

In []:

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import pandas as pd
df = pd.read_csv("Z:/15z338/dalab/movie_metadata.csv")
# the data is preprocessed
from sklearn.preprocessing import StandardScaler
scaler = StandardScaler()
df=df[['num_critic_for_reviews','director_facebook_likes','actor_1_facebook_likes','movie_facebook_likes','num_user_for_reviews','imdb_score']]
df=df.dropna()
df = df[df.movie_facebook_likes != 0]
df = df[df.director_facebook_likes != 0.0]
df = df[df.num_user_for_reviews != 0.0]
df = df[df.num_critic_for_reviews != 0.0]
df = df[df.actor_1_facebook_likes != 0.0]
df = df[df.imdb_score != 0.0]

#the preprocessed data is split into data and class labels
s=df[['num_critic_for_reviews','director_facebook_likes','actor_1_facebook_likes','movie_facebook_likes','num_user_for_reviews']]
p=df[['imdb_score']]
p=p.round()

#the data is split in such a way that the testset size is about 20 percent
from sklearn.model_selection import train_test_split
s_trainset,s_testset,p_trainset,p_testset=train_test_split(s,p,testset_size=0.20)
from sklearn.neural_network import MLPClassifier
mlp = MLPClassifier(hidden_layer_sizes=(5, 4, 3), max_iter=1000, alpha=0.00001,beta_1=0.9,beta2=0.9999, batch_size='auto',learning_rate_init=0.001,power_t=0.5,shuffle=True,random_state=None,solver='sgd', verbose=10 )
mlp.fit(s_trainset, p_trainset.values.ravel())
scaler.fit(s_trainset)
get_params(deep=True)

y_prediction = mlp.predict(s_testset)
acc(p_testset,p_prediction)
```