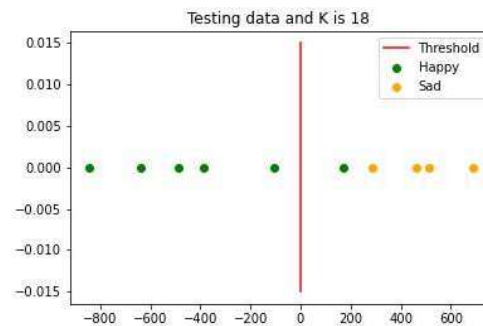
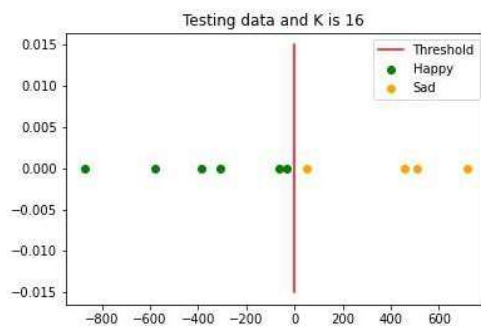
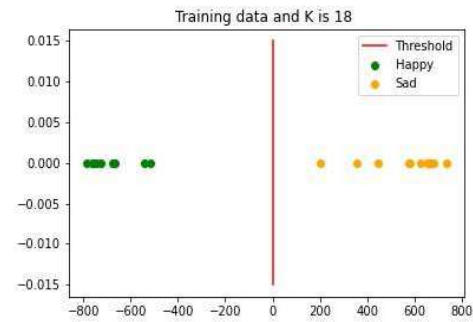
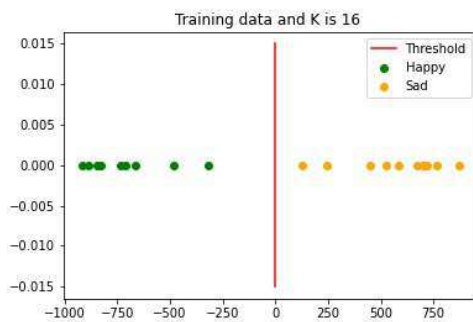


Q4 Fischer faces

K	Accuracy on training data	Accuracy on testing data	Fisher Ratio
10	90	100	3.26
11	90	100	3.27
12	90	100	5.84
13	100	90	15.85
14	100	80	15.99
15	100	80	15.99
16	100	100	20.14
17	100	100	28.06
18	100	90	48.29

- Threshold is selected by the average of the mean of each class. It is nearly zero.
- The class separability is measured in terms of the Fisher ratio. The maximum class separability is achieved at $k = 18$, as we only lose less variance.



- From the result we can see that at $k = 16$, we get fisher ratio as 20.14 and good accuracy in the testing data.