

Logistic regression

⇒ used For classification problem

2 Choices

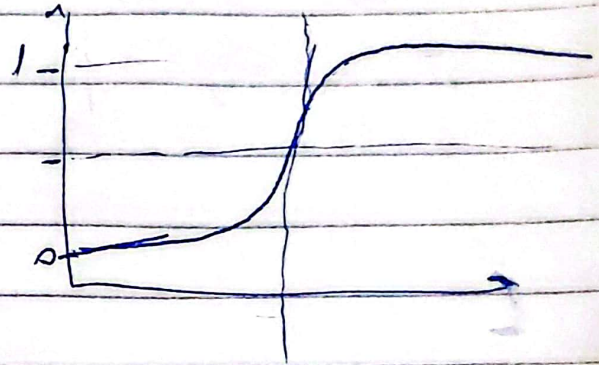
⇒ Binary

multi Choices

⇒ Multiclass classification

⇒ Sigmoid Function

$$F(z) = \frac{1}{1 + e^{-z}}$$



⇒ Confusion Matrix

Data $\xrightarrow{\text{Train}}$ $\xrightarrow{\text{Test}}$ Split

	Actual	
Predicted	T.P	F.P
	F.N	T.N

Date: _____

No: _____

$$\text{Accuracy} = \frac{TN + TP}{TN + FP + FN + TP}$$

$$\text{Precision} = \frac{TP}{\text{All True (TP + FP)}}$$

$$\text{Recall} = \frac{TP}{TP + FN}$$

$$F_1 = 2 \times \frac{\text{Precision} \times \text{Recall}}{\text{Precision} + \text{Recall}}$$

Roc / AUC