Glossary terms from module 1

Absolute values: (Refer to **observed values**)

Causation: A cause-and-effect relationship where one variable directly causes the other to change in a particular way

Dependent variable (Y): The variable a given model estimates

Explanatory variable: (Refer to **independent variable**)

Independent variable (X): A variable whose trends are associated with the dependent variable

Intercept (constant B_0): The y value of the point on the regression line where it intersects with the y-axis

Line: A collection of an infinite number of points extending in two opposite directions

Linear regression: A technique that estimates the linear relationship between a continuous dependent variable and one or more independent variables

Link function: A nonlinear function that connects or links

the dependent variable to the independent variables mathematically

Logistic regression: A technique that models a categorical dependent variable based on one or more independent variables

Loss function: A function that measures the distance between the observed values and the model's estimated values

Model assumptions: Statements about the data that must be true to justify the use of a particular modeling technique

Negative correlation: An inverse relationship between two variables, where when one variable increases, the other variable tends to decrease, and vice versa

Observed values: The existing sample of data, where each data point in the sample is represented by an observed value of the dependent variable and an observed value of the independent variable

Outcome variable: (Refer to **dependent variable**)

Positive correlation: A relationship between two variables that tend to increase or decrease together

Predictor variable: (Refer to **independent variable**)

Regression analysis: A group of statistical techniques that use existing data to estimate the relationships between a single dependent variable and one or more independent variables

Regression coefficient: The estimated betas in a regression model

Regression models: (Refer to **regression analysis**)

Response variable: (Refer to **dependent variable**)

Slope: The amount that y increases or decreases per one-unit increase of x