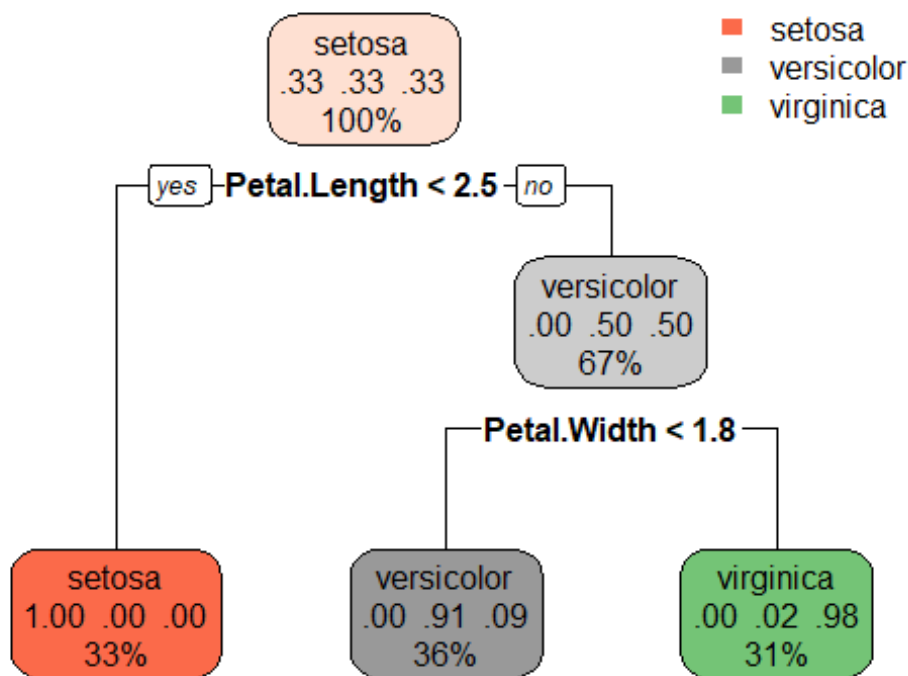# Class_slide20

STSM2634

2025-05-19

Decision Trees:

```r
library(rpart)
library(rpart.plot)

## Warning: package 'rpart.plot' was built under R version 4.3.3

# Example using iris dataset
data(iris)
model_dt <- rpart(Species ~ ., data = iris, method = "class")
rpart.plot(model_dt)
```



```r
# Predict
pred_dt <- predict(model_dt, iris, type = "class")
head(pred_dt)

##      1      2      3      4      5      6
## setosa setosa setosa setosa setosa setosa
## Levels: setosa versicolor virginica
```

Random Forest

```r
library(randomForest)

## Warning: package 'randomForest' was built under R version 4.3.3

## randomForest 4.7-1.2

## Type rfNews() to see new features/changes/bug fixes.

# Use iris dataset
data(iris)
model_rf <- randomForest(Species ~ ., data = iris, ntree = 100)

# Predict
pred_rf <- predict(model_rf, iris)
head(pred_rf)

##      1      2      3      4      5      6
## setosa setosa setosa setosa setosa setosa
## Levels: setosa versicolor virginica
```