Hypothesis Test

~ Null hypothesis (Ho) :~ there is no difference
~ Alternate/Reasearch Hypothis (H1) :~ There is some differen

Type of test :

~ P value	~ Population <30		one sample with
~ T-test		~S.D is not known	~two category
			one sample with two
~ Z-test	Population ≥30	~SD is known	category & large popula
~ Anova test	Entention of T&Z tof		one sample with
~ chi square !			more than two catg
			for two sample to
			for categorical va

parametric (Population Parameter) → (Mean, Variance, mode, S.D)

T-test   Z-test   F-test   Anova test

Non-parametric (Sample Parameter) → (Mean, mode, Variance, S.D)

chi square test

$$Z\text{-test} = \frac{\bar{x} - \mu_0}{6\sqrt{n}}$$

→ $\bar{x}$:- sample Mean
→ μ_0 :- Population Mean
→ 6 :- Standered devation (SD
→ n :~ No of observation

$$T\text{-test} = \frac{\text{difference b/w mean}}{\text{Variance/sample size}} = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

$$Anova\text{-test} = \frac{MST}{MSE}$$

$$Chi\text{-square} (x^2) = \frac{6^2}{6^2 p}(n-1)$$

	Category	Continous
category	chi-square	T-test, Anova
Continous	logistic Regration	Correlation -1<@or<1

~ P value is Significance or Probility of Null Hyp

Table Value / P value / significance

※ Pvalue < computed value ;   Reject the Null Hypothsis

for 5% → 1.96
for 1% → 2.58

Pvalue > computed value
↓
Accept the Null Hypothis