

LAMPIRAN-LAMPIRAN

```
library(readr)
```

```
library(tidyr)
```

```
library(dplyr)
```

```
library(ggplot2)
```

```
library(skimr)
```

```
library(gridExtra)
```

```
library(caret)
```

```
library(e1071)
```

```
#import data
```

```
SISWA <- read_csv("SISWA.csv")
```

```
#memanipulasi data
```

```
SISWA <- SISWA%>%
```

```
mutate(
```

```
  GENDER = as.factor(GENDER),
```

```
  JURUSAN = as.factor(JURUSAN),
```

```
  RATARATA = as.factor(RATARATA),
```

```
  PEKERJAAN=as.factor(PEKERJAAN),
```

```
  STATUS = as.factor(STATUS),
```

```
  STATUS = sapply(STATUS,switch,"KERJA","KULIAH"),
```

```
  STATUS = ordered(STATUS,levels=c("KERJA","KULIAH"))
```

```
)
```

```
#melihat data

glimpse(SISWA)

# melihat data

skim (SISWA)

#DATA PREPROCESSING

set.seed(100)

#membagi data ke training dan testing

index_train <- sample(1:nrow(SISWA),0.5*nrow(SISWA))

train <- SISWA[index_train, ]

View(train)

test <- SISWA[-index_train, ]

View(test)

# membuat model Naive Bayes

model=naiveBayes(STATUS~.,data=train)

model

#perhitungan naive bayes

pred=predict(model,test)

pred

pred_nb=predict(model,train)

pred_nb

#VALIDATION

#CONFUSIN MATRIK NAIVE BAYES
```

```

confnb <- table(test$STATUS, pred)

confnb

#analisis hasil perhitungan Naive bayes

hasil=confusionMatrix(pred,test$STATUS)

hasil

#hasil prediksi data test

hasil_gab_test <- cbind(test, hasil_pred = pred)

hasil_gab_test

#hasil prediksi data Train

hasil_gab_train <- cbind(train, hasil_pred = pred_nb)

hasil_gab_train

library(ROCR)

# MENGAMBIL PELUANG KELAS POSITIF

naive_pred_test <- predict(model, test, type = "raw")

naive_pred_positive <- naive_pred_test[ , 2]

# PREDICTION

roc_naive <- prediction(predictions = naive_pred_positive, #peluang kelas positif
                        labels = test$STATUS) #label aktual dari data test

#PERFORMANCE

roc_naive_vec <- performance(roc_naive, measure = "tpr", x.measure = "fpr")

performance(roc_naive, measure = "auc")@y.values

```