

Indicator Example Code

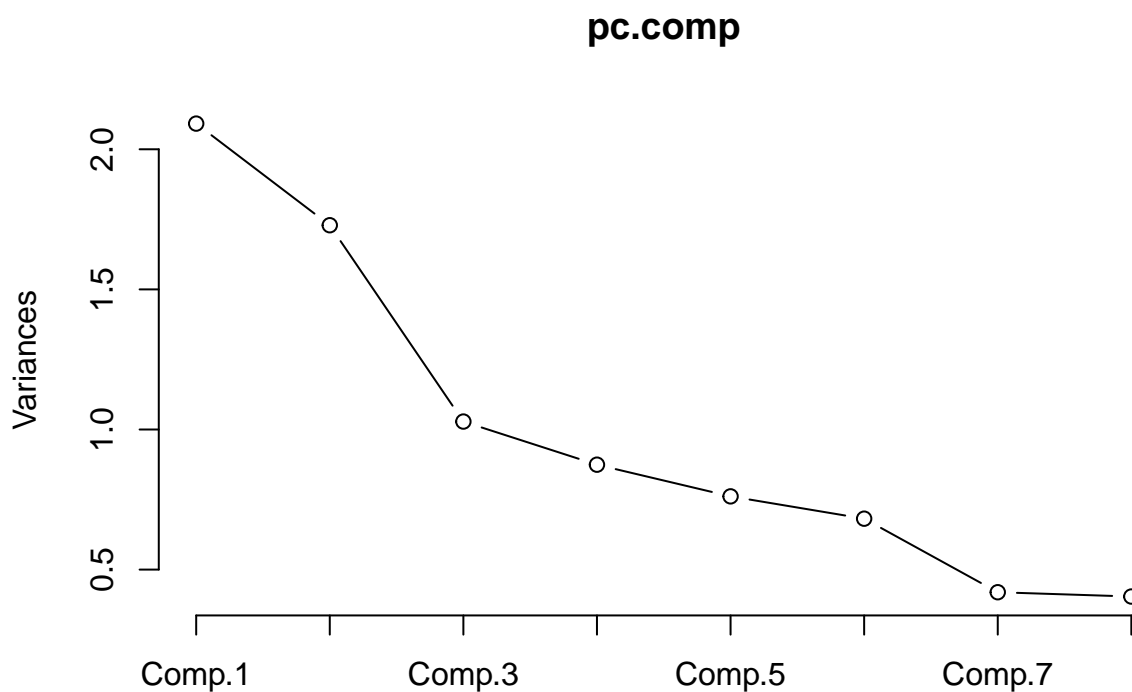
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```
library(data.table)
# set the working directory
# comma delimited data and no header for each variable
RawData <- fread("http://mlern.ics.uci.edu/databases/pima-indians-diabetes/pima-indians-diabetes.data")
RawData <- as.data.frame(RawData)
#In Raw Data, the response variable is its last column;
#and the remaining columns are the predictor variables.

responseY <- RawData[9]
predictorX <- RawData[,1:8]

pc.comp <- princomp(scale(predictorX))
screplot(pc.comp, type="line")
```



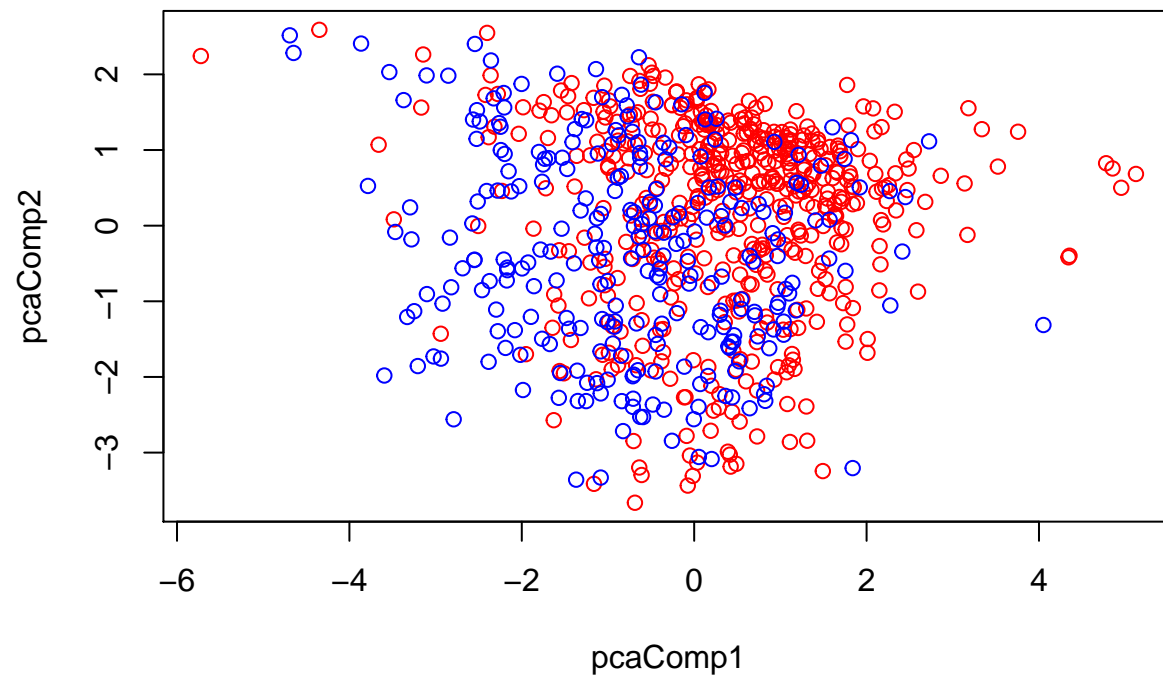
```
pc.comp <- princomp(scale(predictorX))$scores
pc.comp1 <- pc.comp[,1]
pc.comp2 <- pc.comp[,2]
X <- cbind(1,pc.comp1, pc.comp2)

class1 <- which(responseY==0)
class2 <- which(responseY==1)
Y <- matrix(0,dim(responseY)[1],2)
Y[class2,1] <- 1
Y[class1,2] <- 1
```

```
betaHat <- solve(t(X)%*%X)%*%t(X)%*%Y
Y1 <- X%*%betaHat[,1]
Y2 <- X%*%betaHat[,2]

plot(pc.comp1[class1],pc.comp2[class1],main="scatter plot",
     xlab="pcaComp1",ylab="pcaComp2",col="red")
points(pc.comp1[class2],pc.comp2[class2],col="blue")
```

scatter plot



[View\(RawData\)](#)