install.packages("ISLR")

library(MASS)

install.packages("DAAG")

library(DAAG)

library(nlme)

library(ISLR)

View(mtcars)

lmodel<-cv.lm(data = Auto, mpg ~ cylinders + displacement + horsepower + weight + acceleration + year + origin, m=2, dots = FALSE, seed = 29, plotit = TRUE, printit = TRUE)

lmodel<-cv.lm(data = Auto, mpg ~ cylinders + displacement + horsepower + weight + acceleration + year + origin, m=3, dots = FALSE, seed = 29, plotit = TRUE, printit = TRUE)

lmodel<-cv.lm(data = Auto, mpg ~ cylinders + displacement + horsepower + weight + acceleration + year + origin, m=8, dots = FALSE, seed = 29, plotit = TRUE, printit = TRUE)

cv.error.10 = rep (0,10)

set.seed(17)

for(i in 2:10)

{

lmodel <- cv.lm(data = Auto, mpg ~ cylinders + displacement + horsepower

+ weight + acceleration + year + origin, m = i , dots =

+ FALSE, seed=29, plotit=TRUE, printit=TRUE)

lmodel

cv.error.10[i]=attr(lmodel,"ms")

}

j<-1

for (j in 1:10)

{

# printing MS error for each value of K print(cv.error.10[j])

}

X=c(1,2,3,4,5,6,7,8,9,10)

Y=cv.error.10

plot(X,Y, type='l', xlab = "value of K" , ylab = "mean Square error", main = "with change in

value of K there is change in Mean Square Error")