

# Multivariate Analysis

# Multivariate Analysis

If there is a difference between churning customer's mean age and non churning customers' mean age ?

# Multivariate Analysis

If there is a difference between churning customer's mean age and non churning customers' mean age ?



Vs



# Multivariate Analysis

If there is a difference between churning customer's mean age and non churning customers' mean age ?



Z test

Or

t test

Vs



# Multivariate Analysis

Are females less likely to churn than Males ?

# Multivariate Analysis

Are females less likely to churn than Males ?



Vs



# Multivariate Analysis

Are females less likely to churn than Males ?



Vs



Chi Square Test



# Multivariate Analysis

If there is a difference between mean of current month balance for customers of different occupation ?



Z test

Or

${}^5C_2$  times

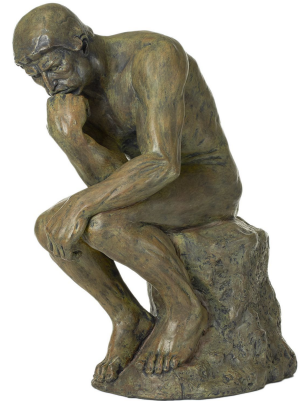
t Test





# Multivariate Analysis

Weather occupation influence the current month balance for a customer?



# Multivariate Analysis

Weather occupation influence the current month balance for a customer?



ANOVA

One Way



# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance for a customer?

# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance for a customer?



# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance for a customer?



ANOVA

Two Way



# Multivariate Analysis

Weather occupation influence the current month balance and previous month balance for a customer?

# Multivariate Analysis

Weather occupation influence the current month balance and previous month balance for a customer?



# Multivariate Analysis

Weather occupation influence the current month balance and previous month balance for a customer?



MANOVA

One Way





# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance and previous month balance for a customer?

# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance and previous month balance for a customer?



# Multivariate Analysis

Weather occupation and number of dependents influence the current month balance and previous month balance for a customer?



MANOVA

Two Way

# Multivariate Analysis

- $\geq 3$  groups

# Multivariate Analysis

- $\geq 3$  groups
- Generalized t Test

# Multivariate Analysis

- $\geq 3$  groups
- Generalized t Test
- Dependent Variable : Continuous

# Multivariate Analysis

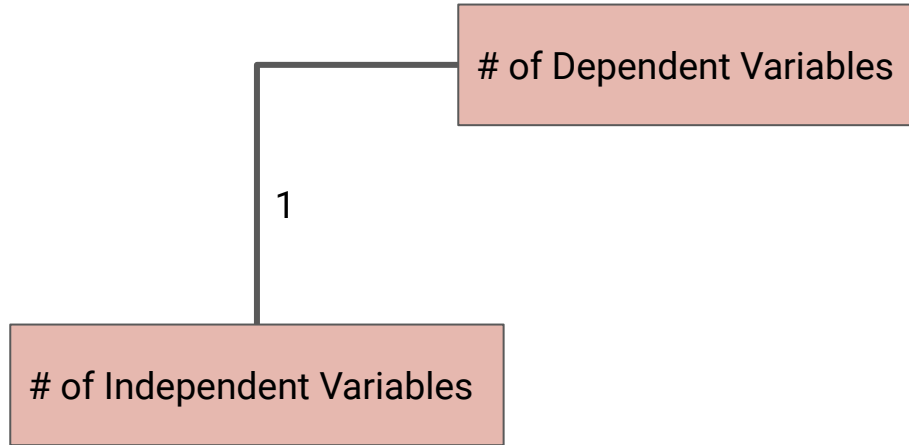
- $\geq 3$  groups
- Generalized t Test
- Dependent Variable : Continuous
- Independent Variables : Categorical

# Multivariate Analysis

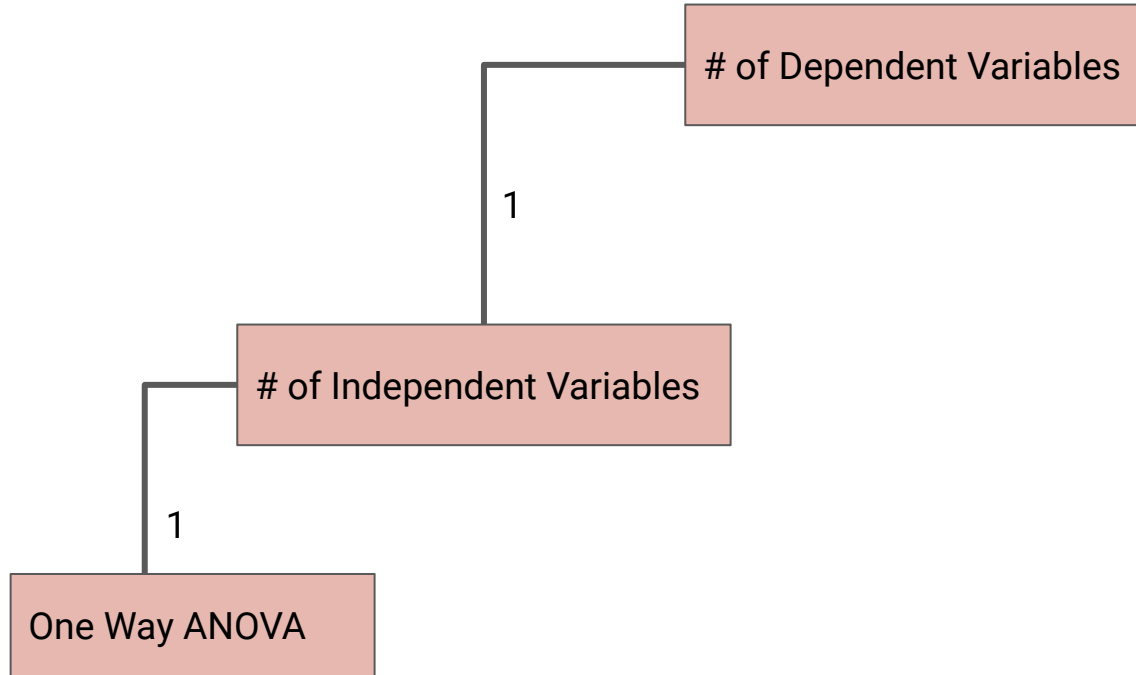
# of Dependent Variables



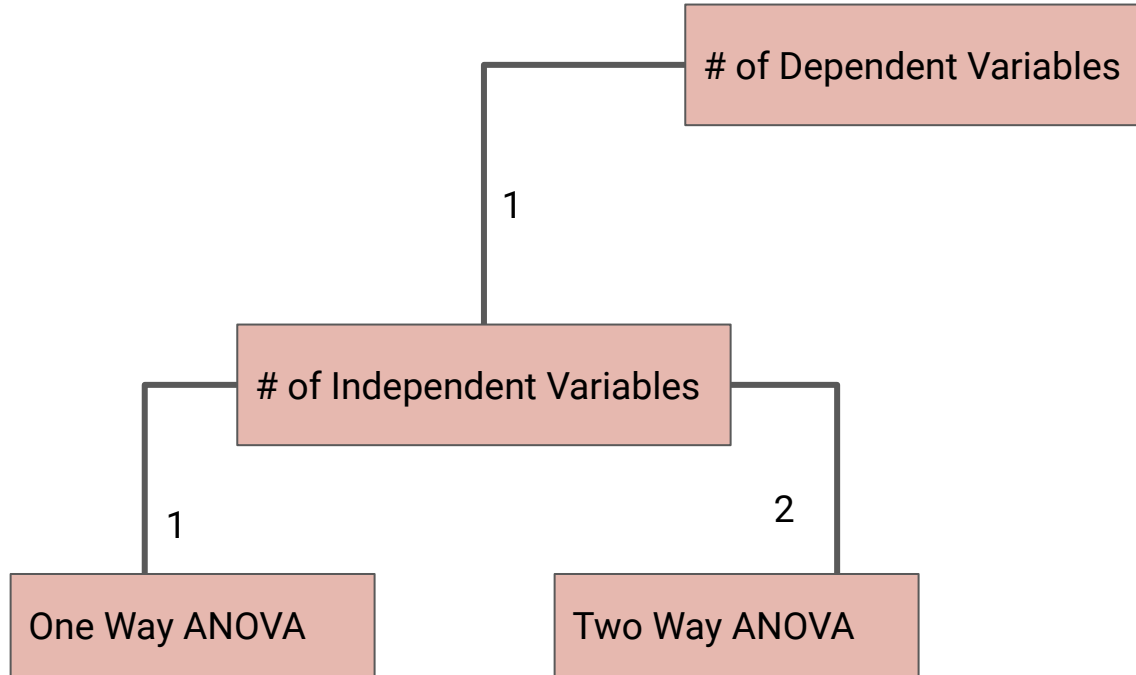
# Multivariate Analysis



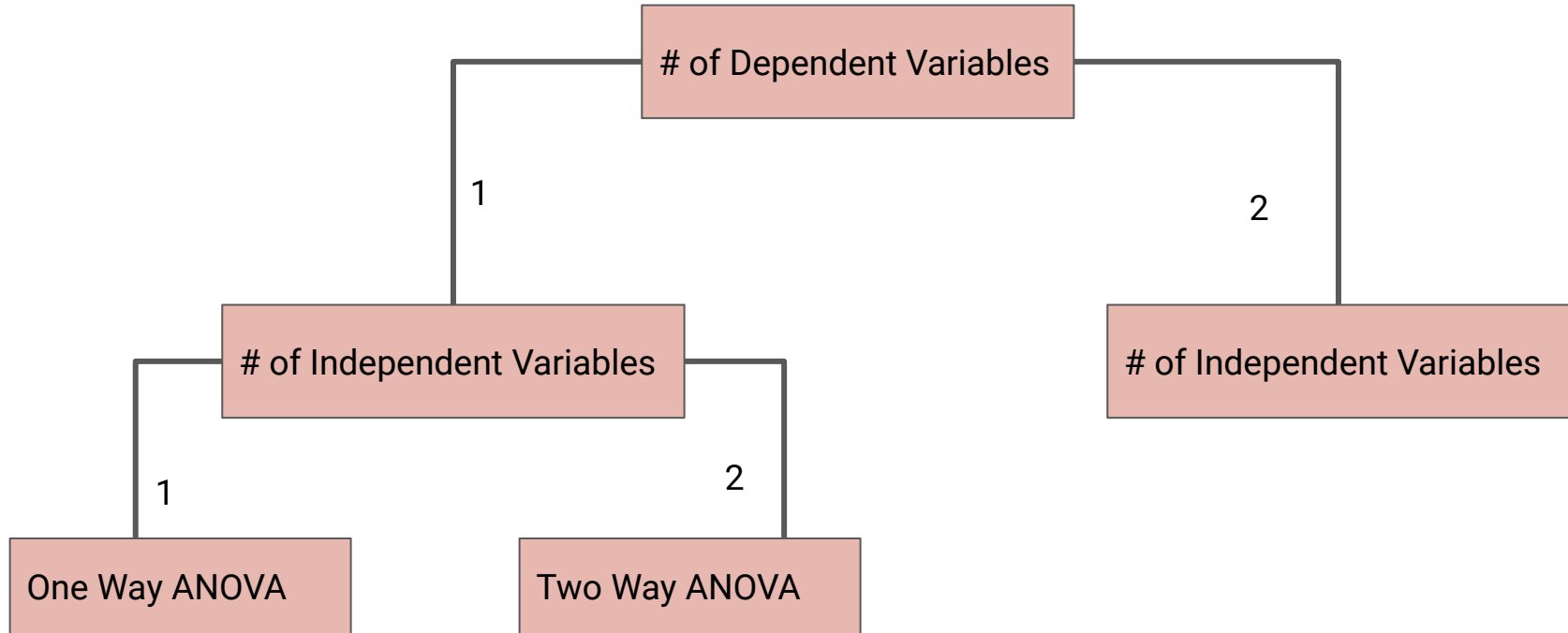
# Multivariate Analysis



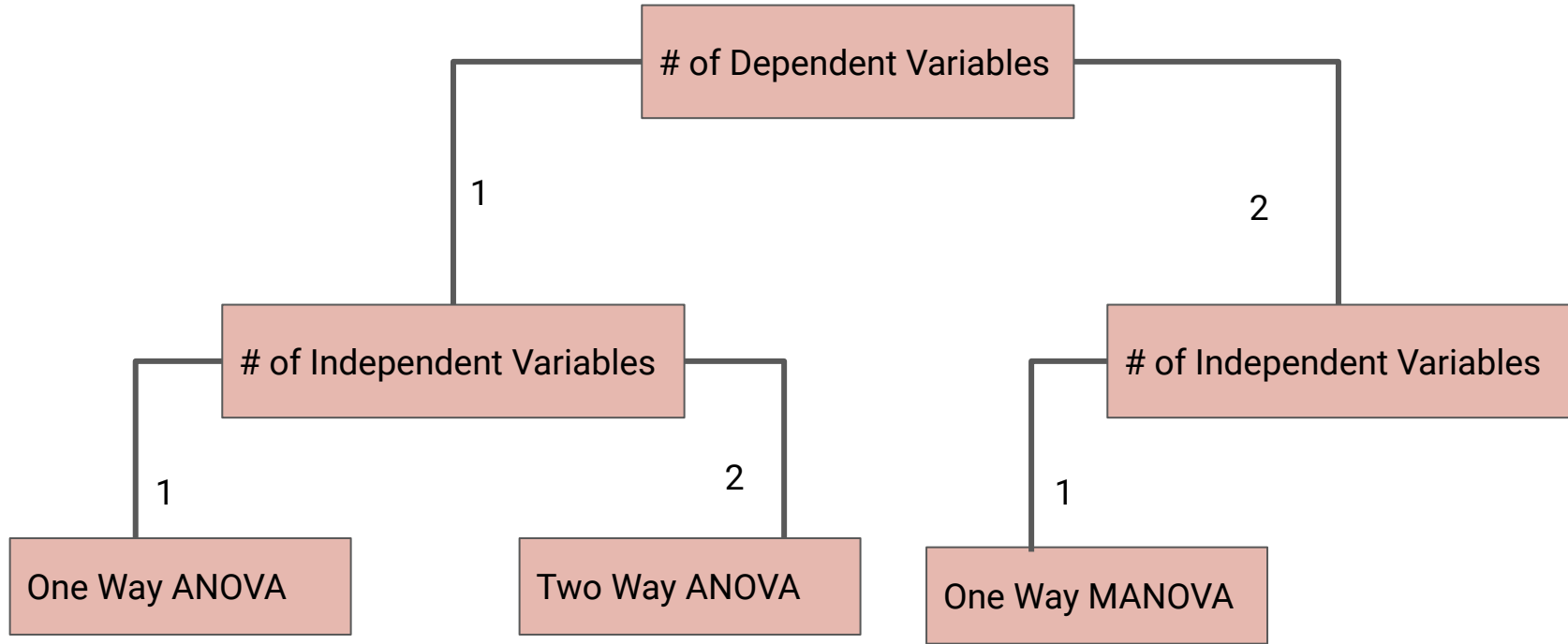
# Multivariate Analysis



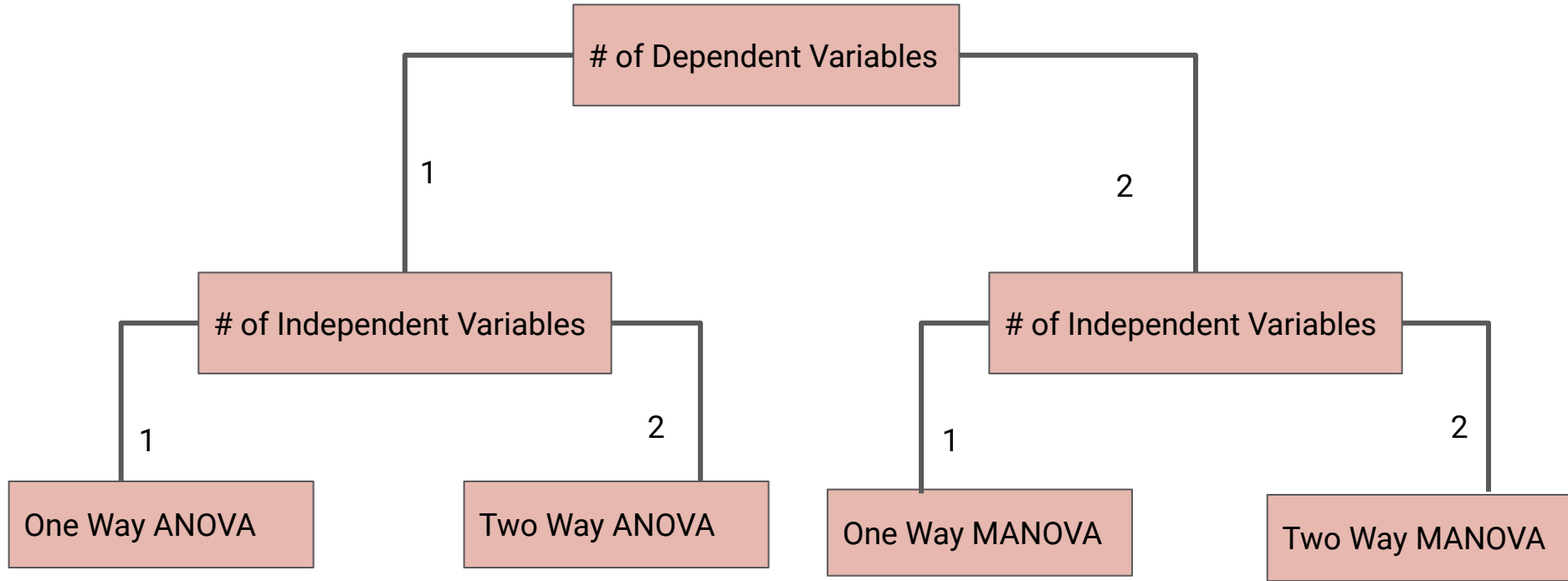
# Multivariate Analysis



# Multivariate Analysis



# Multivariate Analysis



Thanks