

- Describe the formula for logistic regression and how the algorithm is used for binary classification.

- Formula for Logistic Regression

$$\delta(t) = \frac{1}{1 + e^{-t}}$$

$$t = \beta_0 + \beta_1 x$$

$$f(x) = \delta(t) = \frac{1}{1 + e^{\beta_0 + \beta_1 x}}$$

- We can then use the result of  $f(x)$  as the probability of the data point being in the positive class.

