

# Machine Learning

## Assignment-1

數據所碩一楊子萱 RE6114056

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- In the Question3, find the solution by solving this equation using least-squared manner.

I find the solution in crx is , [1.89685904, -2.35680454, -2.35680454, 0.18129545, 0.18129545, -2.07349222, 0.28884653, -2.08794763, 22.05132589, 0.67553946, -3.08992252, -2.69761761, 0.6611176 , -0.89111077, -2.69246384] , bias is 0.1.

And the solution in data is [-256.8226214 , 10.83005037, 83.05324534, 63.05431828, 4.33025673, -4.97923607, 7.78627151, 7.41618511, -7.95806686, -71.06668621, 8.88503671, 1.11750786, -2.1958714 , -5.22324345, 5.44193162, -5.29691567, -8.35956944, 8.89972891, 0.34643525, 3.62497851, 196.14325784, 0.38122436, -19.90051724, -62.93637819, -2.99729232, 1.34059348, 6.44371775, 2.67498991, 13.00055049, 20.79160567] , bias is -0.79.

- Compare classifier by accuracy with the table below.

	Accuracy	
	crx	data
linear classifier	0.8553	0.9853
linear classifier with bias	0.6645	0.9853
voted perception	0.8487	0.9853

Tabel1 : linear classifier & voted perception

- Compare SVM by accuracy with the table below.

	Accuracy	
	crx	data
Basic SVM	0.6447	0.9265
Soft margin SVM	0.6908	0.8824
Sklearn SVM	0.8355	0.9853

Tabel2 : SVM