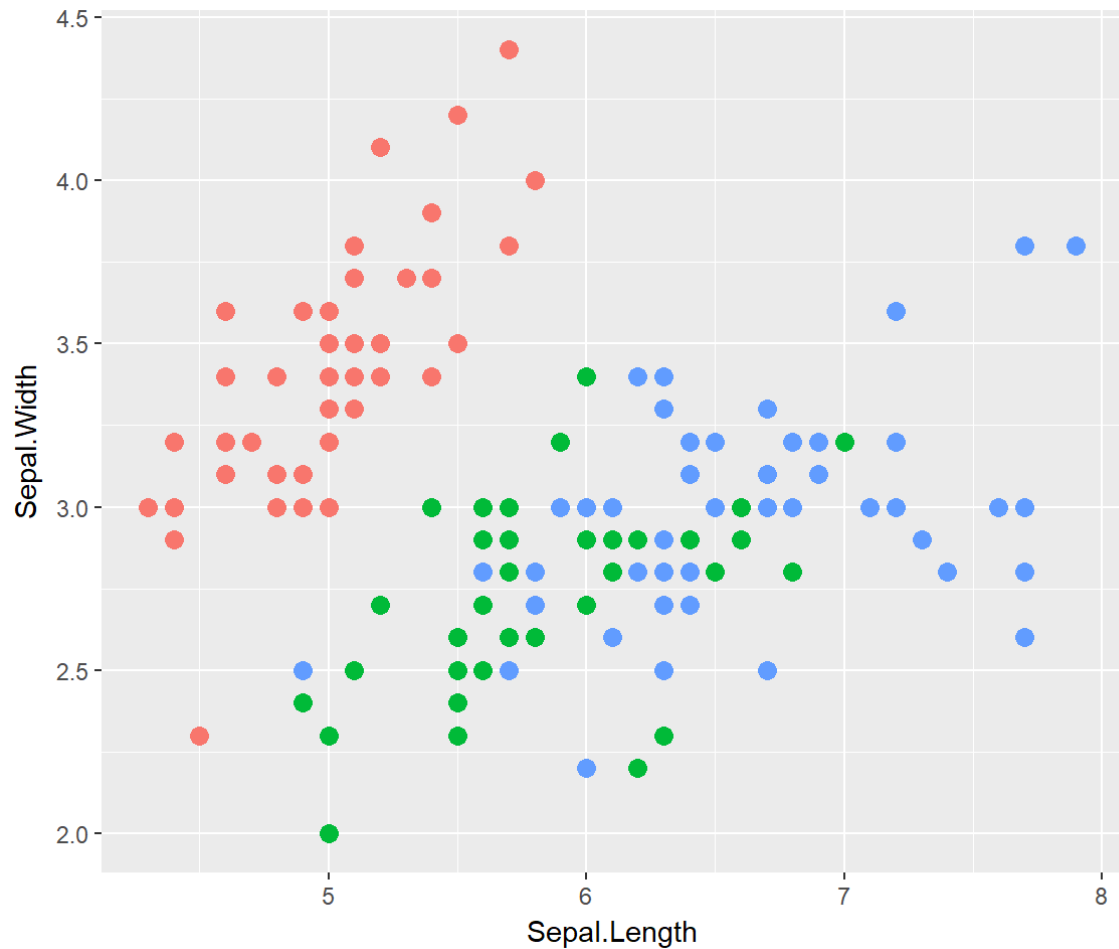
# What is a model?



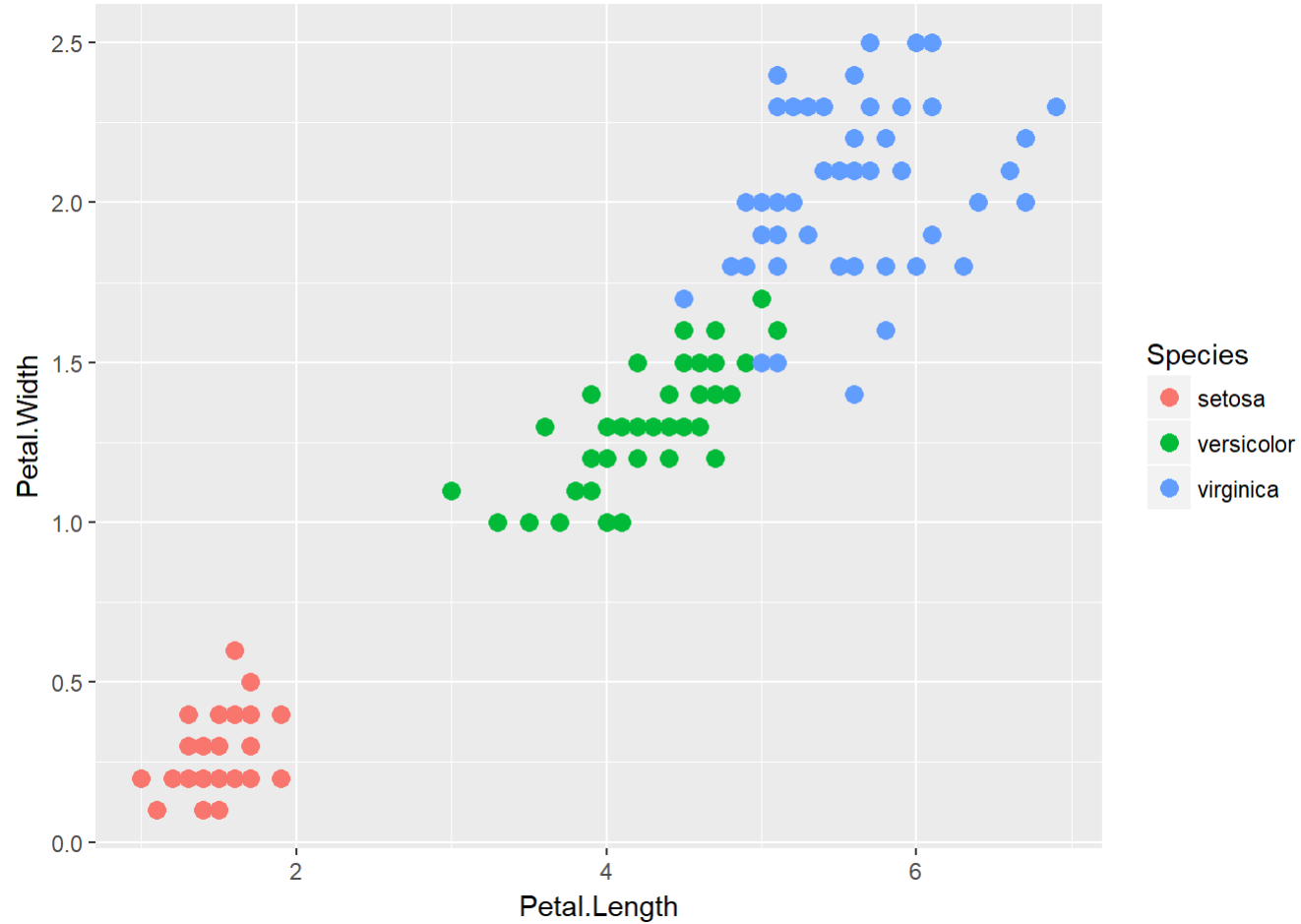
# ML Model: Decision Tree Model



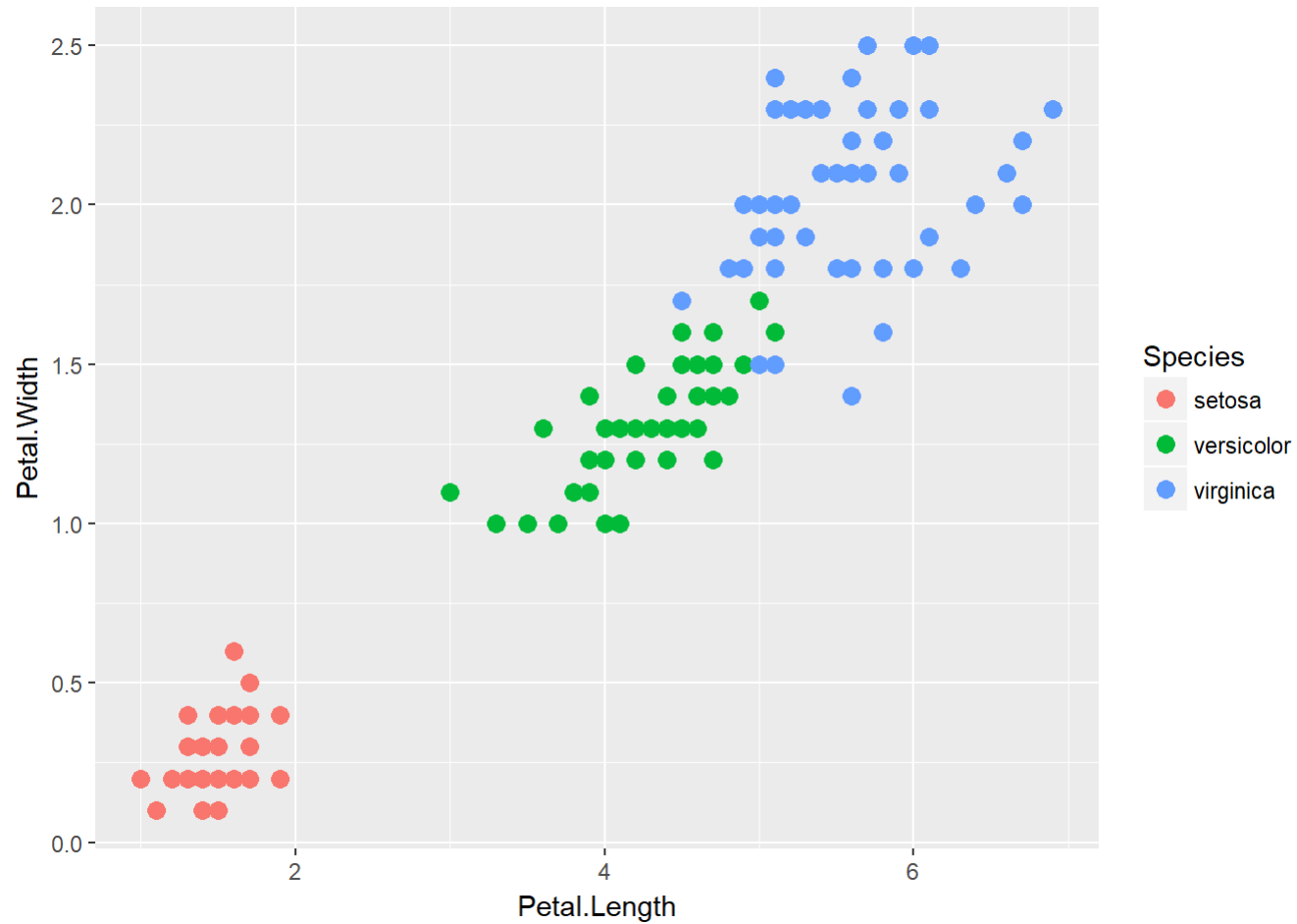
# Can we determine the label based on data distribution?



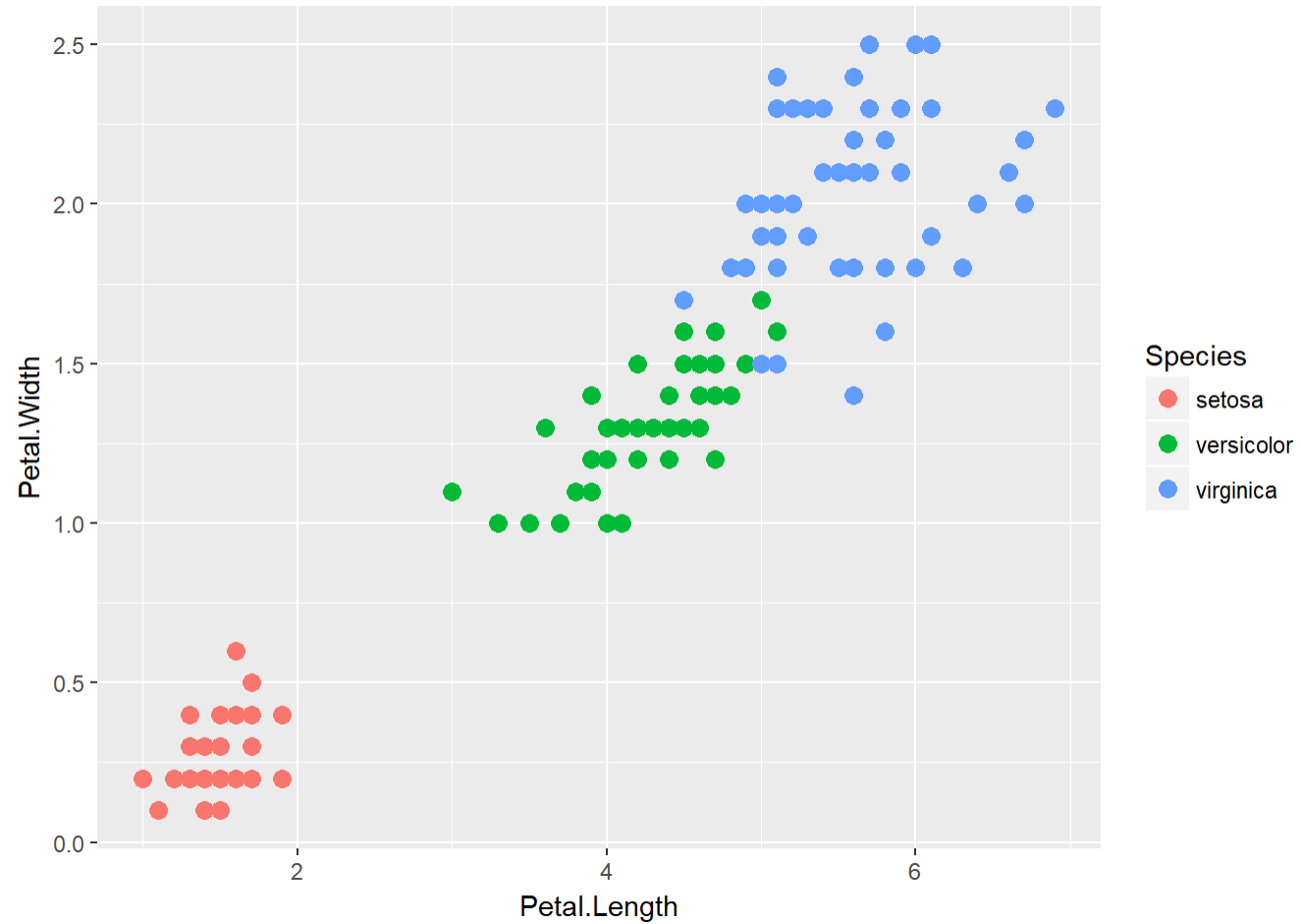
# ML Model: Logistic Regression



# ML Model: Support Vector Machine



# ML Model: K-nearest neighbors



# ML Model: Naïve Bayes

x1	x2	x3	x4	y
5.1	3.5	1.4	0.2	Iris setosa
4.9	3.0	1.4	0.2	Iris setosa
7.0	3.2	4.7	1.4	Iris versicolor
6.4	3.2	4.5	1.5	Iris versicolor
6.3	3.3	6.0	2.5	Iris virginica
5.8	3.3	6.0	2.5	Iris viginica



# ML Model: Perceptron and Neural Networks

x1	x2	x3	x4	y
5.1	3.5	1.4	0.2	Iris setosa
4.9	3.0	1.4	0.2	Iris setosa
7.0	3.2	4.7	1.4	Iris versicolor
6.4	3.2	4.5	1.5	Iris versicolor
6.3	3.3	6.0	2.5	Iris virginica
5.8	3.3	6.0	2.5	Iris viginica