Classification Report 2022-07-03-17-49-50

## ========== Initializing fit\_ensemble\_voting\_classifier ==========

## Model : LogisticRegression

Initializing builMultiLabelModels

Accuracy\_score: 70.39 %

Loss: 29.61 %

Hamming\_loss: 7.93 %

Classification\_report: precision recall f1-score support  
  
 0 0.76 0.59 0.67 824  
 1 0.45 0.15 0.22 475  
 2 0.90 0.89 0.89 320  
 3 1.00 0.93 0.96 73  
 4 0.87 0.91 0.89 540  
  
 micro avg 0.80 0.63 0.71 2232  
 macro avg 0.80 0.69 0.73 2232  
weighted avg 0.75 0.63 0.67 2232  
 samples avg 0.29 0.27 0.27 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_LogisticRegression.pkl

Model data: {'Accuracy': 70.39, 'Loss': 29.61, 'Hamming\_loss': 7.93, 'Model\_name': 'LogisticRegression', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_LogisticRegression.pkl'}

## Model : KNeighborsClassifier

Initializing builMultiLabelModels

Accuracy\_score: 88.1 %

Loss: 11.9 %

Hamming\_loss: 2.99 %

Classification\_report: precision recall f1-score support  
  
 0 0.89 0.79 0.84 824  
 1 0.88 0.89 0.89 475  
 2 0.96 0.98 0.97 320  
 3 0.98 0.75 0.85 73  
 4 0.94 0.98 0.96 540  
  
 micro avg 0.91 0.88 0.90 2232  
 macro avg 0.93 0.88 0.90 2232  
weighted avg 0.91 0.88 0.90 2232  
 samples avg 0.37 0.37 0.37 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_KNeighborsClassifier.pkl

Model data: {'Accuracy': 88.1, 'Loss': 11.9, 'Hamming\_loss': 2.99, 'Model\_name': 'KNeighborsClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_KNeighborsClassifier.pkl'}

## Model : GaussianNB

Initializing builMultiLabelModels

Accuracy\_score: 62.51 %

Loss: 37.49 %

Hamming\_loss: 14.35 %

Classification\_report: precision recall f1-score support  
  
 0 0.53 0.67 0.59 824  
 1 0.44 0.82 0.57 475  
 2 0.53 0.99 0.70 320  
 3 0.24 0.97 0.38 73  
 4 0.68 0.97 0.80 540  
  
 micro avg 0.52 0.83 0.64 2232  
 macro avg 0.48 0.89 0.61 2232  
weighted avg 0.54 0.83 0.65 2232  
 samples avg 0.21 0.33 0.24 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_GaussianNB.pkl

Model data: {'Accuracy': 62.51, 'Loss': 37.49, 'Hamming\_loss': 14.35, 'Model\_name': 'GaussianNB', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_GaussianNB.pkl'}

## Model : SVC

Initializing builMultiLabelModels

Accuracy\_score: 97.33 %

Loss: 2.67 %

Hamming\_loss: 0.55 %

Classification\_report: precision recall f1-score support  
  
 0 0.99 0.94 0.97 824  
 1 0.99 0.97 0.98 475  
 2 1.00 1.00 1.00 320  
 3 1.00 0.89 0.94 73  
 4 1.00 1.00 1.00 540  
  
 micro avg 1.00 0.97 0.98 2232  
 macro avg 1.00 0.96 0.98 2232  
weighted avg 1.00 0.97 0.98 2232  
 samples avg 0.41 0.41 0.41 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_SVC.pkl

Model data: {'Accuracy': 97.33, 'Loss': 2.67, 'Hamming\_loss': 0.55, 'Model\_name': 'SVC', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_SVC.pkl'}

## Model : DecisionTreeClassifier

Initializing builMultiLabelModels

Accuracy\_score: 100.0 %

Loss: 0.0 %

Hamming\_loss: 0.0 %

Classification\_report: precision recall f1-score support  
  
 0 1.00 1.00 1.00 824  
 1 1.00 1.00 1.00 475  
 2 1.00 1.00 1.00 320  
 3 1.00 1.00 1.00 73  
 4 1.00 1.00 1.00 540  
  
 micro avg 1.00 1.00 1.00 2232  
 macro avg 1.00 1.00 1.00 2232  
weighted avg 1.00 1.00 1.00 2232  
 samples avg 0.43 0.43 0.43 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_DecisionTreeClassifier.pkl

Model data: {'Accuracy': 100.0, 'Loss': 0.0, 'Hamming\_loss': 0.0, 'Model\_name': 'DecisionTreeClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_DecisionTreeClassifier.pkl'}

## Model : RandomForestClassifier

Initializing builMultiLabelModels

Accuracy\_score: 100.0 %

Loss: 0.0 %

Hamming\_loss: 0.0 %

Classification\_report: precision recall f1-score support  
  
 0 1.00 1.00 1.00 824  
 1 1.00 1.00 1.00 475  
 2 1.00 1.00 1.00 320  
 3 1.00 1.00 1.00 73  
 4 1.00 1.00 1.00 540  
  
 micro avg 1.00 1.00 1.00 2232  
 macro avg 1.00 1.00 1.00 2232  
weighted avg 1.00 1.00 1.00 2232  
 samples avg 0.43 0.43 0.43 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_RandomForestClassifier.pkl

Model data: {'Accuracy': 100.0, 'Loss': 0.0, 'Hamming\_loss': 0.0, 'Model\_name': 'RandomForestClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_RandomForestClassifier.pkl'}

## Model : GradientBoostingClassifier

Initializing builMultiLabelModels

Accuracy\_score: 98.04 %

Loss: 1.96 %

Hamming\_loss: 0.44 %

Classification\_report: precision recall f1-score support  
  
 0 0.98 0.98 0.98 824  
 1 0.95 0.98 0.96 475  
 2 1.00 1.00 1.00 320  
 3 1.00 1.00 1.00 73  
 4 1.00 1.00 1.00 540  
  
 micro avg 0.98 0.99 0.99 2232  
 macro avg 0.99 0.99 0.99 2232  
weighted avg 0.98 0.99 0.99 2232  
 samples avg 0.42 0.42 0.42 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_GradientBoostingClassifier.pkl

Model data: {'Accuracy': 98.04, 'Loss': 1.96, 'Hamming\_loss': 0.44, 'Model\_name': 'GradientBoostingClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_GradientBoostingClassifier.pkl'}

## Model : AdaBoostClassifier

Initializing builMultiLabelModels

Accuracy\_score: 97.03 %

Loss: 2.97 %

Hamming\_loss: 0.68 %

Classification\_report: precision recall f1-score support  
  
 0 0.98 0.96 0.97 824  
 1 0.94 0.96 0.95 475  
 2 1.00 1.00 1.00 320  
 3 1.00 1.00 1.00 73  
 4 1.00 1.00 1.00 540  
  
 micro avg 0.98 0.98 0.98 2232  
 macro avg 0.98 0.98 0.98 2232  
weighted avg 0.98 0.98 0.98 2232  
 samples avg 0.41 0.41 0.41 2232

File saved: D:\test\Basic\_Python\Project POMO\data scraping\Artifact\2022-07-03-17-49-50\Models\MultiLabelModel\_AdaBoostClassifier.pkl

Model data: {'Accuracy': 97.03, 'Loss': 2.97, 'Hamming\_loss': 0.68, 'Model\_name': 'AdaBoostClassifier', 'Filename': 'D:\\test\\Basic\_Python\\Project POMO\\data scraping\\Artifact\\2022-07-03-17-49-50\\Models\\MultiLabelModel\_AdaBoostClassifier.pkl'}

## Ensemble\_Voting\_Classifier\_Result >>>

Classification Report on Training dataset :

Accuracy\_score: 99.12 %

Loss: 0.88 %

Hamming\_loss: 0.19 %