Parallel Design Two Sample T test

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#2 Treatment Comparisons in Clinical Trials  
#2.1 Analysis of Parallel Design  
#two sample t-test  
#Assuming equal variance

alpha=0.05  
a=c(2.5,2.25,2.35,2.60,2.10,2.45,2.50,2.1,2.2)  
b=c(2.45,2.50,2.60,2.77,2.60,2.55,2.65,2.75,2.45,2.50)  
stat=t.test(a,b,alternative = 'less',var.equal=T)  
stat

##   
## Two Sample t-test  
##   
## data: a and b  
## t = -3.4842, df = 17, p-value = 0.00142  
## alternative hypothesis: true difference in means is less than 0  
## 95 percent confidence interval:  
## -Inf -0.1217297  
## sample estimates:  
## mean of x mean of y   
## 2.338889 2.582000

ifelse(stat$p.value>alpha,"Reject Null Hypothesis","Fail To Reject Null Hypothesis")

## [1] "Fail To Reject Null Hypothesis"