

POWERBI PRACTICALS

PRACTICAL NO.3

```
install.packages("party")
library(party)
input.dat = readingskills[c(1:105),]
png(file = "decisiontree.png")
output = tree(nativespeaker~age+shoesize+score data = input.dat)
plot(output)
dev.off
```

PRACTICAL NO.4 K MEANS

```
library(iris)
iris
newiris<-iris
newiris$Species<-NULL
newiris
kc<-kmeans(newiris,3)
kc
table(iris$Species,kc$cluster)
plot(newiris[c("Sepal.Length", "Sepal.Width")],col=kc$cluster)
points(kc$centers[,c("Sepal.Length", "Sepal.Width")],col=1:3,pch=8,cex=2)
```

PRACTICAL NO.5 LINEAR REGRESSION

```
X<-c(151,174,138,186,128,136,179,163,152,131)
y<-c(63,81,56,91,47,57,76,72,62,48)
relation<-lm(y~x)
print(relation)
print(summary(relation))
a<-data.frame(x=170)
result<-predict(relation,a)
print(result)
plot9y,x,col="blue",main="Height&Weight Regression +
abline(lm(x~y)),cex=1.3,pch=16,
```

PRACTICAL NO.6 TIME SERIES

```
rainfall1<-c(799,174.8,865.1,1334.6,635.4,918.5,685.5,998.6,784.2,965)
rainfall2<-c(655,1306.9,1323.4,1172.2,562.2,824.4,1265.5,799.6,1105.6,)
combined.rainfall<-matrix(c(rainfall1,rainfall2),nrow=12)
rainfall.timeseries<-ts(combined.rainfall,start=c(2012,1),frequency = 12)
print(rainfall.timeseries)
plot(rainfall.timeseries)
```

PRACTICAL NO.9 LOGISTIC REGRESSION

```
quality<-read.csv()
str(quality)
table(quality$poorcare)
library(coTools)
set.seed(88)
split=sample.split(quality$poorcare,splitratio=0.75)
quality_Train = subset(quality,split == TRUE)
quality_Test = subset(quality,split == FALSE)
nrow(quality_Test)

qualityLog = glm(poorcare~officevisits +
Narcotics,data=qualityTrain,Family=binomial)

summary(qualityLog)

predict_Train = predict(qualityLog, type = "response")
summary(predict_Train)

tapply(predict_Train,quality_Train$poorcare,mean)
table(quality_Train$poorcare,predict_Train>0.5)
table(quality_Train$poorcare,predict_Train>0.2)

library(ROCR)

ROCRPred = prediction(quality_Train$poorcare)
ROCRpref = performance(ROCRpred,"tpr","fpr")
plot('ROCRpref')
plot('ROCRpref,colorize=TRUE')
plot('ROCRpref,colorize=TRUE',print.cutoffs.at=seq(0,1,by = 0.1),text.adj =
```

c(-0.2,1.7))