 # Implementation of Naive Bayes Algorithm using "iris" dataset

 # Loading data (you can skip this)

```
data(iris)
iris
```

 # Structure

```
str(iris)
```

 # Installing Packages

```
install.packages("e1071")
install.packages("caTools")
```

 # Loading package

```
library(e1071)
library(caTools)  #for sample.split function
```

 # Splitting data into train and test data

```
split <- sample.split(iris, SplitRatio = 0.8)
train_data <- subset(iris, split == "TRUE")
test_data <- subset(iris, split == "FALSE")
```

#Another way to split the data into train and test data

```
#train_cl=iris[1:100,]
#test_cl=iris[101:150,]

nrow(iris)
nrow(train_data)
nrow(test_data)

set.seed(120) # Setting Seed
```

```
#creating the model
classifier_model <- naiveBayes(Species ~ ., data = train_data)
classifier_model

# Predicting on test data
y_pred <- predict(classifier_model, newdata = test_data)
y_pred
# Confusion Matrix
cm <- table(test_data$Species, y_pred)
cm

#Accuracy calculation
accuracy = sum(diag(cm))/length(test_data$Species)
accuracy
**********
```