# THE SPARK FOUNDATION TASK 6

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## TASK : Prediction Using Decison Tree Algorithim

## Loading the Dataset

```
dt <- iris
head(dt)
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
## 2          4.9         3.0          1.4         0.2  setosa
## 3          4.7         3.2          1.3         0.2  setosa
## 4          4.6         3.1          1.5         0.2  setosa
## 5          5.0         3.6          1.4         0.2  setosa
## 6          5.4         3.9          1.7         0.4  setosa
```

```
dim(dt)
```

```
## [1] 150   5
```

## Basic Data insight

```
sum(is.na(dt))
```

```
## [1] 0
```

There is no null value in the data set #Creating sample train and test Data set

```
s <- sample(200,150)
train <- dt[s,]
test <- dt[-s,]
dim(train)
```

```
## [1] 150   5
```

```
dim(test)
```

```
## [1] 37  5
```

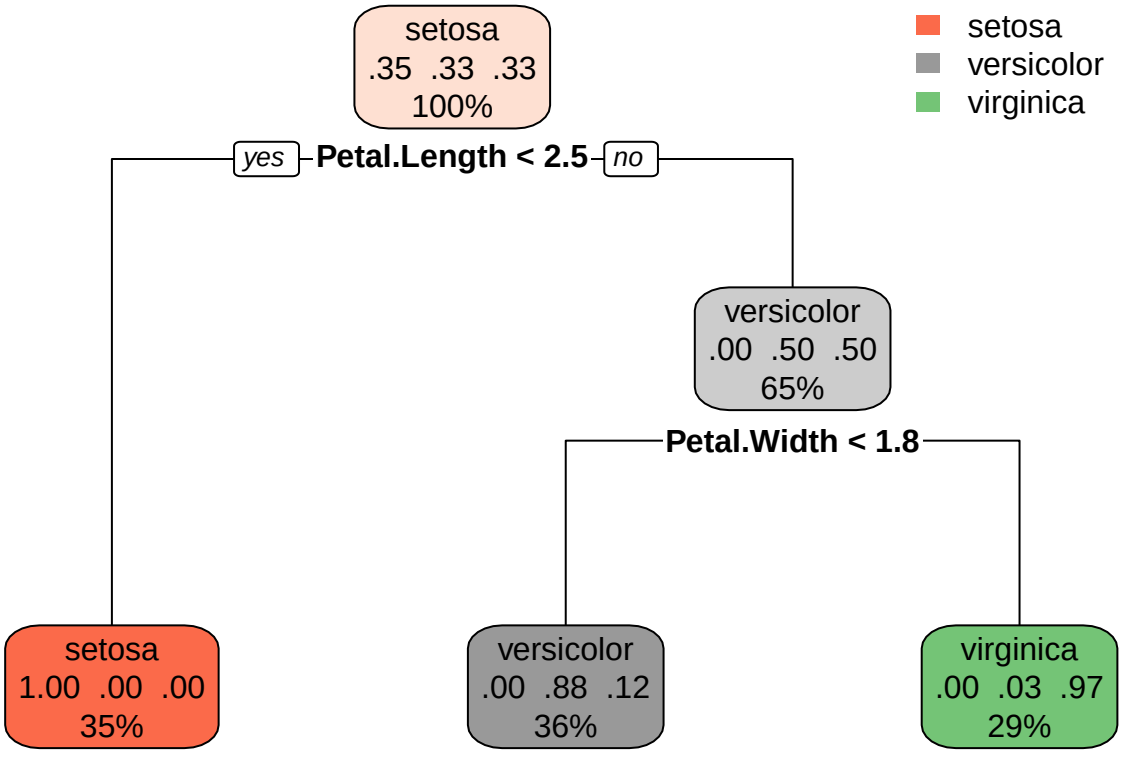
### Loading the library for decison tree data

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

## We will be predicting the classification of Species here utlising all the variable by the model

```
model <- rpart(Species~., train, method = "class")

rpart.plot(model)
```




We can now feed any new/test data to this classifer and it would be able to predict the right class accordingly.