Final Project

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μ1, Mean Home

u2, Mean Office

$$H0: \mu 1 = \mu 2$$

$$H1: \mu 1 > \mu 2$$

$$p - val < 0.05$$

```
tempWaterData <- Water_Intake%>%
                 select(Environment,Ounces)%>%
                 filter(!is.na(Environment))%>%
                 arrange(Environment)

t.test(Ounces~Environment, data=tempWaterData, alternative="greater")
```

```
##
##  Welch Two Sample t-test
##
## data:  Ounces by Environment
## t = 3.2566, df = 13.266, p-value = 0.003051
## alternative hypothesis: true difference in means between group Home and
group Office is greater than 0
## 95 percent confidence interval:
##  6.684251      Inf
## sample estimates:
##   mean in group Home mean in group Office
##                50.375               35.750
```

We reject the H0, we have enough evidence to conclude that the mean number of ounces drank on days where I worked from home is significantly greater than the mean number of ounces drank when working in the office.

```
tempWaterData <- Water_Intake%>%
                 select(Environment,Ounces)%>%
                 filter(!is.na(Environment))%>%
                 arrange(Environment)

tempWaterData <- tempWaterData%>%
                 group_by(Environment)%>%
                 summarise(OuncesMean=mean(Ounces))
```

```
ggplot(tempWaterData,aes(x=Environment,y=OuncesMean,fill=Environment))+geom_c
ol(color="black",lwd=1)+geom_text(aes(label=OuncesMean),vjust=2,colour="white
")+labs(title="Water Intake",x="Environment",y="Mean Ounces of Water")
```