Lab2_special task

Andreas

10 Dec 2018

Contents

Special Task 1

1

```
## The equation of linear dicriminat function for Male is:
##  -5.935135 1.282926 -0.1069072
```

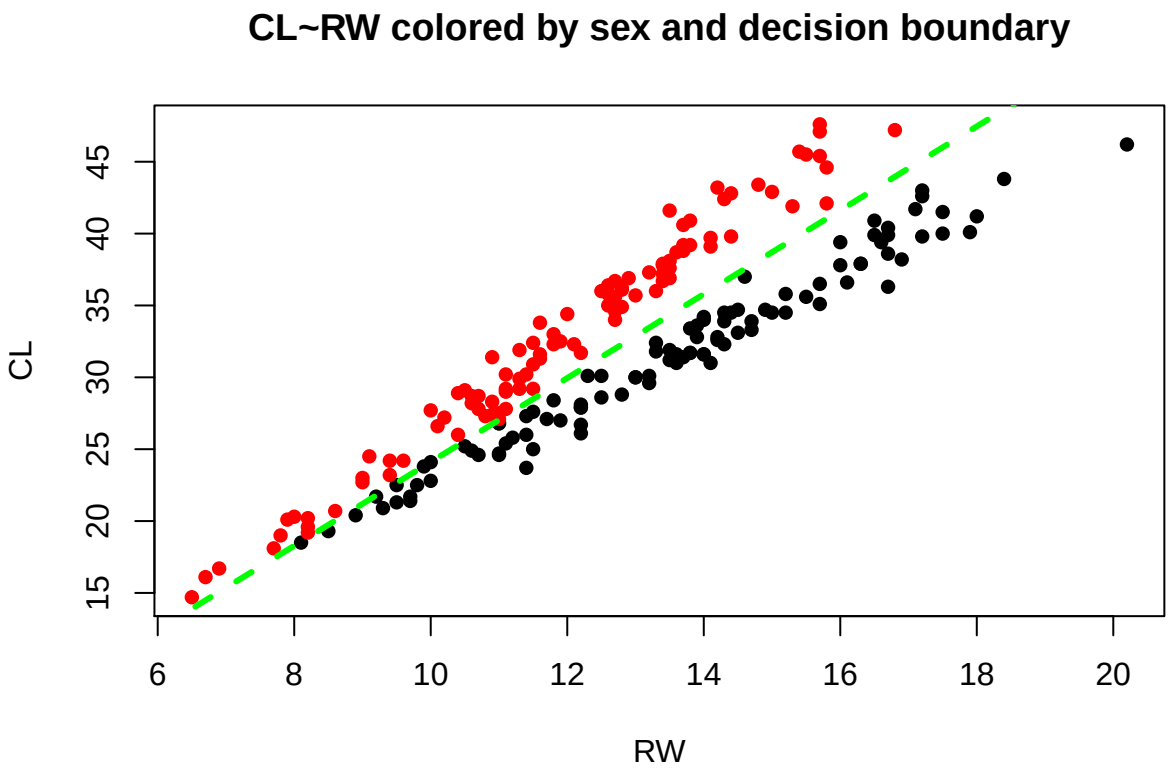
```
## The equation of linear dicriminat function for Female is:
##  -10.86781 4.124349 -1.080659
```

```
## The equation for decision boundary is :
##  slope= 2.918015 -5.065639
```

As we can see the equation of linear discriminat function for class Male is : $-5.935135 + 1.282926 * RW - 0.1069072 * CL$ and for the Female class is : $-10.86781 + 4.124349 * RW - 1.080659 * CL$. Finally,the equation for decision boundary is $-4.932676 + 2.841423 * RW - 1.080659 * CL$ and the line for decision line is : $y = 2.928015 - 5.065639 * x$

2

```
## [1] "The accuracy of the model is :0.965"
```



In the above plot we can see the decision boundary for our model with the green dashed line.Also calculating the accuracy of the model we can see that it is 96.5% which is very high and our model does a very good job and our predictions are very accurate.The model depends on the prior probabilities and in our case we have equaly sized classes and the linear line is able to seperate the classes very accurate.

Special Task2