Experiment-1 Program

@relation exp1

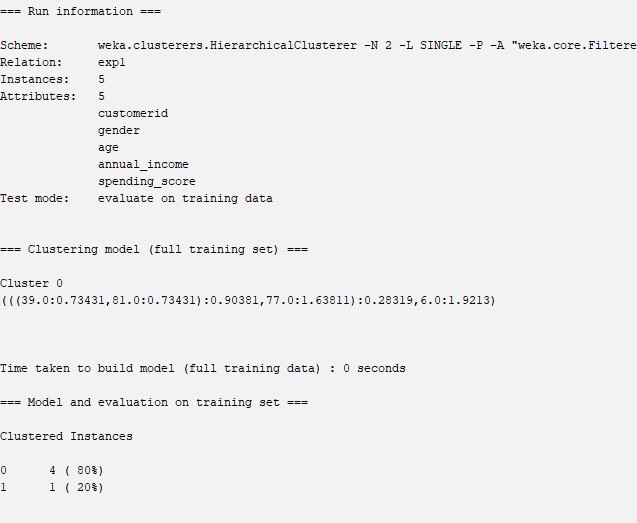
@attribute customerid numeric @attribute gender{male,female} @attribute age numeric

@attribute annual\_income numeric @attribute spending\_score numeric @data

1,male,19,15,39

2,male,21,15,81

3,female,20,16,6 4,female,23,16,77 5,female,31,17,40 Output



Experiment-2 Program

@relation exp1

@attribute emp\_id numeric @attribute gender{male,female} @attribute age numeric

@attribute salary numeric @attribute credit numeric @data

111,male,28,1500000,39

222,male,25,1500000,27

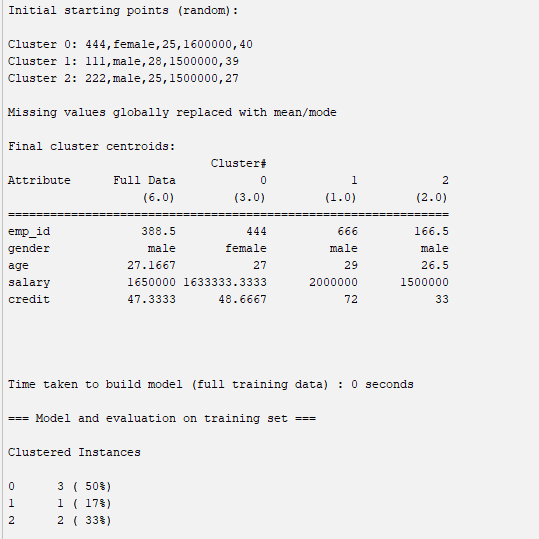
333,female,26,1600000,42

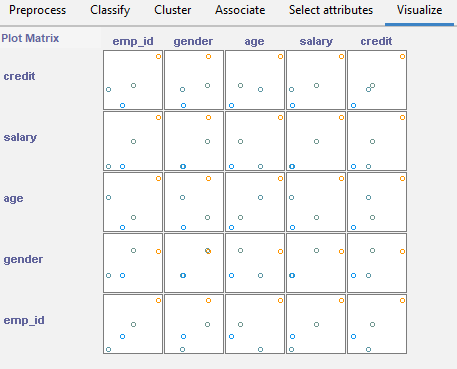
444,female,25,1600000,40

555,female,30,1700000,64

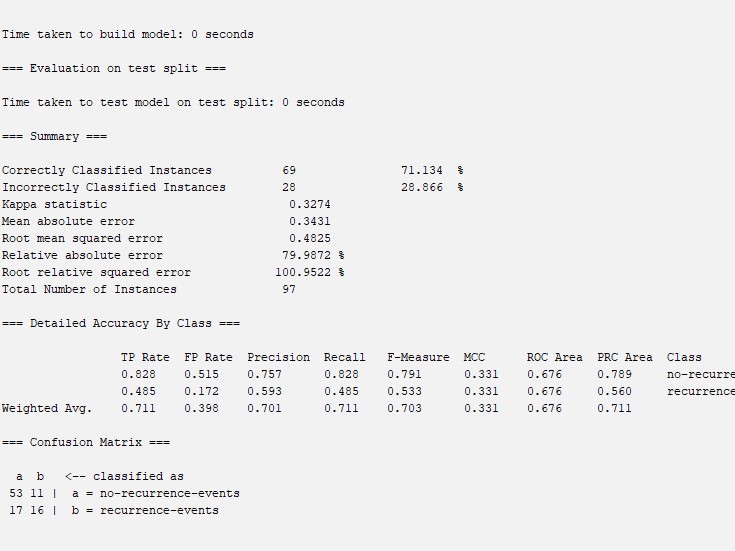
666,male,29,2000000,72

Output





Experiment-3 naivebayes in breast\_cancer Output



Experiment-4 Program

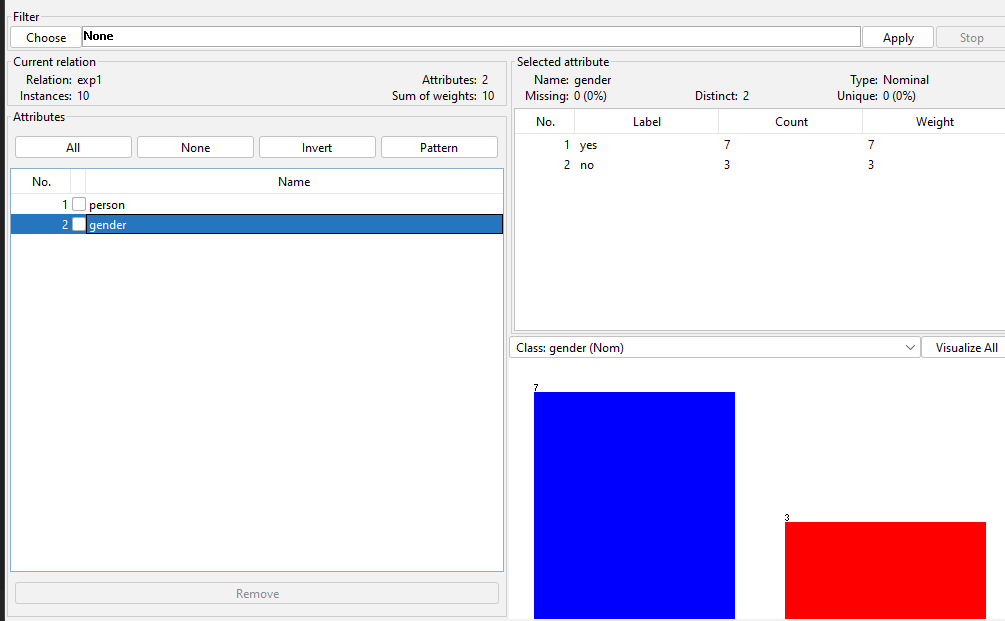
@relation exp1

@attribute person{gopu,babu,baby,gopal,krishna,jai,dev,malini,hema,anu} @attribute gender{yes,no}

@data gopu,yes babu,yes baby,yes gopal,no

krishna,yes jai,no

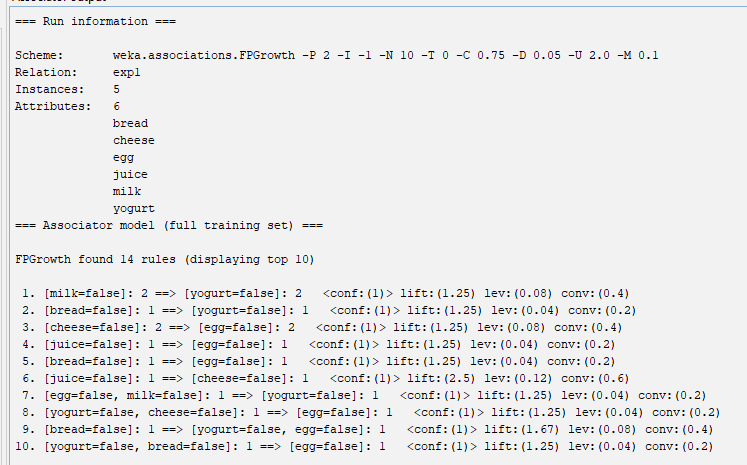
dev,no malini,yes hema,yes anu,yes output;



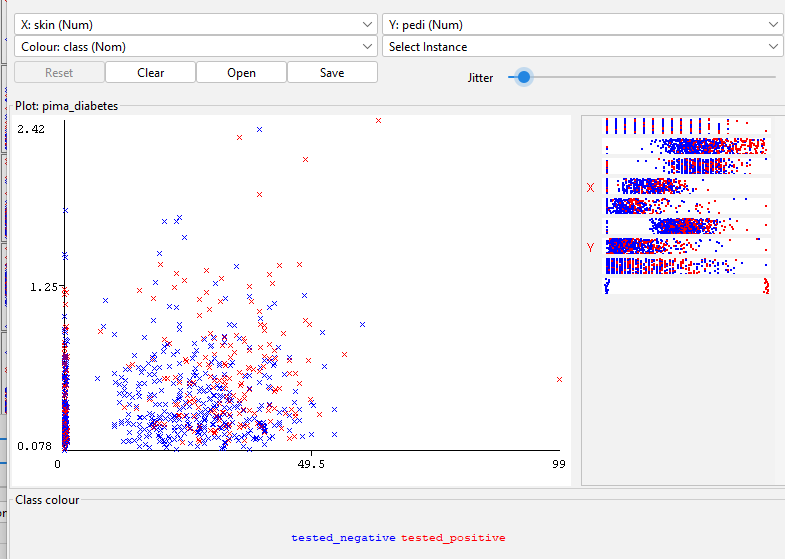
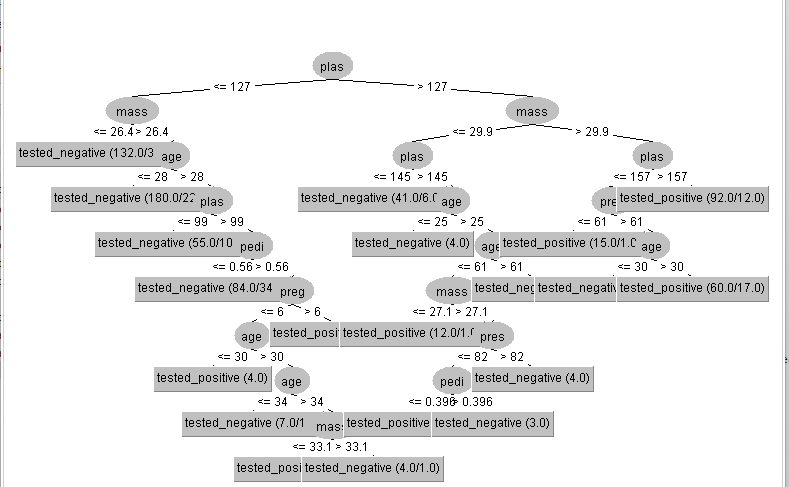
Experiment-6 Program

@relation exp1

@attribute bread{true,false} @attribute cheese{true,false} @attribute egg{true,false} @attribute juice{true,false} @attribute milk{true,false} @attribute yogurt{true,false} @data true,true,true,true,false,false true,true,false,true,false,false true,false,false,false,true,true true,false,false,true,true,false false,true,false,true,true,false output;



Experiment-7



Experiment-8 library(dplyr) library(tibble)

library(ggplot2)

data <- c(55, 60, 71, 63, 55, 65, 50, 55,58,59,61,63,65,67,71,72,75)

equi\_depth <- quantile(data, probs = c(0, 1/3, 2/3, 1))

equi\_depth\_partitioned <- cut(data, breaks = equi\_depth, labels = c("Low", "Medium", "High"), include.lowest = TRUE)

min\_value <- min(data) max\_value <- max(data)

width <- (max\_value - min\_value)/3

equal\_width <- seq(min\_value, max\_value, by = width)

equal\_width\_partitioned <- cut(data, breaks = equal\_width, labels = c("Low", "Medium", "High"), include.lowest = TRUE)

kmeans\_model <- kmeans(data, centers = 3)

cluster\_assignments <- as.factor(kmeans\_model$cluster)

levels(cluster\_assignments) <- c("Low", "Medium", "High")

data\_tibble <- tibble(data = data, equi\_depth\_partitioned = equi\_depth\_partitioned,

equal\_width\_partitioned = equal\_width\_partitioned, cluster\_assignments = cluster\_assignments)

ggplot(data\_tibble, aes(x = data)) + geom\_histogram(binwidth = 5) +

facet\_wrap(~equi\_depth\_partitioned, ncol = 1, scales = "free\_x") + ggtitle("Histogram using Equi-Depth Partitioning") ggplot(data\_tibble, aes(x = data)) +

geom\_histogram(binwidth = 5) +

facet\_wrap(~equal\_width\_partitioned, ncol = 1, scales = "free\_x") + ggtitle("Histogram using Equal-Width Partitioning") ggplot(data\_tibble, aes(x = data)) +

geom\_histogram(binwidth = 5) +

facet\_wrap(~cluster\_assignments, ncol = 1, scales = "free\_x") +

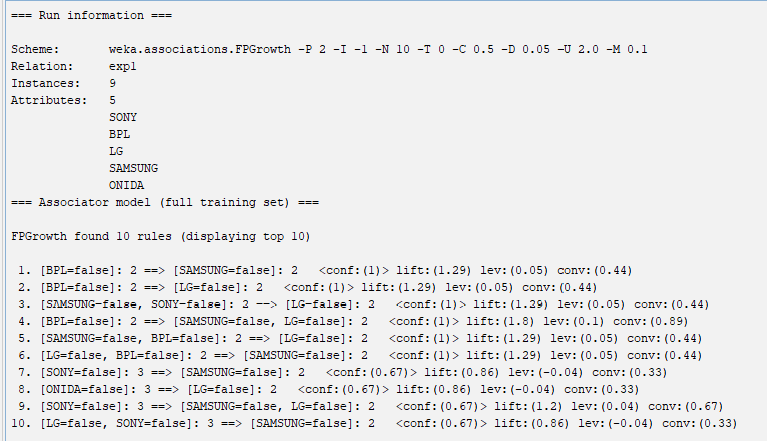
experiment-9 program

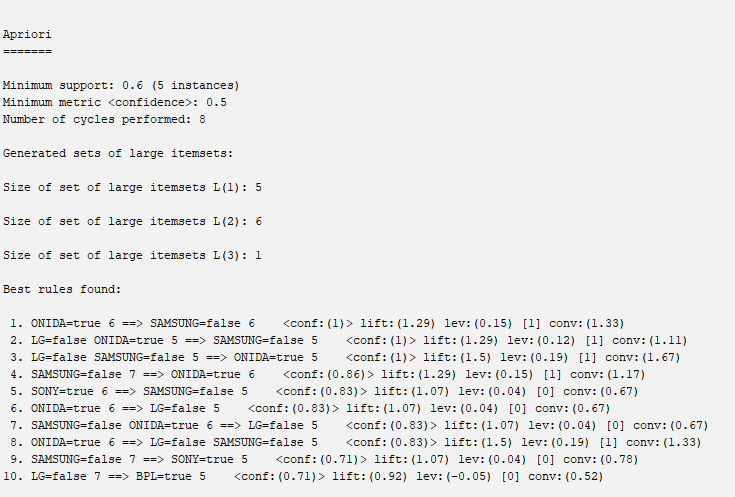
@relation exp1

@attribute SONY{true,false} @attribute BPL{true,false} @attribute LG{true,false}

@attribute SAMSUNG{true,false} @attribute ONIDA{true,false} @data

true,true,true,false,false false,true,false,true,false false,true,false,false,true true,true,false,true,false true,false,false,false,true false,true,false,false,true true,false,false,false,true true,true,true,false,true true,true,false,false,true output;





Experiment-10 Program

speed<-c(78,81,82,74,83,82,77,80,70)

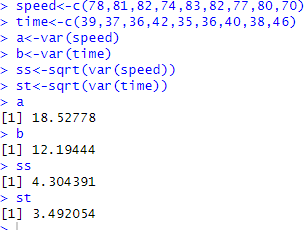
time<-c(39,37,36,42,35,36,40,38,46)

a<-var(speed) b<-var(time)

ss<-sqrt(var(speed)) st<-sqrt(var(time)) a

b ss st

output



Experiment-11

a<-c(100,70,60,90,90)

min=0 max=1

v<-((a-min(a)/max(a)-min(a))\*max+min)/100 summary(v,method=c("range"))

v #zscore

w=mean(a) s=sd(a) z=(a-w)/s

summary(z) z

output

