In [34] import pandas as pd

from [URL_10]del_selection import LeaveOneOut, cross_val_score
from [URL_10]near_model import Logistic Regression

from [URL_10]eprocessing import LabelEncoder

import numpy as np

In [32] df = [URL_10]ad_csv("Heart.csv")

df['Ca'] = df['Ca']. fillna(value=df['Ca'].mean())

df['Thal'] = df['Thal'].fillna(value=df['Thal'].mode()[0])
df['ChestPain'] LabelEncoder().fit_transform (df['Chest Pain'])

=

df['Thal'] = LabelEncoder().fit_transform(df['Thal'])
df['AHD] = LabelEncoder().fit_transform(df['AHD'])

In [33] X = df[['Age', 'Sex', 'ChestPain', 'RestBP', 'Chol', 'RestECG', 'MaxHR']]
y = df['AHD']

In [25] model = Logistic Regression (max_iter=303)

loo =

LeaveOneOut()

scores = cross_val_score (model, x, y, cv=loo)
print("Mean LOOCV Accuracy:", [URL_10]an(scores))

Mean LOOCV Accuracy: [PHONE_NUMBER_14]

In [31]: print(df)

Unnamed: 0 Age Sex

ChestPain

RestBP

Chol Fbs

RestECG

MaxHR

0 1 2 3 4

■1 63

1

3

145

233

1

2

150

2

67

1

0

160

286

0

2

108

3

4

60

67

1

0

120

229

0

■2

129

37

1

1

130

250

0

0

187

5

41

0

2

130

204

0

2

172

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298

299

45

1

3

110 264

0

0

132

299

300

68

1

0

144 193

1

0

141

300

301

57

1

0

130

■131

0

0

115

301

302 57

0

2

130

236

302

303 38

1

1

138 175

20

00

174

173

ExAng

Oldpeak Slope

Ca Thal

AHD

0123 +

0

■2.3

1

1.5

3 2

[PHONE_NUMBER_14]

0

0

2 3.[US_DRIVER_LICENSE_29]

1

1

1

2.6

2 2.[US_DRIVER_LICENSE_29]

2

1

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3.5

[PHONE_NUMBER_14]

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4

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1.4

1 0.[US_DRIVER_LICENSE_29]

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298

0

1.2

2 0.[US_DRIVER_LICENSE_29]

2

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70

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2 2.[US_DRIVER_LICENSE_29]

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2 1.[US_DRIVER_LICENSE_29]

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302

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0.0

1 [PHONE_NUMBER_14]

1

0

[303 rows x 15 columns]

In [27] from [URL_10]del_selection import KFold

In [28] kf = KFold(n_splits=10, shuffle=True, random_state=42)
model = Logistic Regression (max_iter=1000)

scores = cross_val_score (model, x, y, cv=kf)

print("Mean K-Fold Accuracy:", [URL_10]an (scores))

Mean K-Fold Accuracy: 0.[US_BANK_NUMBER_17]

In [29] from [URL_10]del_selection import Stratified KFold, cross_val_score

In [30] skf = StratifiedKFold (n_splits=10, shuffle=True, random_state=42)
model = Logistic Regression (max_iter=1000)

scores = cross_val_score (model, x, y, cv=skf)

print("Mean Stratified K-Fold Accuracy: ", [URL_10]an (scores))

Mean Stratified K-Fold Accuracy: 0.[US_BANK_NUMBER_17]

In [ ]:

In [ ]:

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