

Exercise Set 2

This report contains my answers for exercise set 2.

Problem 8

Task a

Coefficients for penguins train data fit.

(Intercept)	bill_length_mm	bill_depth_mm	flipper_length_mm
-380.81882000	14.30428414	-11.68758439	0.48138045
body_mass_g			
-0.03094901			

Accuracy on training and test sets without regularisation:

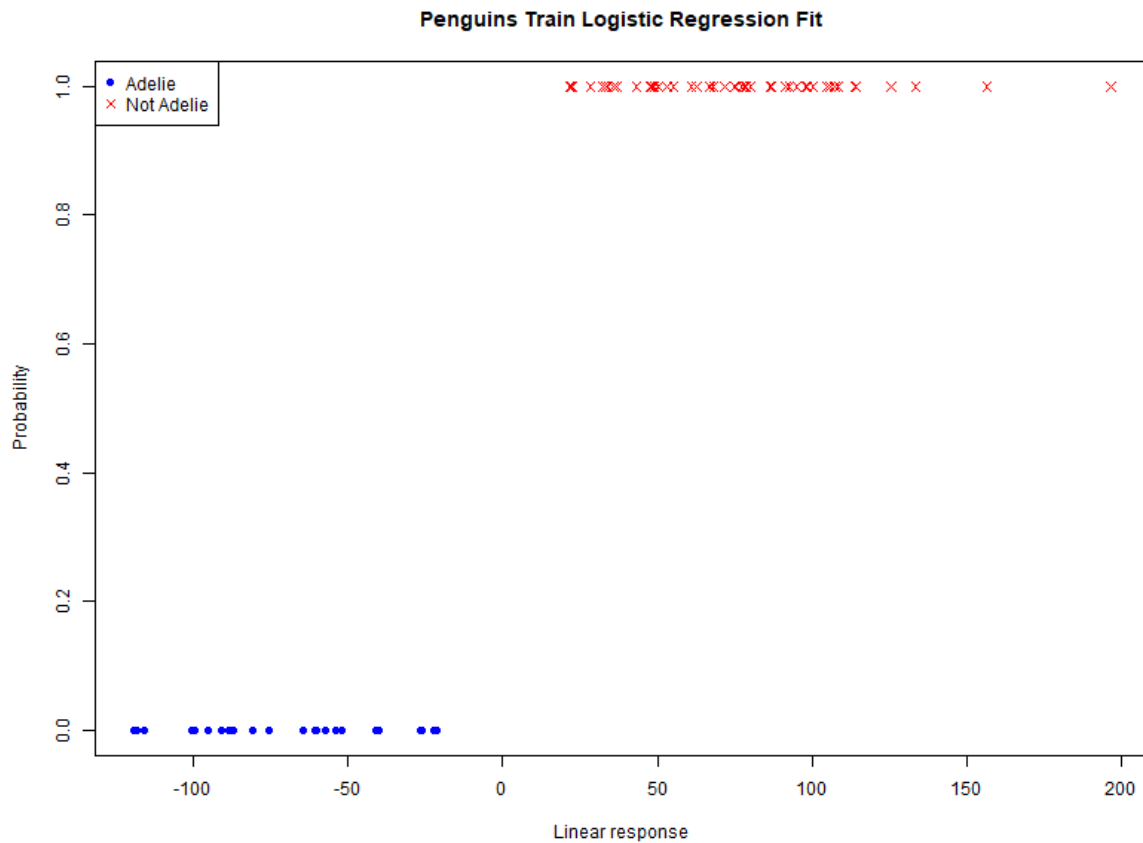
```
[1] "Train accuracy:"
```

```
[1] 1
```

```
[1] "Test accuracy:"
```

```
[1] 0.9466667
```

Plot of penguins train data predictions.



Task b

Coefficients for penguins train data fit.

Loading required package: Matrix

```
5 x 1 sparse Matrix of class "dgCMatrix"
      s0
(Intercept)    -16.082633193
bill_length_mm    0.662337141
bill_depth_mm    -0.733855638
flipper_length_mm  0.004030675
body_mass_g       .
```

Accuracy on training and test sets using lasso with regularisation:

```
[1] "Train accuracy:"
```

```
[1] 1
```

```
[1] "Test accuracy:"
```

```
[1] 0.9866667
```