301033 Introduction to Data Science

Classification Lab Exercise:

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1. **Start R studio**
   - Create a New Project (Use the same folder created in Lab1)
   - Install Package "ISLR" (If not installed earlier)
   - Upload following data set "Smarket" and View the data sets using the Console

2. **Logistic Regression: Use "Smarket" data set**

   - Construct the Multiple Linear Logistic Model for Direction in terms of the Predictors Lag1, Lag2, Lag3, Lag4, Lag5 and Volume.
   - Show how you would calculate the probability (the Direction = "up") for a given set of X (predictor) values.
   - Construct the Misclassification Martrix
   - Calculate the Probability (Misclassification) or Misclassification Rate
   - Calculate the False Positive rate
   - Calculate the False Negative Rate