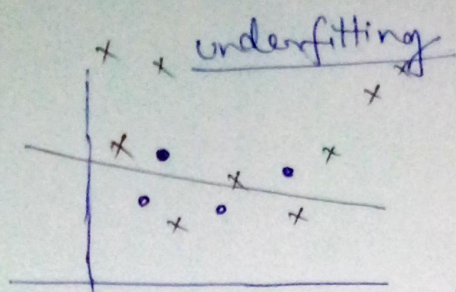
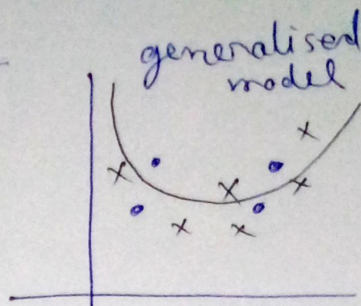


# BIAS VARIANCE TRADE-OFF



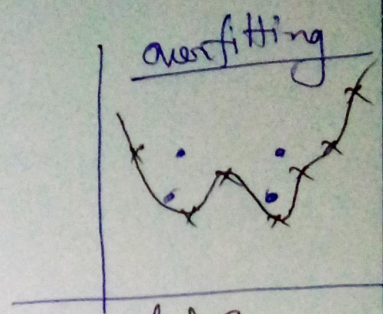
model-1

High bias.  
Low variance  
(LV)<sub>1</sub>



model-2

Low bias  
Low variance  
(LV)<sub>2</sub>



model-3

x-training set  
• Test set

Low Bias.  
High variance

Bias - The inability of ml model to truly capture the relationship in training data

variance - difference of fits on different dataset

- Here  $(LV)_1 > (LV)_2$

- for getting the generalised model we use methods like Regularization, Bagging, Boosting