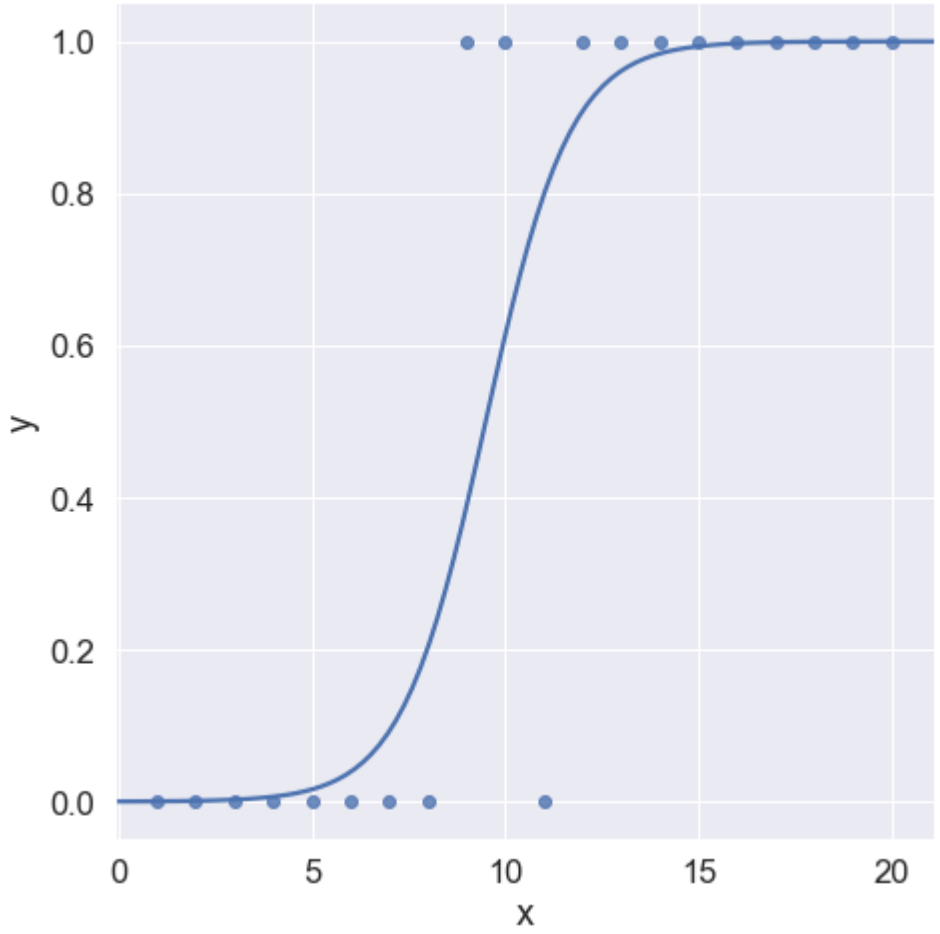
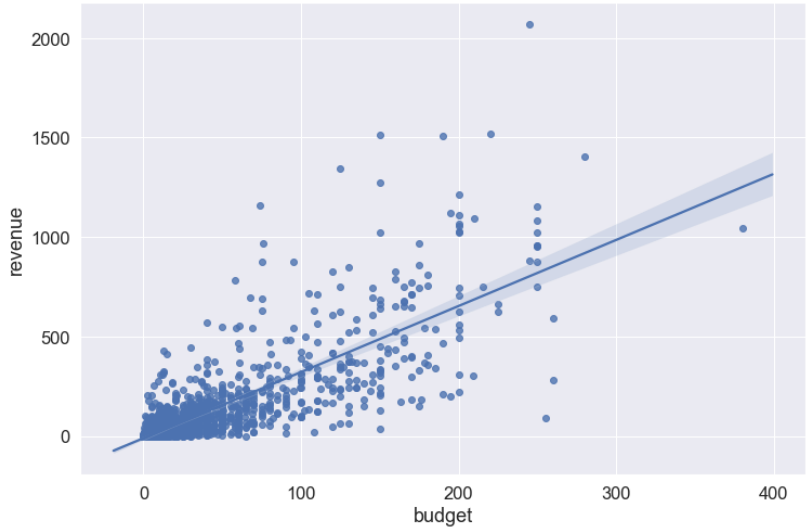
Logistic Regression (inferential Statistics)

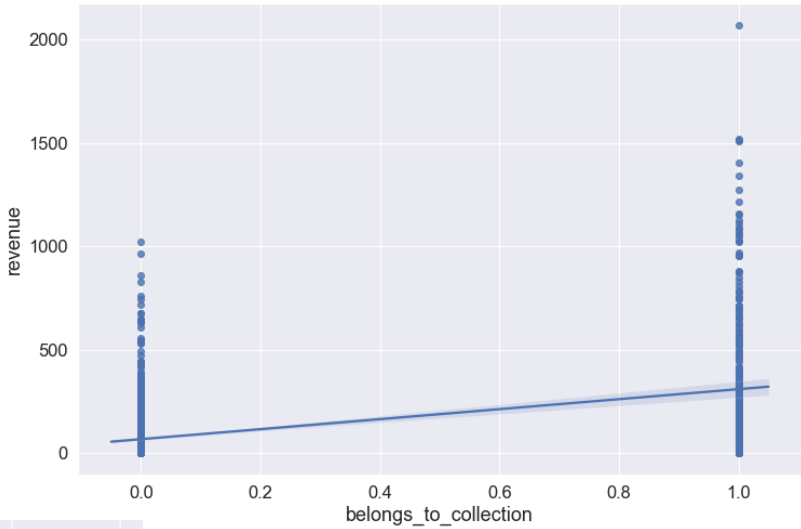


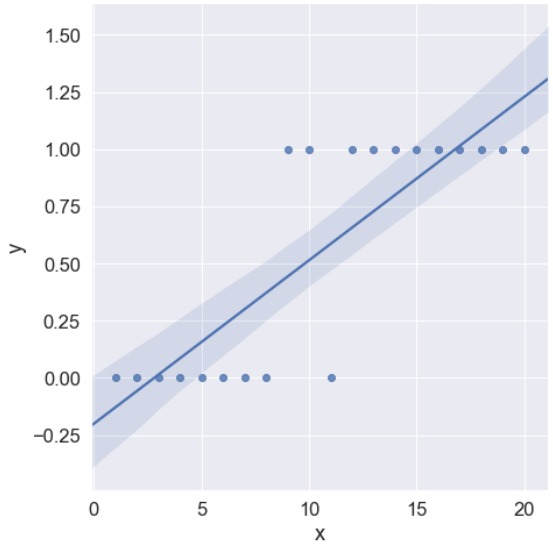
Limits of Linear Regression

Dependant & independent Variables are Continuous



Dependant Var: Continuous | independent Var.: Categorical / Binary

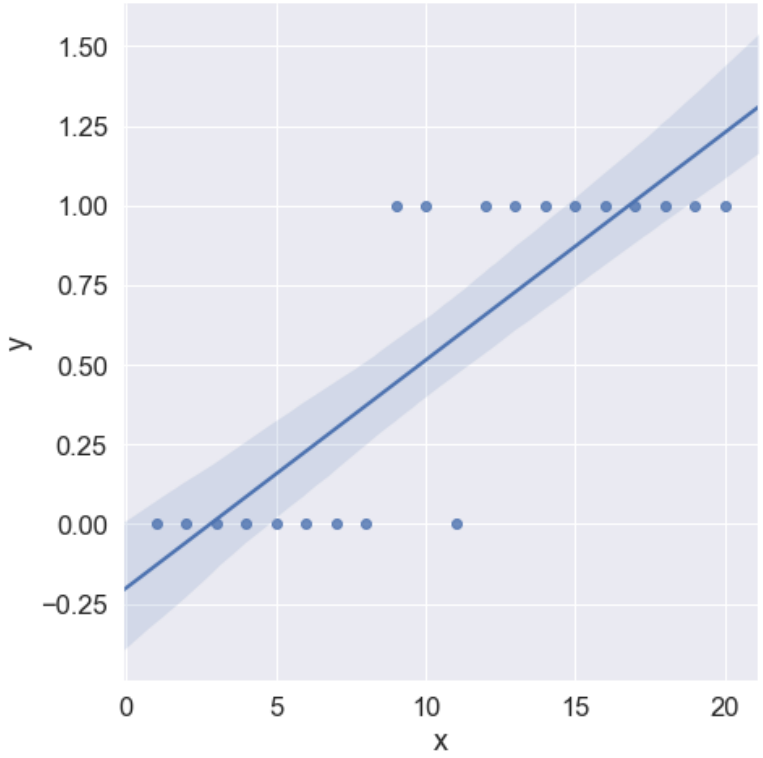




Dependant Var: Categorical / Binary

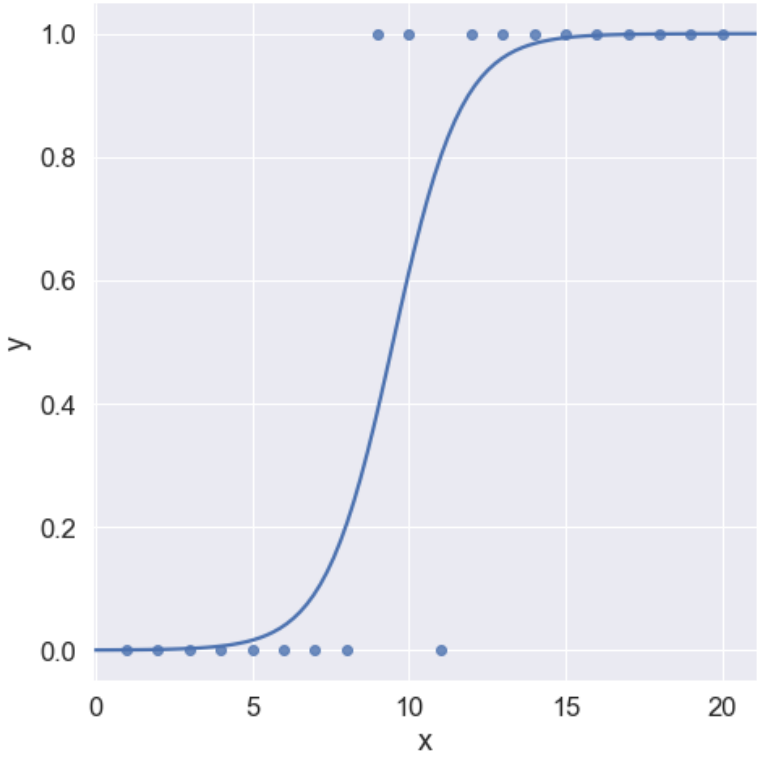
Logistic Regression

Linear Regression



$$y = a + bx$$

Logistic Regression



$$y = \frac{1}{1 + e^{-(a+bx)}}$$

Inferential Statistics vs. Classification

What we´ll do in this Section:

- Inferential Statistics with Logistic Regression Model
- Which Factors (independent variables) significantly influenced the chances to survive the Titanic Disaster (binary dependent variable)? → Hypothesis Testing

What we´ll not do in this Section:

- Classification (Machine Learning)
- Forecasting the chances to survive the Titanic Disaster for passengers where the survival status is unknown (based on the other characteristics/features).