

LAPORAN ANALISIS UTS DATA SCIENCE



Oleh:

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LEMBAR JAWABAN SOAL

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+ Code + Text
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from sklearn.model_selection import train_test_split
from sklearn.tree import DecisionTreeClassifier, export_text
from sklearn.metrics import accuracy_score
from sklearn import preprocessing
import pandas as pd
import csv

with open('hotel_booking_data.csv', newline='') as csvfile:
    df = list(csv.reader(csvfile))

le = preprocessing.LabelEncoder()
for row in df:
    row[4] = le.fit_transform([row[4]])
    row[6] = le.fit_transform([row[6]])
    row[16] = le.fit_transform([row[16]])

X = [row[:-1] for row in df]
y = [row[-1] for row in df]

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state=42)

model = DecisionTreeClassifier()
model.fit(X_train, y_train)

y_pred = model.predict(X_test)

accuracy = accuracy_score(y_test, y_pred)
print(f'Akurasi: {accuracy * 100:2f}%')

Akurasi: 82.081323%
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import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.naive_bayes import GaussianNB
from sklearn import metrics
from sklearn.preprocessing import LabelEncoder
from sklearn import svm
from sklearn.metrics import accuracy_score, confusion_matrix, classification_report

df = pd.read_csv('hotel_booking_nb.csv')

le = LabelEncoder()
df['status'] = le.fit_transform(df['booking_status'])

X = df.iloc[:, 1:-1]
y = df['booking_status']

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

modelNB = GaussianNB()

modelNB.fit(X_train, y_train)

y_predNB = modelNB.predict(X_test)

accuracyNB = metrics.accuracy_score(y_test, y_predNB)
print(f'Akurasi: {accuracyNB}%')

accuracy_class_1 = metrics.accuracy_score(y_test[y_test == 1], y_predNB[y_test == 1])
accuracy_class_0 = metrics.accuracy_score(y_test[y_test == 0], y_predNB[y_test == 0])

print(f'Akurasi untuk Booking Status = 0 :{accuracy_class_0}')
print(f'Akurasi untuk Booking Status = 1 :{accuracy_class_1}')

class_report = classification_report(y_test, y_predNB)
print('\nClassification Report:')
print(class_report)

Akurasi: 1.0%
Akurasi untuk Booking Status = 0 :1.0
Akurasi untuk Booking Status = 1 :1.0

```

Link Google Drive : https://drive.google.com/drive/folders/13jB75C_h2xX5-mmZXAb-KfMLqicRjvHk?usp=sharing