KNN

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> data=read.csv(file.choose())
> data[is.na(data)] <- 0
> View(data)
> data=data[-1]
> data=data[-10]
> data$diagnosis_result=factor(data$diagnosis_result,c("M","B"))
> fun=function(x){(x-min(x))/(max(x)-min(x))}
> data[-1]=as.data.frame(lapply(data[-1],fun))
> library(caTools)
> library(class)
> split=sample.split(data$diagnosis_result,SplitRatio = 0.70)
> train_split=subset(data,split==TRUE)
> test_split=subset(data,split==FALSE)
> y_pred=knn(train_split[,-1],test_split[,-1],train_split[,1],k=4)
> cm=table(test_split[,1],y_pred)
> cm
    y_pred
      M  B
  M 16  3
  B  6  5
> s=sum(cm[1],cm[4])
> acc=s/sum(cm)
> acc
[1] 0.7
>
```

Naïve Bayes

```
> library(e1071)
> library(caTools)
> data <- read.csv(file.choose())
> data$diagnosis_result <- as.factor(data$diagnosis_result)
> set.seed(123)
> split <- sample.split(data$diagnosis_result, SplitRatio = 0.7)
> train_data <- subset(data, split == TRUE)
> test_data <- subset(data, split == FALSE)
> nb_model <- naiveBayes(diagnosis_result ~ ., data = train_data)
> predictions <- predict(nb_model, test_data)
> conf_matrix <- table(test_data$diagnosis_result, predictions)
> print(conf_matrix)
   predictions
     B  M
  B  9  2
  M  4 15
> acc=sum(diag(conf_matrix))/sum(conf_matrix)
> acc
[1] 0.8
>
```