Regression Example

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May 1, 2016

Create data

```
x<-rnorm(100)
y<-rnorm(100,2,.5)+x
```

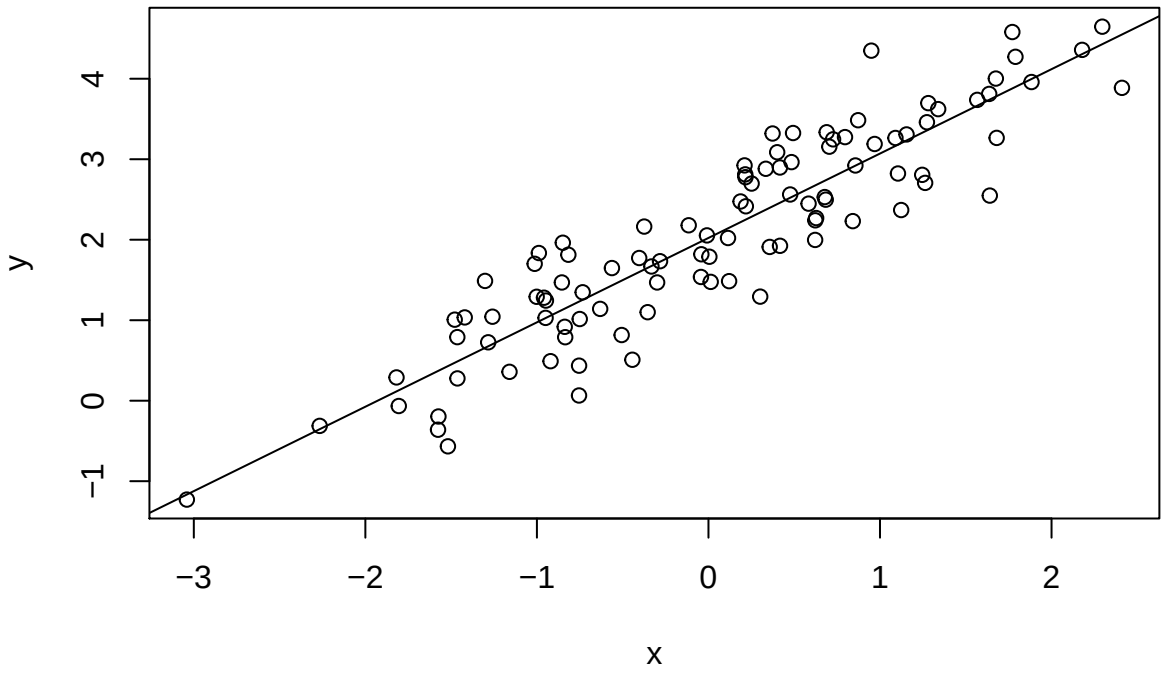
Run regression analysis

```
xy.reg<-lm(y~x)
summary(xy.reg)
```

```
##
## Call:
## lm(formula = y ~ x)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.19324 -0.41703  0.05108  0.37924  1.33137
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  2.02208    0.05226   38.69   <2e-16 ***
## x            1.04844    0.04767   21.99   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.522 on 98 degrees of freedom
## Multiple R-squared:  0.8315, Adjusted R-squared:  0.8298
## F-statistic: 483.7 on 1 and 98 DF,  p-value: < 2.2e-16
```

Plot with regression line

```
plot(x,y)
abline(xy.reg)
```


y
4
3
2
1
0
−1
−3
−2
−1
0
1
2
x