Introduction to Data Analysis and Visualization with R

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Date Frames: Review

```
library(datasets)
?ChickWeight
df<-ChickWeight
head(df)
summary(df)
head(df$weight)
head(df[df$weight > 300,])
```

Base R Plotting

```
?beaver1
par(mfrow=c(1,3))
plot(beaver2$temp,type="l", main = "Beaver Fever", xlab = "
lines(beaver1$temp, col="blue")
hist(beaver1$activ, main = "Beaver 1 Activity",
     ylab = NULL)
hist(beaver2$activ, main = "Beaver 2 Activity",
     ylab = NULL)
par(mfrow = c(1,1))
```

ggplot2 link

ggplot2

T-Test

```
?t.test
t.test(beaver1$temp,beaver2$temp)
summary(ChickWeight)
t.test(ChickWeight[ChickWeight$Diet == 2,]$weight,
       ChickWeight[ChickWeight$Diet == 3,]$weight)
plot(ChickWeight$Time,ChickWeight$weight)
head(cbind(ChickWeight[ChickWeight$Diet == 2,]$Time,
           ChickWeight[ChickWeight$Diet == 3,]$Time))
t.test(ChickWeight[ChickWeight$Diet == 2,]$weight
      ,ChickWeight[ChickWeight$Diet == 3,]$weight,
       paired = T)
```

LaTeX

- Sweave File
- R Studio Preferences: Sweave $\rightarrow$ knitr
- May need to install knitr package. Check with `library()`
- Add code chunks
- Set `echo` and `eval` according to needs