



Logistic Regression

used for classification for predicting binary outcome

- why logistic regression is used?

- (1) Simplicity and Interpretability
- (2) Efficiency in learning & Prediction
- (3) Provides Probability Scores for Prediction
- (4) Works well for linearly separable classes
- (5) Handle high-dimensional data effectively

- Applications of Logistic Regression

Healthcare, finance, Marketing, manufacturing, Text classification

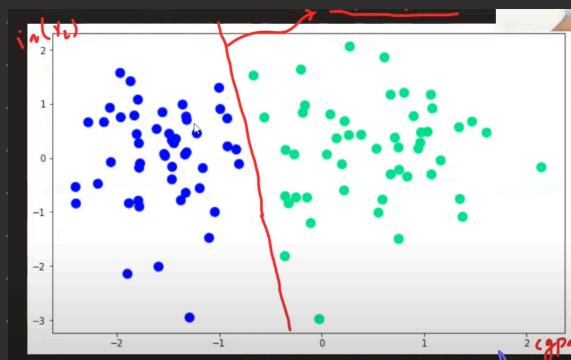
- Limitations:-

May not perform well on highly non-linear relationships

- ① Probabilistic output

Should be linearly classifiable

- Proportion trick: $Ax_1 + Bx_2 + C = 0$ - for 2 class



this binary separated data

check for each point that is not correct
for current line if not then just change
line in a way that incorrect point is classified
correctly

