In [9]:

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# وارد کردن کتابخانه ها

import numpy
import pandas
from keras.models import Sequential
from keras.layers import Dense
from keras.wrappers.scikit_learn import KerasClassifier
from sklearn.model_selection import cross_val_score
from sklearn.preprocessing import LabelEncoder
from sklearn.model_selection import StratifiedKFold
from sklearn.preprocessing import StandardScaler
from sklearn.pipeline import Pipeline



# بار گذاری دیتاست

dataset = pandas.read_csv("C:\\Users\\ShahinN\\Desktop\\sonar.txt", header=N

# بخش بندی دیتا

X = dataset.values[:,0:60].astype(float)
Y = dataset.values[:,60]

#کمی کردن مقادیر ویژگی هدف

encoder = LabelEncoder()
encoder.fit(Y)
encoded_Y = encoder.transform(Y)

# تعریف تابع
def create_baseline():
    # create model
    model = Sequential()
    model.add(Dense(60, input_dim=60,  kernel_initializer= 'normal' , activa
    model.add(Dense(30,  kernel_initializer= 'normal' , activation= 'relu' )
    model.add(Dense(1,  kernel_initializer= 'normal' , activation= 'sigmoid'

    # Compile model
    model.compile(loss= 'binary_crossentropy' , optimizer= 'adam' , metrics=
    return model

# ارزیابی مدل با دیتای استاندارد شده

estimators = []
estimators.append(('standardize' , StandardScaler()))
estimators.append(( 'mlp' , KerasClassifier(build_fn=create_baseline, epochs
                    batch_size=5, verbose=0)))
pipeline = Pipeline(estimators)


kfold = StratifiedKFold(n_splits=10, shuffle=True, random_state=0)
results = cross_val_score(pipeline, X, encoded_Y, cv=kfold)
print("Standardized: %.2f%% (%.2f%%)" % (results.mean()*100, results.std()*1
```

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Standardized: 74.97% (9.97%)
```

In [ ]:
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1
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