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1 C:\Users\HP\PycharmProjects\pythonProject\venv\
  Scripts\python.exe C:\Users\HP\PycharmProjects\
  pythonProject\main.py
2 2024-04-22 18:40:03.772998: I tensorflow/core/util/
  port.cc:113] oneDNN custom operations are on. You may
  see slightly different numerical results due to
  floating-point round-off errors from different
  computation orders. To turn them off, set the
  environment variable `TF_ENABLE_ONEDNN_OPTS=0`.
3 2024-04-22 18:40:07.457613: I tensorflow/core/util/
  port.cc:113] oneDNN custom operations are on. You may
  see slightly different numerical results due to
  floating-point round-off errors from different
  computation orders. To turn them off, set the
  environment variable `TF_ENABLE_ONEDNN_OPTS=0`.
4 Logistic Regression Accuracy: 0.375
5 Logistic Regression Classification Report:
6           precision    recall  f1-score   support
7
8      0           0.20      0.50      0.29         2
9      1           0.67      0.33      0.44         6
10
11     accuracy                0.38         8
12    macro avg           0.43      0.42      0.37         8
13 weighted avg           0.55      0.38      0.40         8
14
15 Decision Tree Accuracy: 0.625
16 Decision Tree Classification Report:
17           precision    recall  f1-score   support
18
19      0           0.00      0.00      0.00         2
20      1           0.71      0.83      0.77         6
21
22     accuracy                0.62         8
23    macro avg           0.36      0.42      0.38         8
24 weighted avg           0.54      0.62      0.58         8
25
26 Gradient Boosting Accuracy: 0.5
27 Gradient Boosting Classification Report:
28           precision    recall  f1-score   support
29

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30	0	0.00	0.00	0.00	2
31	1	0.67	0.67	0.67	6
32					
33	accuracy			0.50	8
34	macro avg	0.33	0.33	0.33	8
35	weighted avg	0.50	0.50	0.50	8
36					
37	Random Forest Accuracy: 0.75				
38	Random Forest Classification Report:				
39		precision	recall	f1-score	support
40					
41	0	0.00	0.00	0.00	2
42	1	0.75	1.00	0.86	6
43					
44	accuracy			0.75	8
45	macro avg	0.38	0.50	0.43	8
46	weighted avg	0.56	0.75	0.64	8
47					
48	Serial Execution:				
49	Logistic Regression - Accuracy: 0.3750, Elapsed Time : 3.78 seconds				
50	Classification Report:				
51		precision	recall	f1-score	support
52					
53	0	0.20	0.50	0.29	2
54	1	0.67	0.33	0.44	6
55					
56	accuracy			0.38	8
57	macro avg	0.43	0.42	0.37	8
58	weighted avg	0.55	0.38	0.40	8
59					
60					
61	Decision Tree - Accuracy: 0.6250, Elapsed Time: 5.01 seconds				
62	Classification Report:				
63		precision	recall	f1-score	support
64					
65	0	0.00	0.00	0.00	2
66	1	0.71	0.83	0.77	6
67					
68	accuracy			0.62	8

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69      macro avg      0.36      0.42      0.38
8
70 weighted avg      0.54      0.62      0.58
8
71
72
73 Gradient Boosting - Accuracy: 0.5000, Elapsed Time:
415.74 seconds
74 Classification Report:
75                precision    recall  f1-score
76      support
77          0      0.00      0.00      0.00
78          1      0.67      0.67      0.67
79          2      0.00      0.00      0.00
80      accuracy      0.50
81      macro avg      0.33      0.33      0.33
82 weighted avg      0.50      0.50      0.50
83
84
85 Random Forest - Accuracy: 0.7500, Elapsed Time: 2.32
seconds
86 Classification Report:
87                precision    recall  f1-score
88      support
89          0      0.00      0.00      0.00
90          1      0.75      1.00      0.86
91          2      0.00      0.00      0.00
92      accuracy      0.75
93      macro avg      0.38      0.50      0.43
94 weighted avg      0.56      0.75      0.64

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94 8
95
96
97 Parallel Execution:
98 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
  site-packages\sklearn\metrics\_classification.py:
  1509: UndefinedMetricWarning: Precision is ill-
  defined and being set to 0.0 in labels with no
  predicted samples. Use `zero_division` parameter to
  control this behavior.
99     _warn_prf(average, modifier, f"{metric.capitalize
  ()} is", len(result))
100 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
  site-packages\sklearn\metrics\_classification.py:
  1509: UndefinedMetricWarning: Precision is ill-
  defined and being set to 0.0 in labels with no
  predicted samples. Use `zero_division` parameter to
  control this behavior.
101     _warn_prf(average, modifier, f"{metric.capitalize
  ()} is", len(result))
102 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
  site-packages\sklearn\metrics\_classification.py:
  1509: UndefinedMetricWarning: Precision is ill-
  defined and being set to 0.0 in labels with no
  predicted samples. Use `zero_division` parameter to
  control this behavior.
103     _warn_prf(average, modifier, f"{metric.capitalize
  ()} is", len(result))
104 Logistic Regression - Accuracy: 0.3750, Elapsed Time
  : 2.34 seconds
105 Classification Report:
106           precision    recall  f1-score
107  support
108           0          0.20      0.50      0.29
109           2
109           1          0.67      0.33      0.44
110           6
110
111  accuracy          0.38
111  8

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112     macro avg      0.43      0.42      0.37
      8
113 weighted avg      0.55      0.38      0.40
      8
114
115
116 Decision Tree - Accuracy: 0.6250, Elapsed Time: 5.66
      seconds
117 Classification Report:
118           precision    recall  f1-score
      support
119
120           0          0.00      0.00      0.00
      2
121           1          0.71      0.83      0.77
      6
122
123     accuracy                    0.62
      8
124     macro avg      0.36      0.42      0.38
      8
125 weighted avg      0.54      0.62      0.58
      8
126
127
128 Gradient Boosting - Accuracy: 0.5000, Elapsed Time:
      413.25 seconds
129 Classification Report:
130           precision    recall  f1-score
      support
131
132           0          0.00      0.00      0.00
      2
133           1          0.67      0.67      0.67
      6
134
135     accuracy                    0.50
      8
136     macro avg      0.33      0.33      0.33
      8
137 weighted avg      0.50      0.50      0.50

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137 8
138
139
140 Random Forest - Accuracy: 0.7500, Elapsed Time: 2.16
    seconds
141 Classification Report:
142                precision    recall  f1-score
    support
143
144             0          0.00      0.00      0.00
    2
145             1          0.75      1.00      0.86
    6
146
147         accuracy                                0.75
    8
148         macro avg          0.38      0.50      0.43
    8
149         weighted avg          0.56      0.75      0.64
    8
150
151
152 Serial Execution:
153 LogisticRegression - Accuracy: 0.3750, Elapsed Time
    : 2.84 seconds
154 Classification Report:
155                precision    recall  f1-score
    support
156
157             0          0.20      0.50      0.29
    2
158             1          0.67      0.33      0.44
    6
159
160         accuracy                                0.38
    8
161         macro avg          0.43      0.42      0.37
    8
162         weighted avg          0.55      0.38      0.40
    8
163

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164
165 DecisionTreeClassifier - Accuracy: 0.6250, Elapsed
    Time: 4.59 seconds
166 Classification Report:
167             precision    recall  f1-score
    support
168
169           0           0.00      0.00      0.00
    2
170           1           0.71      0.83      0.77
    6
171
172     accuracy                        0.62
    8
173   macro avg           0.36      0.42      0.38
    8
174 weighted avg           0.54      0.62      0.58
    8
175
176
177 GradientBoostingClassifier - Accuracy: 0.5000,
    Elapsed Time: 400.59 seconds
178 Classification Report:
179             precision    recall  f1-score
    support
180
181           0           0.00      0.00      0.00
    2
182           1           0.67      0.67      0.67
    6
183
184     accuracy                        0.50
    8
185   macro avg           0.33      0.33      0.33
    8
186 weighted avg           0.50      0.50      0.50
    8
187
188
189 RandomForestClassifier - Accuracy: 0.7500, Elapsed
    Time: 1.91 seconds

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190 Classification Report:
191               precision    recall  f1-score
      support
192
193           0           0.00      0.00      0.00
      2
194           1           0.75      1.00      0.86
      6
195
196      accuracy                                0.75
      8
197      macro avg           0.38      0.50      0.43
      8
198      weighted avg           0.56      0.75      0.64
      8
199
200
201 Total Time (Serial): 409.93 seconds
202
203 Parallel Execution:
204 LogisticRegression - Accuracy: 0.3750, Elapsed Time
    : 3.11 seconds
205 Classification Report:
206               precision    recall  f1-score
      support
207
208           0           0.20      0.50      0.29
      2
209           1           0.67      0.33      0.44
      6
210
211      accuracy                                0.38
      8
212      macro avg           0.43      0.42      0.37
      8
213      weighted avg           0.55      0.38      0.40
      8
214
215
216 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
    site-packages\sklearn\metrics\_classification.py:

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216 1509: UndefinedMetricWarning: Precision is ill-
    defined and being set to 0.0 in labels with no
    predicted samples. Use `zero_division` parameter to
    control this behavior.
217     _warn_prf(average, modifier, f"{metric.capitalize
        ()} is", len(result))
218 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
    site-packages\sklearn\metrics\_classification.py:
    1509: UndefinedMetricWarning: Precision is ill-
    defined and being set to 0.0 in labels with no
    predicted samples. Use `zero_division` parameter to
    control this behavior.
219     _warn_prf(average, modifier, f"{metric.capitalize
        ()} is", len(result))
220 RandomForestClassifier - Accuracy: 0.7500, Elapsed
    Time: 2.99 seconds
221 Classification Report:
222             precision    recall  f1-score
    support
223
224             0          0.00      0.00      0.00
    2
225             1          0.75      1.00      0.86
    6
226
227     accuracy                                0.75
    8
228     macro avg          0.38      0.50      0.43
    8
229     weighted avg          0.56      0.75      0.64
    8
230
231
232 C:\Users\HP\PycharmProjects\pythonProject\venv\Lib\
    site-packages\sklearn\metrics\_classification.py:
    1509: UndefinedMetricWarning: Precision is ill-
    defined and being set to 0.0 in labels with no
    predicted samples. Use `zero_division` parameter to
    control this behavior.
233     _warn_prf(average, modifier, f"{metric.capitalize
        ()} is", len(result))

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234 DecisionTreeClassifier - Accuracy: 0.6250, Elapsed
    Time: 6.38 seconds
235 Classification Report:
236           precision    recall  f1-score
    support
237
238           0           0.00      0.00      0.00
    2
239           1           0.71      0.83      0.77
    6
240
241      accuracy                        0.62
    8
242      macro avg           0.36      0.42      0.38
    8
243      weighted avg           0.54      0.62      0.58
    8
244
245
246 GradientBoostingClassifier - Accuracy: 0.5000,
    Elapsed Time: 402.13 seconds
247 Classification Report:
248           precision    recall  f1-score
    support
249
250           0           0.00      0.00      0.00
    2
251           1           0.67      0.67      0.67
    6
252
253      accuracy                        0.50
    8
254      macro avg           0.33      0.33      0.33
    8
255      weighted avg           0.50      0.50      0.50
    8
256
257
258 Total Time (Parallel): 407.73 seconds
259
260 Logistic Regression - Accuracy: 0.3750, Elapsed Time

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```
260 : 3.11 seconds
261
262 Decision Tree - Accuracy: 0.6250, Elapsed Time: 6.38
    seconds
263
264 Gradient Boosting - Accuracy: 0.5000, Elapsed Time:
    402.13 seconds
265
266 Random Forest - Accuracy: 0.7500, Elapsed Time: 2.99
    seconds
267
268
269 Process finished with exit code 0
270
```