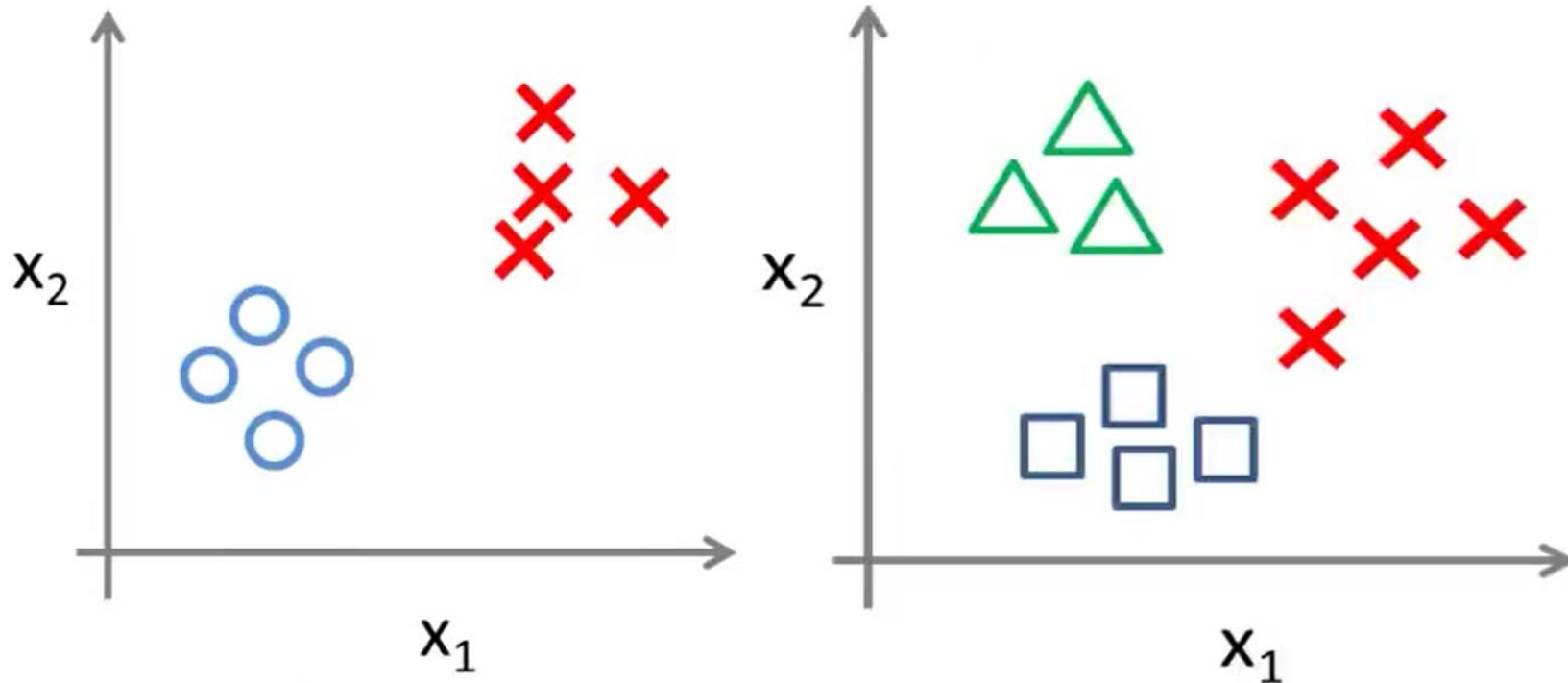


# Multi-class Classification

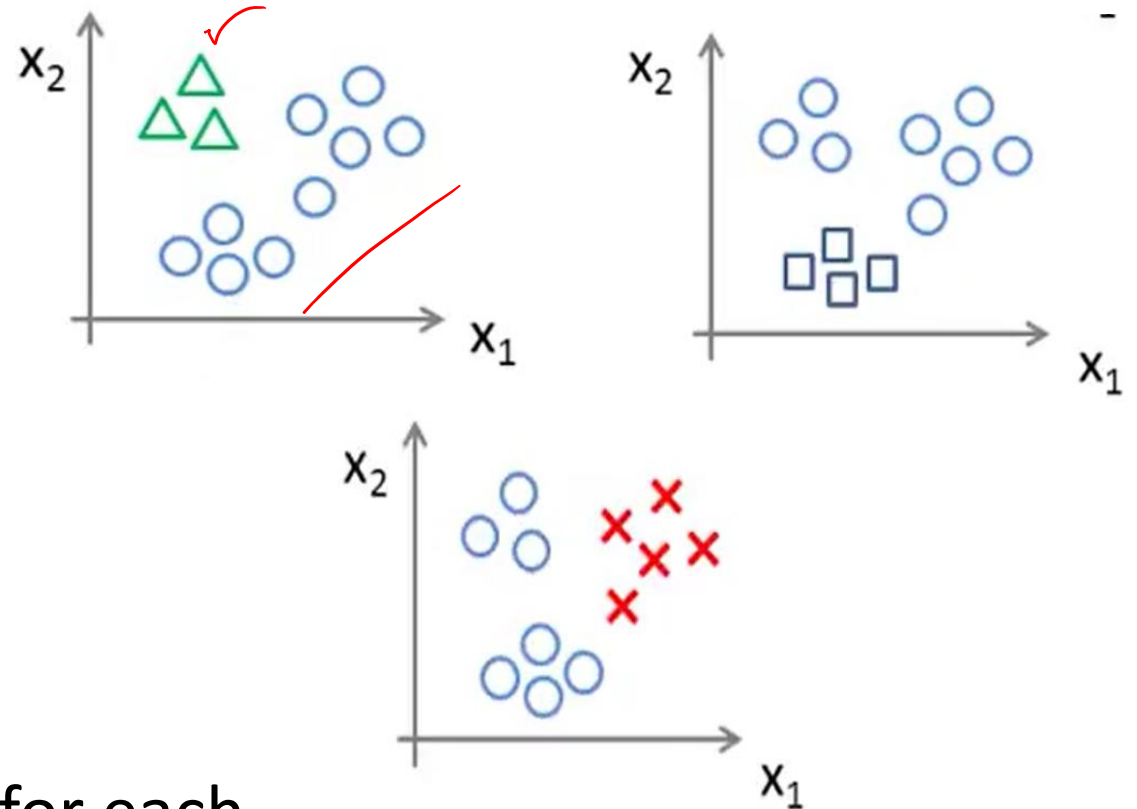
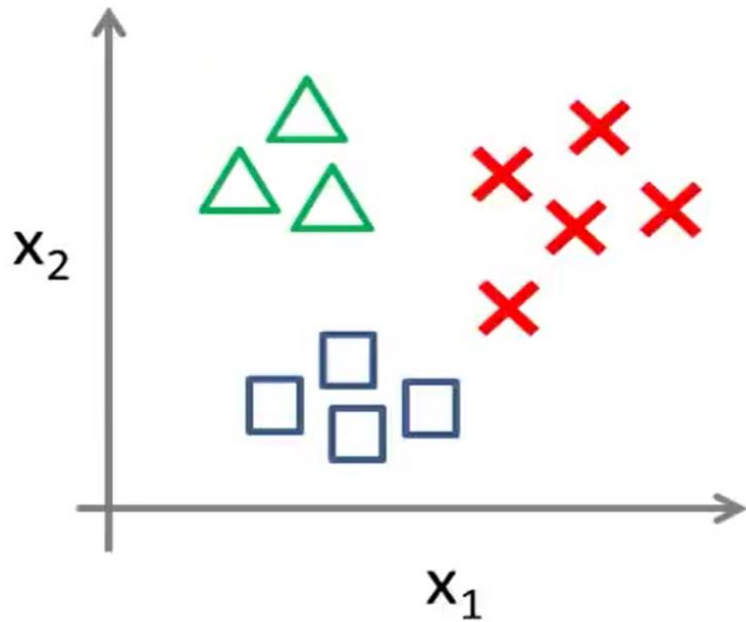
Dr. Muhammad Wasim

# Multi-class Classification

- Iris Dataset has three categories: Setosa, Versicolor, Virginica
- Similarly, we have many other multi-class problems.



# One-vs-all (one-vs-rest)



- Train a logistic regression classifier for each class to predict the probability that  $y=l$
- On a new test example ( $x$ ), pick the class with the maximum probability