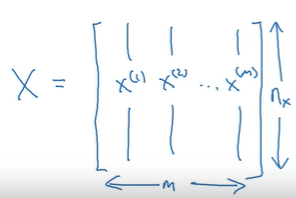
**Week 2 – Notes**

**Binary Classification**

The notation used throughout the course:

 - features: one example per column (m columns) nx features (rows)

A picture containing text

Description automatically generated - targets: one target per column

**Logistic Regression**

**Text

Description automatically generated with medium confidenceWhiteboard

Description automatically generated with medium confidenceIcon

Description automatically generated**

**Logistic Regression Cost Function**

We denote

Text

Description automatically generated with low confidence

We cannot define the loss function as below because it isn’t convex

A picture containing icon

Description automatically generated

We define it as

Text

Description automatically generated

The cost function is the average of all loss functions for each pair of y and y hat

Text, whiteboard

Description automatically generated