	STATE OF THE REPORT OF THE PERSON OF THE PER
	Hypothesis: A supposition or proposed explonation mode on the basis of limited evidence as a starting point for further 28, 10, 2019 investigation-
	10. Hypothesis Testing - Monoj M
*	k Inferential Statistics
*	Null Hypothesis Albernate Hypothesis
7	Alpha Value Critical value
2	p value de la
	Null Hypothesis: Status quo or No difference.
I e-	g I am assuming a machine gives 5 Gold coins a day. And someone tells me that is does not give 5 Gold coins.
Нуро	theris Two Tailed Test One Tailed Test One Tailed Test
Null	- 1 means = 5 (test
Aleber	nate mean is not equal tos mean (5 mean 75
	the the sider Percebus and Italian
The Real Property lies	

* One Tailed Test 11523 Right Tailed Rejection Area allomate Hypothern Left Tailed Rejection Mail Hypothern Status qua In one Tailed Test, Rejection area falls on * Two Tailed Test Regention - In Two Tailed Test, Rejection area talls on both the sides.

* Alpha Value (Margin of error) - level of significance. > Rejection Area 11 - Accept of for Threshold level I limit for rejecting Hall Hypothesis: below and the > If Margin of error is 5% then confidence level 15 95% P 1d MORAL 1897 8600 7 T > In Two Tailed Test, if a I assume margin of error is 5%. then 215th Rejection will be 2.5% on both the sides. -> Cut-offorThreshold will very depending on complexity on study fourtome - 5% is universally accepted

Two data Types in statistics quantitative: Continuous Qualitative (Categorical C.e.g. Gender) Discrete * p value (mas to approved) sular odal A > probabilaty value Parametric Non-Parametric quantitative Qualitative (Categorical) Much of the data Not much about data is known isknown. then confidence level 2 (21 mys to my of) IT & Ti Fandz Test Abnova, chi sq as Tailed Test it a 1 accume margin of medal to the the contract of expection will be 2:5% on belle the a Cart off with trashold will your depending on Something of Usuto (Jes Musignos) Product of and the food of the following the first of the

* T- Test (Parametric Test) -> Framing a "Mull Hypothesis" is important Hypothesis is like assuming a "Mull Hypothesis" and then trying to find the evidence to prove "Alternate Hypothesis" is Correct was son spands with and son some delayer our resolute (Karel (Anays, Maraye) - It-Test is used to determine means between 2 groups are same or hot TI talks about degree of randomness are wed in statistical valuation Hypotherized Mean Difference + 11 p value & alpha vialue & Repol Munitipe Difference of mean between sample and population mill reson silver olab & golong Typhysperk in San Asymptotics -> In Interential Statistics, every machine will Consider dataset as sample.

(Peroce for Test) > Mean : Average -> Variance: How spreathe data is spread from the Hypelkeris is likerageming a million -> Observation: County on donce to prove "Alternate tripotherie" no - Pearson Correlation & How stringly two variables datasets are co-related Correl (Array 1, Array 2) Is assed to delemented mach between 9 : degree of freedom (n-1) >df are used in statistical calculation estatiscally significant) * If p value & alpha value : Reject Null Hypotheris Differer of mean between comple as * If pralue 7 alpha value: Accept Mull Hypothesis (SIGHIHEARKly insignificant) Statistically a relevential statisfies over machine with + If test statis < the critical value : Accept Null * If test stat is > Critical value : Reject Null

>p value : T. TESTC Array 1, Array 2, tails, Eype) stails = 100n 2000 000 typed = paired of and Two sample equal variance 7000 sample unequal variance Variable I Ronge Group with higher marander >t-critical Ha one tail (Cut off value) Calculated from t-Diotribution Table Allerale - Unequal Homanac said but have know appha value f degree of freedom -> t-statistics. The t-statistics is the ratio of the departure of the estimated value of a parameter from its hypothesized value to its standard error. It is used in hypothesis testing via students E- Test.

E-Test in special spores start the purpose of the F-Test is to check if the variance of the 2 separate groups are equal or not. Two rample unequal manage Variable 1 Range: Group with higher variance. Null Equal variance followays same for Alternate = Unequal Variance. possed to supply value of freety of Schoolstone of Crimond 22Hztalz-116 The destroy is the ratio of be estimated value of the deem two of parameter from its bypothesized value to it The west in passe theory testing the stricted

Z-Test Versus T-Test

- A How to choose Mull Hypothans JZ-Test is a statistical hypothesis test that
 follows a normal distribution while 7- Test
 follows a Students 7-distribution
- > A T-Test is a appropriate when you are handling small samples (nx30) while a z-Test is appropriate when you are handling moderate to large Samples (n730)
- -> T- Test is more adaptable than z-test since z-Test will often require certain conditions to be reliable. Additionally, 7- Test has many methods that will suit any need minimo to similar all limited
- > 7- Tests are more commonly used than z- Tests.
- > Z- Tests are preferred than 7- Tests when standard deviations are known

That house har a + How to choose Mull Hypotheris? => e.g. A Criminal is convicted for a crime. - A 7- Test is a appropriate when you are handling If the Judge thinks he is not guilty then no need for a trial. (Means no need to collect the evidence) Mallin Guilty and Idalaho man Int Alternate: al Not Guilty and a super all Additionally it tell has many methods that will So, I will the evidence of criminal is Guilty or 7- Tely are more commanly used than 7- Tells 7 Tests are prelated than 7-test when taptant deviction are known

11. Hypothesis Testing Case Study - (Manoj M)

* Formula for skewness

= Skew P

(For Population)

n observation

* Histogram

- Continuous data

-> formation of bins (clustering the data)

> Very much presentable as compared to line chart, bar chart or scatter plat

* He can use "frequency" formula

= frequency (data_array, bins-array)

data-array = data bins-array = bins

Select All -> Intrife formula -> click oth +shift + Enter (Array fill)

to F Stat value = Highert Variance (Majorner) ? Lowest Variance Pepulation) nobjection formation of home (clustering the date) S Very much presentable as compared to