DATA MINING
WINE QUALITY

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CONTENT

01 link github project = https://github.com/hendry456/tugasbesardatamine

02 dataset = winequality-white.csv

03 Akun github=
1. arifwidaryanto2
2. andikapaska
3. jayanapitupulu
4. hendry456

01

Proses Data Mining

Label & Keterangan

4 = sangat tidak baik

5 = tidak baik

6 = sedang

7 = baik

8 = sangat baik

Full Code

```
setwd("D:/TugasBesarDataMine")

getwd()

dataset <- read.csv("winequality-white.csv", sep= ";")

install.packages("C50")

install.packages("printr")

library(C50)

library(printr)

dataset["quality"]<-lapply(dataset["quality"],factor)

str(dataset)

model <- C5.0(quality ~., data=dataset)

model

summary(model)

plot(model)

datatesting<-dataset[,1:11]

predictions <- predict(model, datatesting)

table(predictions, dataset$quality)
```

Terjemahan

fixed acidity = keasaman tetap
volatile acidity =keasaman tidak tetap
citric acid = asam sitrat
residual sugar = sisa gula
chloride = klorida
free sulfur dioxide = sulfur oksida bebas
total sulfur dioxide = total sulfur oksida
density = massa jenis
ph = ph
sulphate = sulfat
alcohol = alkohol
quality = kualitas

Decision Tree Text

Decision tree:

```
alcohol > 10.4:
:...fixed.acidity <= 6.8:
:   :...fixed.acidity > 6.6: 8 (3)
:   :   fixed.acidity <= 6.6:
:   :   :...volatile.acidity <= 0.48: 7 (7/1)
:   :       volatile.acidity > 0.48: 8 (2)
:   fixed.acidity > 6.8:
:   :...alcohol <= 11.7:
:       :...free.sulfur.dioxide <= 22: 5 (4/1)
:       :   free.sulfur.dioxide > 22: 6 (6)
:       alcohol > 11.7:
:       :...citric.acid <= 0.38: 7 (3)
:           citric.acid > 0.38: 5 (2)
alcohol <= 10.4:
:...sulphates > 0.51:
   :...volatile.acidity > 0.25: 5 (6/1)
   :   volatile.acidity <= 0.25:
   :   :...total.sulfur.dioxide <= 124: 5 (2)
   :       total.sulfur.dioxide > 124: 6 (4/1)
   sulphates <= 0.51:
   :...sulphates > 0.37:
       :...citric.acid <= 0.14: 5 (3)
       :   citric.acid > 0.14: 6 (25/1)
       sulphates <= 0.37:
       :...volatile.acidity <= 0.23: 6 (4)
           volatile.acidity > 0.23:
           :...residual.sugar <= 2.9: 6 (2)
               residual.sugar > 2.9: 5 (6)
```
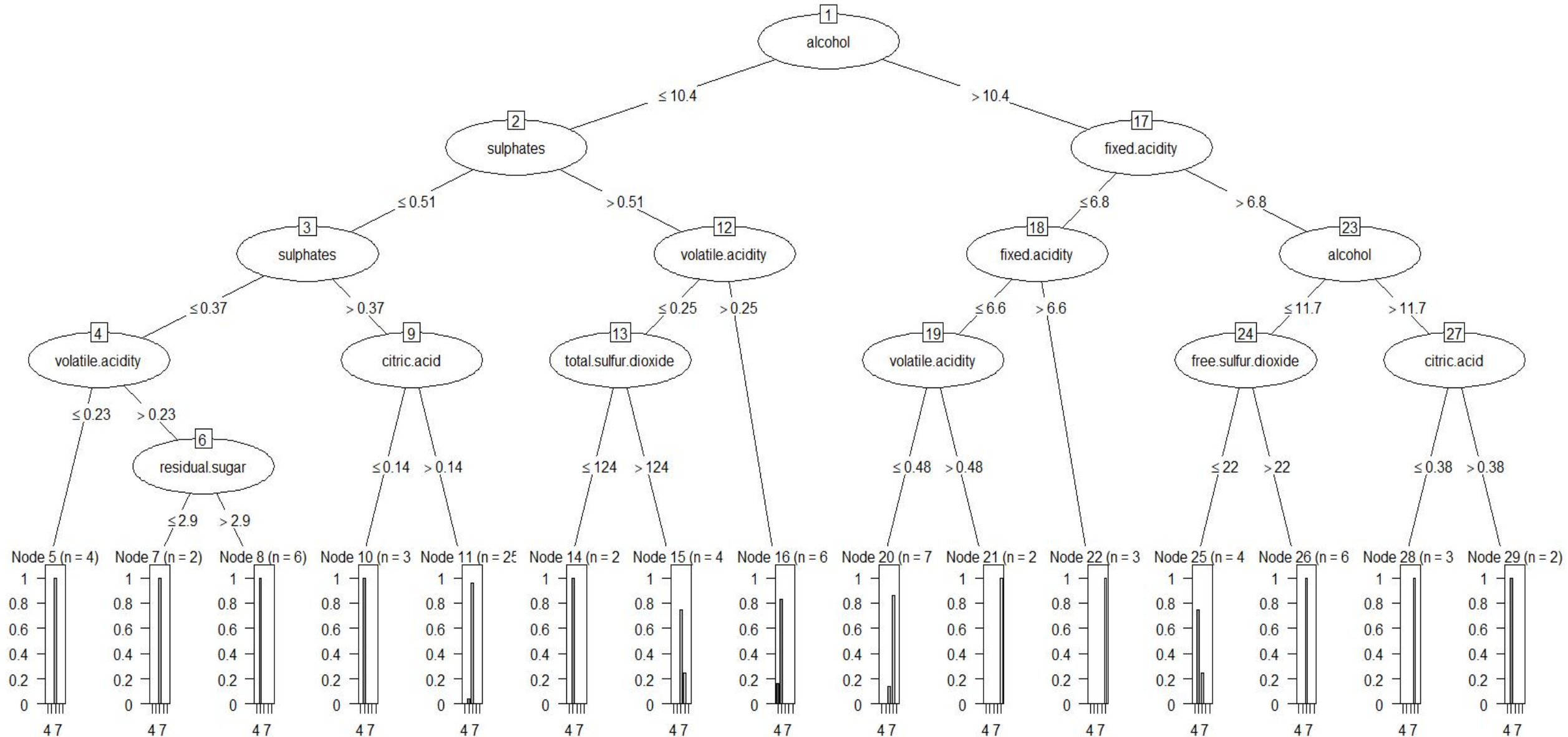
Decision Tree

Referensi

Dataset = https://archive.ics.uci.edu/ml/datasets/wine+quality

THANKS