In [3]:
```
import numpy as np
import pandas as pd
df = pd.read_csv("C:/Users/HP/Desktop/studies/SEMESTER-7/DA/lab_dataset/movie_met
print(df.shape)
df.head()
```

```
(5043, 28)
```

Out[3]:

	color	director_name	num_critic_for_reviews	duration	director_facebook_likes	actor_3_facebook
0	Color	James Cameron	723.0	178.0	0.0	
1	Color	Gore Verbinski	302.0	169.0	563.0	
2	Color	Sam Mendes	602.0	148.0	0.0	
3	Color	Christopher Nolan	813.0	164.0	22000.0	2
4	NaN	Doug Walker	NaN	NaN	131.0	

5 rows × 28 columns

In [4]:
```
df = df[['num_critic_for_reviews','director_facebook_likes','actor_1_facebook_lik
print(df.shape)
df.head()
```

```
(5043, 7)
```

Out[4]:

	num_critic_for_reviews	director_facebook_likes	actor_1_facebook_likes	actor_2_facebook_likes	a
0	723.0	0.0	1000.0	936.0	
1	302.0	563.0	40000.0	5000.0	
2	602.0	0.0	11000.0	393.0	
3	813.0	22000.0	27000.0	23000.0	
4	NaN	131.0	131.0	12.0	

In [5]:
```
df.isnull().sum()
```

Out[5]:
```
num_critic_for_reviews      50
director_facebook_likes    104
actor_1_facebook_likes       7
actor_2_facebook_likes      13
actor_3_facebook_likes      23
movie_facebook_likes         0
imdb_score                   0
dtype: int64
```

In [6]:
```
for i in df.columns:
    if df[i].isnull().sum()>0:
        df[i] = df[i].fillna(df[i].mean())
df.isnull().sum()
```

Out[6]:
```
num_critic_for_reviews     0
director_facebook_likes    0
actor_1_facebook_likes     0
actor_2_facebook_likes     0
actor_3_facebook_likes     0
movie_facebook_likes       0
imdb_score                 0
dtype: int64
```

In [8]:
```
from sklearn.neural_network import MLPClassifier
Y = df['imdb_score'].round().values
X = df.drop(['imdb_score'],axis=1).values
clf = MLPClassifier(hidden_layer_sizes=(5), solver='sgd', activation="logistic")
```

In [9]:
```
from sklearn.model_selection import KFold
kf = KFold(n_splits=10)
for train_indices, test_indices in kf.split(X):
    clf.fit(X[train_indices], Y[train_indices])
    print(clf.score(X[test_indices], Y[test_indices]))
```

```
0.3445544554455445
0.3782178217821782
0.39801980198019804
0.36904761904761907
0.37896825396825395
0.31547619047619047
0.3551587301587302
0.30952380952380953
0.31746031746031744
0.3611111111111111
```

In [ ]:
```

```

In [ ]: