CSC433 Assignment 6
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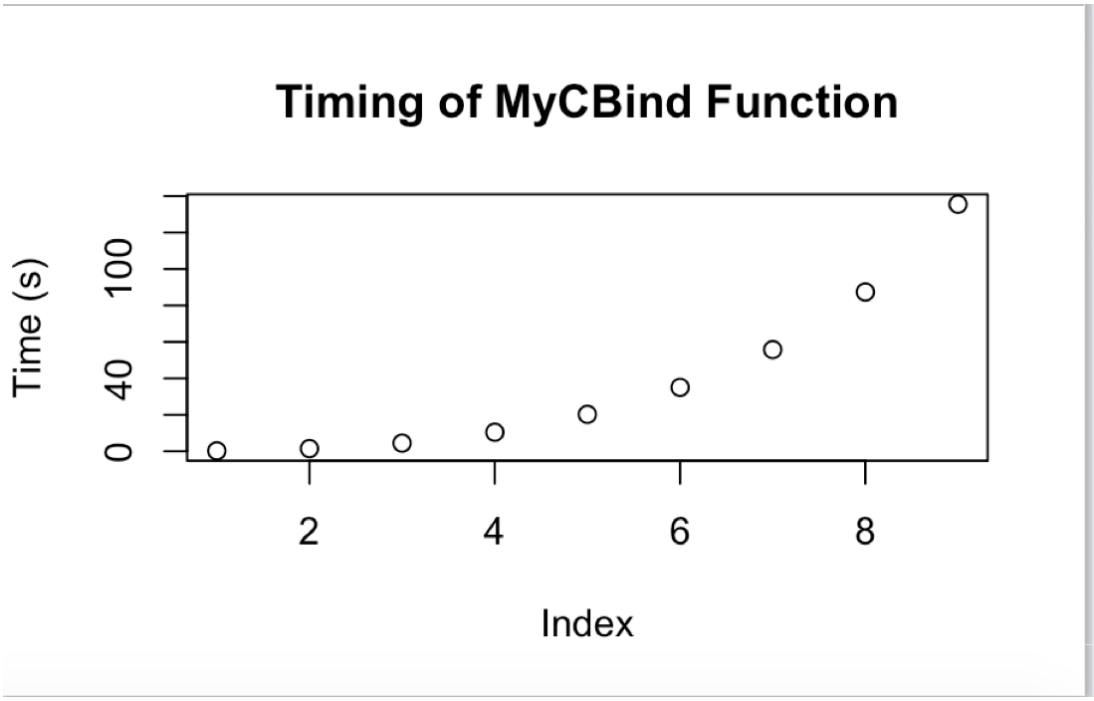
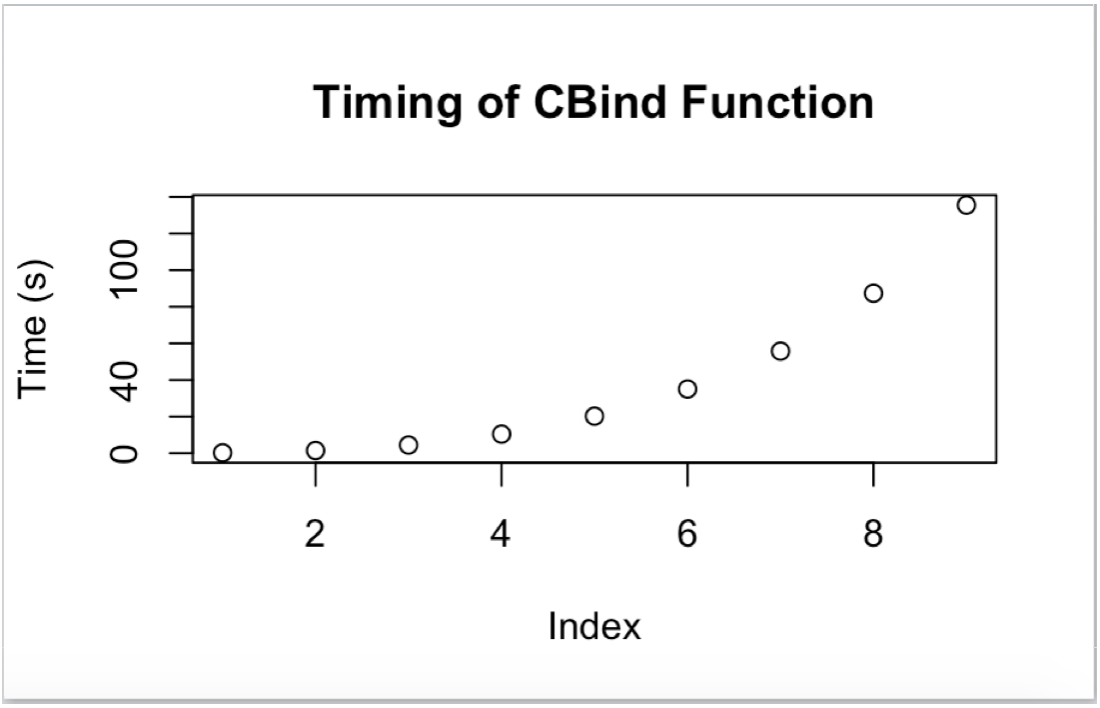
Code:

```
mycbind<-function(X,Y){
        newRowCount<-sqrt(length(X))
        newColCount<-(2*newRowCount)
        vect<-c(X[,1])
        for(i in 2:newRowCount){
                vect<-c(vect,X[,i])
        }
        for(i in 1:newRowCount){
                 vect<-c(vect,Y[,i])
         }
        newMatrix<-matrix(vect,nrow = newRowCount,ncol = newColCount)
        return(newMatrix)
 }


points1<-c()
points2<-c()
for(i in c(200,400,600,800,1000,1200,1400,1600,1800)){
        X1<-matrix(runif(i *i), i, i)
        Y1<-matrix(runif(i *i), i, i)
        time1<-system.time(mycbind(X1,Y1),gcFirst = TRUE)
        newpoint<-time1[3]
        points1<-c(points1, newpoint)

        time2<-system.time(cbind(X1,Y1),gcFirst = TRUE)
        newpoint2<-time1[3]
        points2<-c(points2,newpoint2)

plot.default(points1, main = "Timing of MyCBind Function", ylab="Time (s)”)
plot.default(points2, main = "Timing of CBind Function", ylab="Time (s)")
```

Graphs:


Timing of MyCBind Function
Time (s)
0
40
100
2
4
6
8
Index


Timing of CBind Function
Time (s)
0
40
100
2
4
6
8
Index

Summary:

As seen in the visuals, as well as in the vector print outs below, our times are the same for both methods of binding. I realize this is not the result I was supposed to get, but can't find my error. I emailed the professor and might turn in another version later. If you (the grader) happen to see my mistake, I would love to know what it is! Thanks.

```
> points1
elapsed elapsed elapsed elapsed elapsed elapsed elapsed elapsed elapsed
  0.219   1.468   4.452  10.436  20.251  35.065  55.762  87.388 135.566
> points2
elapsed elapsed elapsed elapsed elapsed elapsed elapsed elapsed elapsed
  0.219   1.468   4.452  10.436  20.251  35.065  55.762  87.388 135.566
```