

**Visual EDA:**



Histogram:

> hist(cdata$Neck\_Circ)

> hist(cdata$Chest\_Circ)

> hist(cdata$Abdomen\_circ)

> hist(cdata$Hip\_Circ)

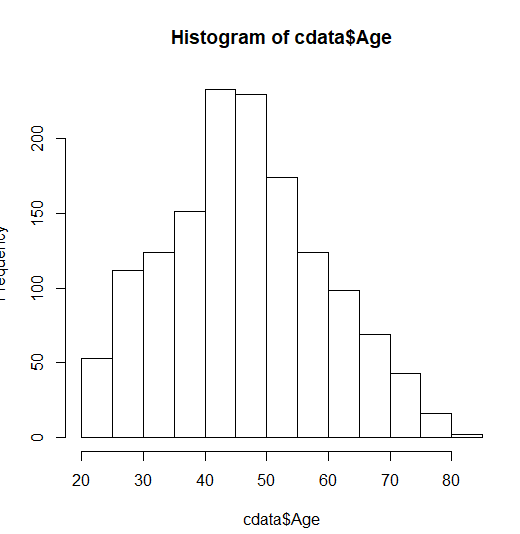
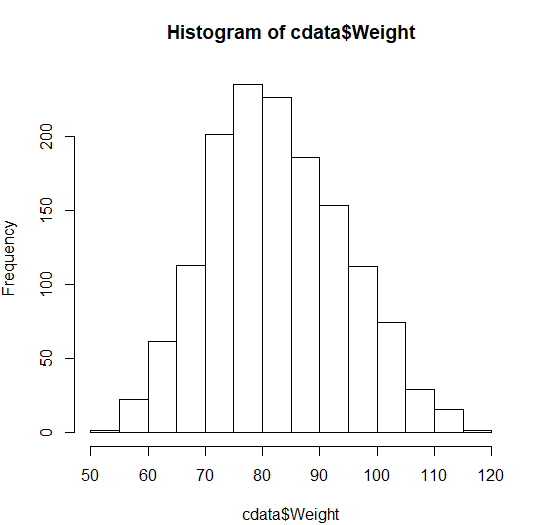
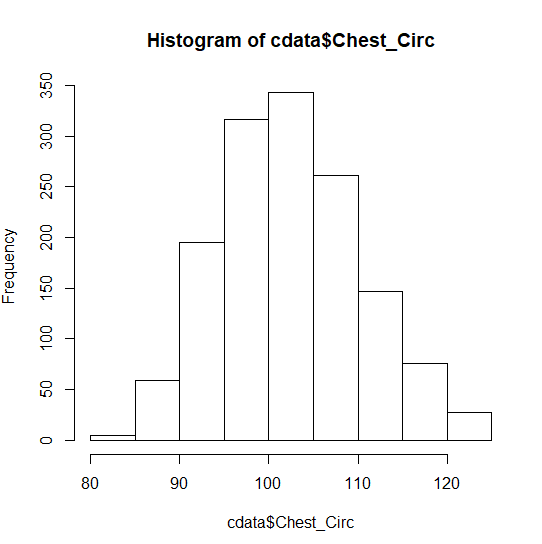
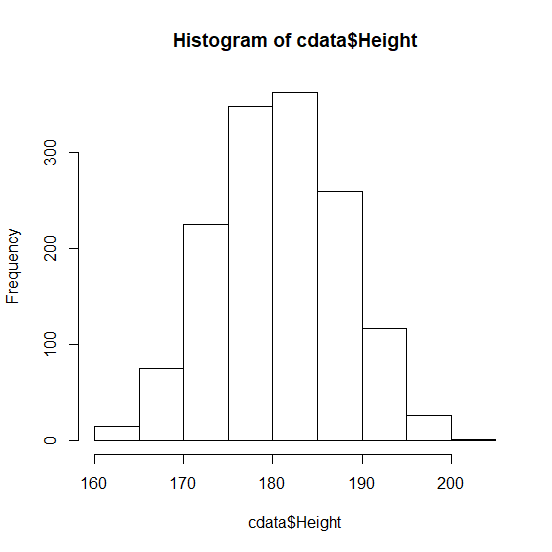
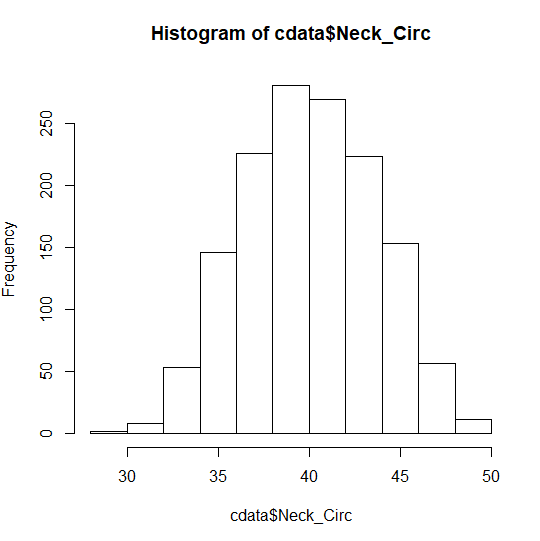
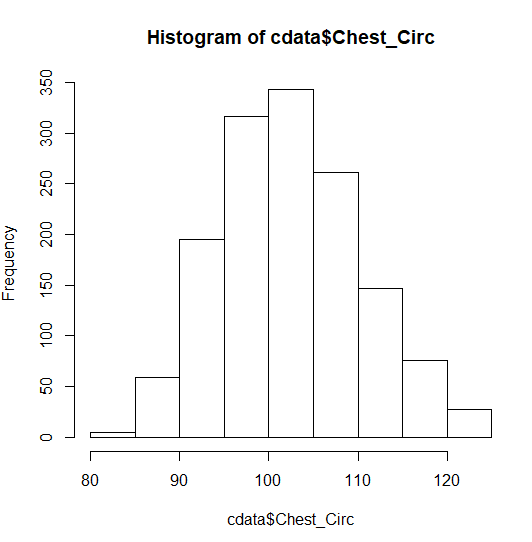
> hist(cdata$Thin\_Circ)

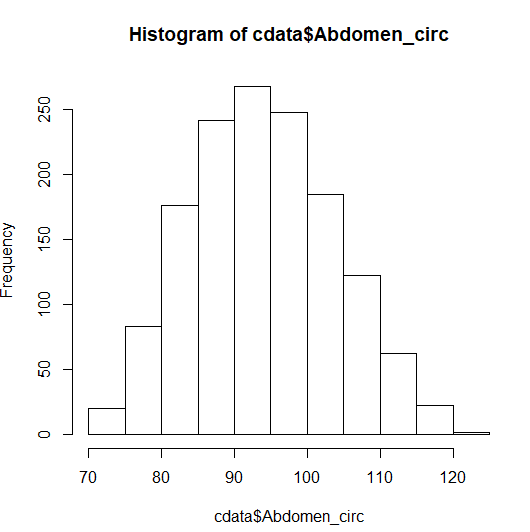
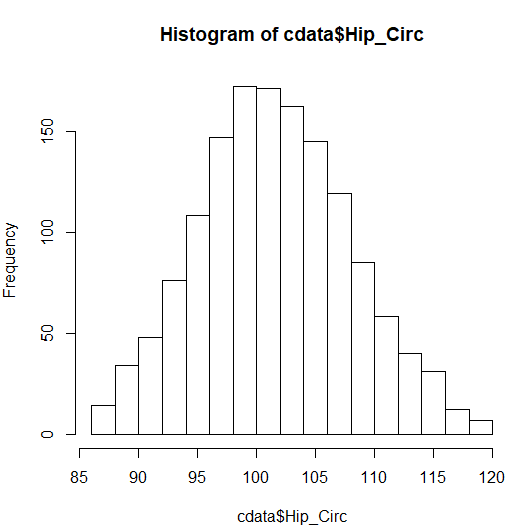
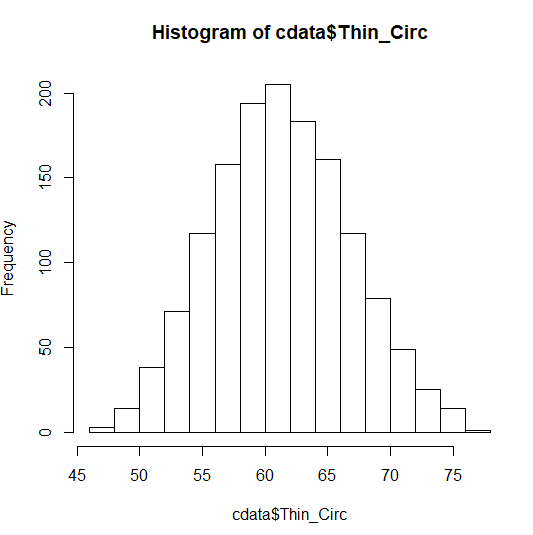
> hist(cdata$Knee\_Circ)

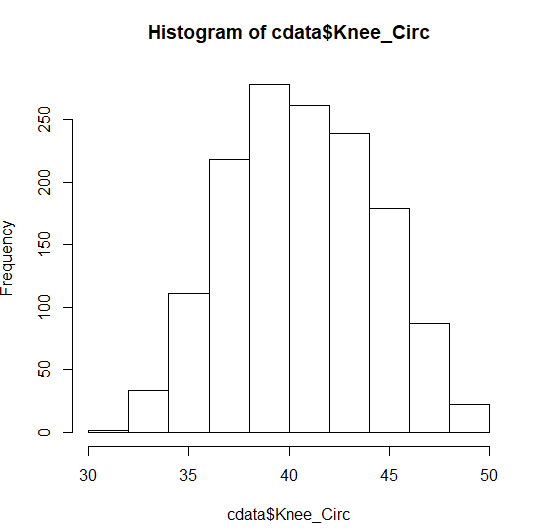
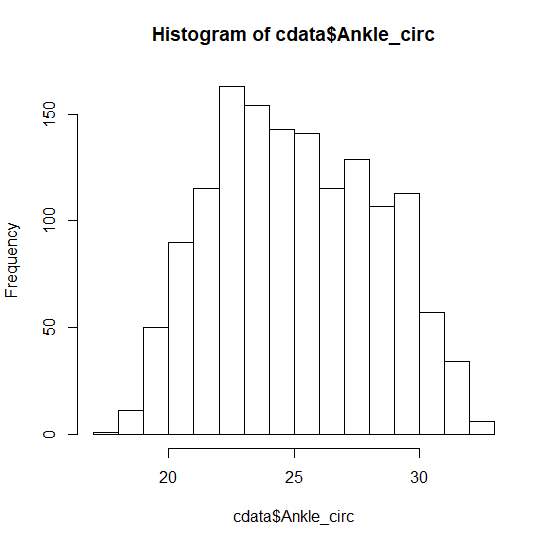
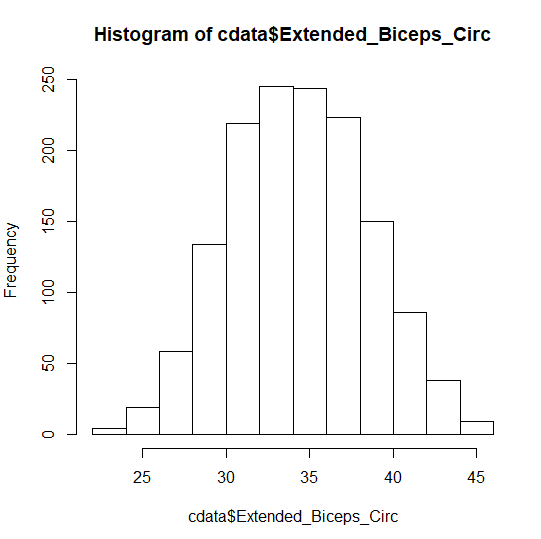
> hist(cdata$Ankle\_circ)

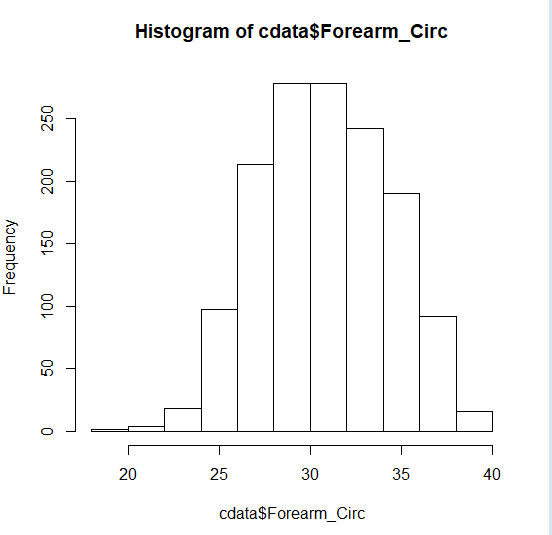
> hist(cdata$Extended\_Biceps\_Circ)

> hist(cdata$Forearm\_Circ)



Modeling:

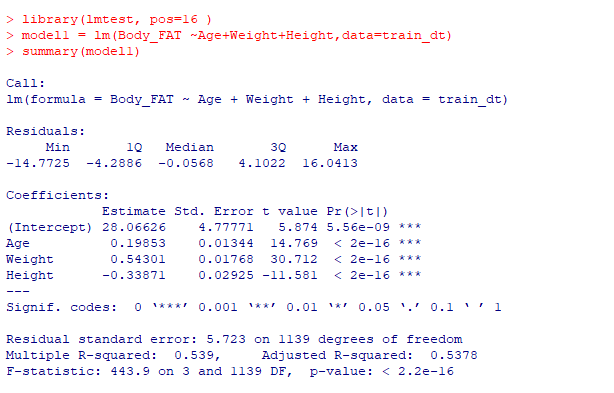
Spiriting data (80% Training and 20% Validation)

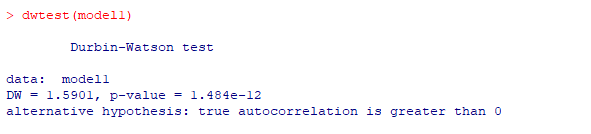
data=read.csv(file.choose(),)

dt = sort(sample(nrow(data),nrow(data)\*.8))

train\_dt = data[dt,]

test\_dt = data[-dt,]





Prediction using Test data:

m1\_predict=predict(model1,test\_dt)

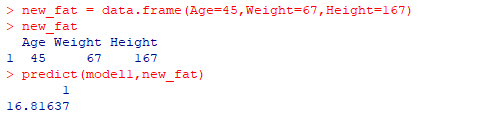


MAPE:

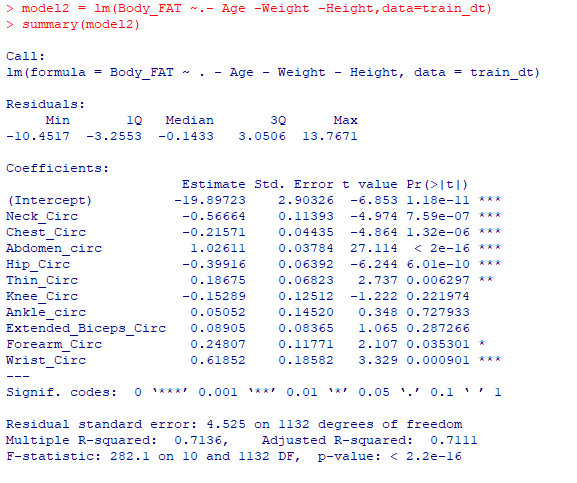


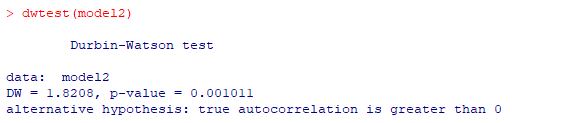
feture data :

ex : if paient age 45, height 167, weight 67 kgs what is bodyfat followed by model 1

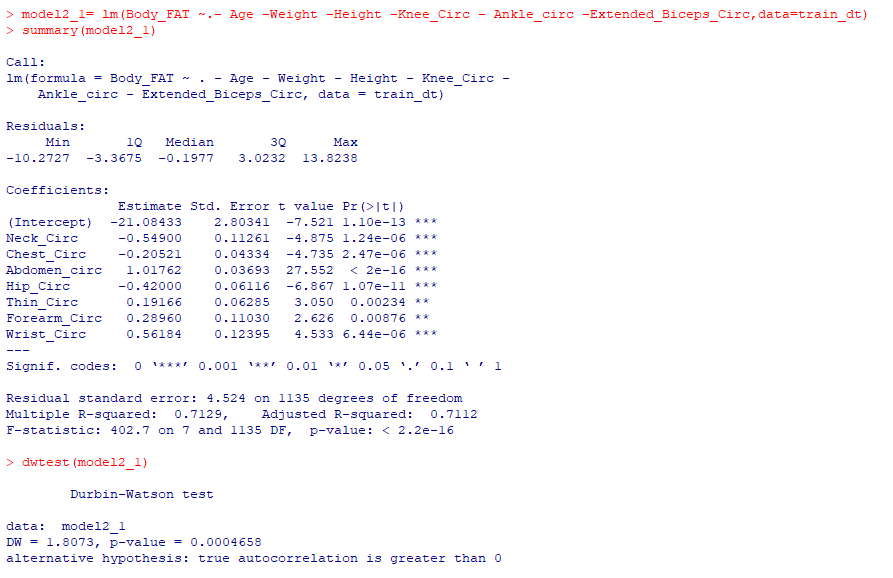


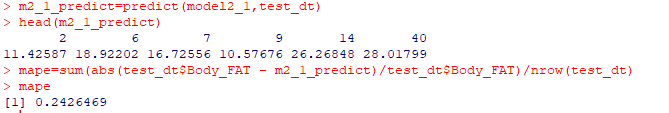
Model 2:





Improving Model 2 by eliminating VIF:





Improving Model 2 by eliminating VIF\_2:

