

# Overview of Logistic Regression

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Logistic Regression

Based on Chew C. H. (2020) textbook: AI, Analytics and Data Science. Vol 1., Chap 7.



# Objective

1. Apply an Analytics Model that can predict a **Categorical** Outcome Variable Y.
2. How to Identify & Quantify High Risk Factors.



# Content

- Logistic Regression Model for  $Y$  with 2 outcomes (Binomial)
- Odds
- Odds Ratios and Odds Ratio Confidence Interval
- Logistic Regression Model for  $Y$  with 3 or more outcomes (Multinomial)



## Next: The problem with Categorical Y

- Understand the problem.
- Understand why Logistic Regression is a Solution to that problem.

