

Metadata columns: ['Feature', 'Short description', 'Can be used in the model', 'Cannot be used in the model']

Unique values in 'Can be used in the model': ['x' nan]

Allowed features (from metadata): ['game', 'season', 'home\_team', 'away\_team', 'starting\_min', 'home\_0', 'home\_1', 'home\_2', 'home\_3', 'home\_4', 'away\_0', 'away\_1', 'away\_2', 'away\_3', 'away\_4']

Loaded matchups-2007.csv with shape (27500, 53)

Loaded matchups-2008.csv with shape (26593, 53)

Loaded matchups-2009.csv with shape (26407, 53)

Combined training data shape: (80500, 53)

Using ML approach with target column: home\_4

Input features used for modeling: ['game', 'season', 'home\_team', 'away\_team', 'starting\_min', 'home\_0', 'home\_1', 'home\_2', 'home\_3', 'away\_0', 'away\_1', 'away\_2', 'away\_3', 'away\_4']

Training data preprocessing complete.

Shape of X\_train\_full: (80500, 14)

Training split shape: (64400, 14) Validation split shape: (16100, 14)

RandomForest model training complete.

Validation Accuracy: 83.16%

Classification Report (Validation):

	precision	recall	f1-score	support
0	0.00	0.00	0.00	0
2	0.80	1.00	0.89	12
3	0.00	0.00	0.00	1
5	0.00	0.00	0.00	1
6	0.66	0.97	0.79	38
7	0.33	0.50	0.40	2
10	1.00	1.00	1.00	1
11	0.75	0.50	0.60	6
12	0.00	0.00	0.00	1
13	0.00	0.00	0.00	1
14	0.00	0.00	0.00	1
17	0.00	0.00	0.00	1
18	0.00	0.00	0.00	1
19	0.67	1.00	0.80	2
21	1.00	1.00	1.00	1
22	1.00	0.67	0.80	3
23	0.75	0.33	0.46	9
24	0.00	0.00	0.00	1
25	1.00	1.00	1.00	1
26	1.00	1.00	1.00	4
28	1.00	0.40	0.57	5
29	0.83	0.94	0.88	87
30	1.00	1.00	1.00	1
31	1.00	0.50	0.67	2
33	0.00	0.00	0.00	2

34	0.00	0.00	0.00	1
37	1.00	1.00	1.00	1
38	1.00	0.67	0.80	3
39	1.00	0.50	0.67	2
40	0.00	0.00	0.00	2
41	1.00	1.00	1.00	1
42	0.50	0.50	0.50	6
44	0.00	0.00	0.00	2
45	0.00	0.00	0.00	4
47	0.70	1.00	0.82	7
49	0.00	0.00	0.00	1
51	0.46	0.60	0.52	10
52	0.00	0.00	0.00	4
54	0.00	0.00	0.00	1
57	1.00	0.33	0.50	6
58	0.85	0.81	0.83	64
59	1.00	0.78	0.88	9
60	1.00	0.50	0.67	12
61	0.59	0.53	0.56	19
63	0.62	0.50	0.56	10
64	0.75	0.88	0.81	98
65	1.00	0.25	0.40	4
66	0.86	0.80	0.83	15
67	0.90	0.50	0.64	18
68	0.00	0.00	0.00	0
69	0.33	0.67	0.44	3
70	0.75	0.75	0.75	4
71	0.81	0.46	0.59	65
72	0.00	0.00	0.00	3
74	0.33	0.14	0.20	7
75	0.00	0.00	0.00	2
76	0.00	0.00	0.00	1
77	0.64	1.00	0.78	7
78	0.00	0.00	0.00	2
79	0.50	0.29	0.36	7
80	0.67	1.00	0.80	2
81	0.82	0.83	0.82	99
82	0.00	0.00	0.00	1
83	0.82	0.93	0.87	272
84	0.00	0.00	0.00	0
85	0.74	0.74	0.74	19
86	1.00	0.50	0.67	6
88	0.72	0.70	0.71	30
89	0.00	0.00	0.00	2
90	0.00	0.00	0.00	0
92	0.83	0.45	0.59	11
93	0.00	0.00	0.00	0

94	0.00	0.00	0.00	0
95	0.58	0.58	0.58	19
96	0.71	0.81	0.76	21
97	0.00	0.00	0.00	1
98	0.00	0.00	0.00	0
99	0.67	0.54	0.60	26
100	0.68	0.65	0.67	23
101	0.81	0.57	0.67	30
102	0.00	0.00	0.00	2
103	0.58	0.50	0.54	38
104	0.47	0.47	0.47	17
106	0.94	0.65	0.77	49
107	0.50	0.35	0.41	17
109	0.50	0.20	0.29	5
110	0.93	0.72	0.81	18
111	1.00	0.40	0.57	5
112	0.67	0.57	0.62	7
113	1.00	0.80	0.89	5
114	0.71	0.33	0.45	15
115	1.00	1.00	1.00	3
116	0.81	0.97	0.88	112
117	0.83	0.83	0.83	12
118	0.00	0.00	0.00	0
119	0.79	0.73	0.76	81
120	0.60	0.38	0.46	8
121	0.50	0.25	0.33	8
122	0.00	0.00	0.00	1
123	0.80	0.67	0.73	6
124	0.50	0.20	0.29	5
127	1.00	0.67	0.80	3
128	0.73	0.59	0.65	27
129	0.79	0.77	0.78	30
130	0.81	0.88	0.84	140
131	0.00	0.00	0.00	1
132	0.50	0.25	0.33	4
133	0.00	0.00	0.00	1
134	0.67	0.28	0.39	29
135	1.00	1.00	1.00	1
136	0.88	0.54	0.67	13
137	0.83	0.62	0.71	8
138	0.50	1.00	0.67	1
139	0.80	0.57	0.67	7
140	0.60	0.50	0.55	12
141	0.84	0.90	0.87	130
142	1.00	0.25	0.40	4
143	0.82	0.82	0.82	11
144	0.70	0.70	0.70	10

145	1.00	0.25	0.40	4
146	0.50	0.29	0.36	7
148	0.50	0.33	0.40	3
149	0.90	0.50	0.64	18
150	1.00	1.00	1.00	1
151	0.75	0.38	0.50	8
152	0.67	0.84	0.75	45
153	0.83	0.62	0.71	24
154	0.76	0.62	0.68	26
155	0.62	0.56	0.59	32
156	0.75	0.60	0.67	20
157	1.00	0.70	0.82	10
158	0.74	0.41	0.53	49
159	0.77	0.85	0.81	86
160	0.33	0.12	0.18	8
161	0.78	0.89	0.83	35
162	0.68	0.78	0.73	36
163	0.78	0.78	0.78	23
164	0.71	0.77	0.74	31
165	0.53	0.50	0.51	20
166	0.67	0.50	0.57	16
167	0.00	0.00	0.00	8
168	0.69	0.47	0.56	19
169	0.80	0.94	0.87	113
170	0.62	0.71	0.67	7
171	0.71	0.80	0.75	59
172	0.00	0.00	0.00	1
173	0.00	0.00	0.00	1
174	0.80	0.75	0.77	48
175	0.83	0.61	0.70	33
176	0.50	0.50	0.50	6
177	1.00	0.86	0.92	7
178	1.00	0.50	0.67	4
179	0.77	0.77	0.77	107
180	0.00	0.00	0.00	0
181	0.72	0.79	0.75	97
182	0.79	0.84	0.82	116
183	1.00	0.25	0.40	4
184	0.82	0.80	0.81	45
185	0.00	0.00	0.00	4
186	0.70	0.33	0.45	21
187	0.72	0.62	0.67	21
188	0.62	0.89	0.73	9
189	0.83	0.86	0.84	120
190	0.69	0.73	0.71	93
191	1.00	0.67	0.80	3
192	0.82	0.82	0.82	105

193	0.50	1.00	0.67	3
194	0.56	0.64	0.60	14
195	1.00	0.60	0.75	10
196	0.67	0.67	0.67	3
197	0.00	0.00	0.00	6
198	0.67	0.72	0.69	39
201	0.67	0.80	0.73	5
202	0.40	0.40	0.40	5
203	1.00	0.33	0.50	9
204	0.89	0.81	0.85	73
205	0.43	0.43	0.43	7
206	0.85	0.86	0.86	142
207	0.75	0.50	0.60	12
208	0.73	0.73	0.73	30
209	1.00	0.67	0.80	6
210	0.67	0.29	0.40	7
211	0.75	0.67	0.71	49
212	0.85	0.64	0.73	36
213	0.82	0.50	0.62	72
214	0.50	0.33	0.40	3
215	0.80	0.57	0.67	7
216	0.86	0.63	0.73	19
217	0.63	0.75	0.69	44
218	0.79	0.61	0.69	36
219	0.70	0.79	0.74	29
220	1.00	0.67	0.80	3
221	0.67	0.29	0.40	14
223	0.68	0.75	0.71	64
224	0.81	0.92	0.86	276
225	0.60	0.43	0.50	7
226	0.75	0.81	0.78	62
227	0.79	0.88	0.84	104
228	0.73	0.57	0.64	14
229	0.87	0.87	0.87	247
230	0.86	0.95	0.90	282
231	0.72	0.68	0.70	34
232	0.78	0.49	0.60	65
233	0.65	0.84	0.73	31
234	0.88	0.85	0.87	172
235	1.00	1.00	1.00	4
236	0.76	0.80	0.78	93
237	1.00	0.36	0.53	11
238	0.67	0.40	0.50	5
239	0.70	0.55	0.62	29
240	0.20	0.33	0.25	3
241	1.00	0.73	0.84	11
242	0.73	0.59	0.65	41

243	0.79	0.86	0.82	43
244	0.78	0.84	0.81	152
245	1.00	1.00	1.00	1
246	0.70	0.72	0.71	43
248	0.86	0.55	0.67	76
249	0.86	0.95	0.90	200
250	0.93	0.76	0.84	93
251	0.84	0.78	0.81	60
252	0.00	0.00	0.00	7
253	0.72	0.65	0.68	65
254	0.88	0.87	0.88	105
255	0.00	0.00	0.00	4
256	0.82	0.93	0.87	313
257	0.92	0.94	0.93	86
258	0.38	0.50	0.43	10
259	0.91	0.62	0.74	16
260	0.82	0.90	0.86	135
261	0.90	0.78	0.84	49
262	0.75	0.25	0.38	12
263	0.79	0.79	0.79	38
264	0.70	0.76	0.73	85
265	0.90	0.63	0.75	30
266	0.81	0.69	0.74	67
267	0.73	0.74	0.74	66
268	1.00	0.33	0.50	9
270	0.85	0.68	0.76	50
271	0.75	0.78	0.77	46
272	0.00	0.00	0.00	6
273	0.90	0.64	0.75	28
274	0.89	0.92	0.91	208
275	1.00	0.84	0.91	25
276	0.80	0.62	0.70	13
277	0.68	0.67	0.67	51
278	0.85	0.71	0.77	41
279	0.84	0.77	0.80	66
280	0.95	0.97	0.96	90
281	0.78	0.66	0.71	38
282	0.33	0.33	0.33	3
283	0.86	0.87	0.87	125
284	0.84	0.59	0.69	61
285	0.74	0.70	0.72	56
286	0.90	0.94	0.92	93
287	0.74	0.57	0.64	49
288	1.00	0.50	0.67	2
289	0.78	0.58	0.67	12
290	0.86	0.88	0.87	163
291	1.00	1.00	1.00	1

292	0.95	0.95	0.95	19
293	0.57	0.80	0.67	5
294	0.86	0.95	0.90	305
295	0.76	0.86	0.80	115
296	0.88	0.90	0.89	174
297	0.85	0.93	0.89	55
298	0.95	0.98	0.96	341
299	0.77	0.77	0.77	56
301	0.63	0.61	0.62	31
302	0.00	0.00	0.00	2
303	0.82	0.72	0.77	71
305	0.85	0.88	0.86	222
306	0.87	0.81	0.84	42
307	0.90	0.96	0.93	297
308	0.76	0.74	0.75	101
309	0.78	0.87	0.82	115
310	0.86	0.63	0.73	38
311	1.00	1.00	1.00	3
312	0.79	0.79	0.79	95
313	0.86	0.89	0.87	217
314	0.75	0.85	0.80	136
315	0.85	0.76	0.80	111
316	0.96	0.96	0.96	299
317	0.82	0.82	0.82	125
318	0.76	0.75	0.76	60
319	0.92	0.93	0.92	298
320	0.90	0.78	0.83	139
321	0.81	0.89	0.85	200
322	0.92	0.83	0.87	29
323	0.89	0.91	0.90	286
324	0.82	0.76	0.79	97
325	0.81	0.87	0.84	221
326	0.91	0.98	0.94	262
327	0.88	0.92	0.90	258
328	0.00	0.00	0.00	1
329	1.00	0.69	0.82	13
330	1.00	0.55	0.71	11
331	0.84	0.95	0.89	361
333	0.85	0.85	0.85	144
334	0.89	0.82	0.86	40
335	0.90	0.88	0.89	180
336	0.92	0.84	0.88	82
337	1.00	1.00	1.00	4
338	1.00	0.83	0.91	6
339	1.00	0.86	0.93	37
340	1.00	0.60	0.75	5
341	0.80	0.62	0.70	32

342	0.89	0.89	0.89	246
343	0.86	0.92	0.89	141
344	0.89	0.91	0.90	123
345	0.95	0.98	0.96	252
346	0.00	0.00	0.00	1
347	0.95	0.88	0.92	117
348	0.90	0.95	0.92	258
349	0.84	0.92	0.88	210
350	0.91	0.95	0.93	235
accuracy				0.83 16100
macro avg				0.67 0.60 0.62 16100
weighted avg				0.83 0.83 0.83 16100

Test data shape: (1000, 14)

Test labels shape: (1000, 1)

```
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
Test data preprocessing complete. Shape of X_test: (1000, 14)
```



Predictions saved to 'NBA\_predictions.csv'. Preview:

```
Fifth_Player
0      Troy Murphy
1      Tracy McGrady
2      Tim Duncan
3      Sebastian Telfair
4      Stromile Swift
```

Test Accuracy (matching removed player): 9.10%

Classification Report (Test):

	precision	recall	f1-score	support
-1	0.00	0.00	0.00	518
0	0.00	0.00	0.00	2
1	0.00	0.00	0.00	2
2	0.00	0.00	0.00	0
3	0.00	0.00	0.00	0
6	0.09	0.33	0.14	3
8	0.00	0.00	0.00	1
9	0.00	0.00	0.00	1
10	0.00	0.00	0.00	4
11	0.00	0.00	0.00	2
14	0.00	0.00	0.00	4
16	0.00	0.00	0.00	4
19	0.00	0.00	0.00	2
20	0.00	0.00	0.00	6
21	0.00	0.00	0.00	1
22	0.00	0.00	0.00	1
23	0.00	0.00	0.00	1
24	0.00	0.00	0.00	1
25	0.00	0.00	0.00	4
26	0.00	0.00	0.00	0
29	0.33	0.50	0.40	2
30	0.00	0.00	0.00	2
31	0.00	0.00	0.00	1
33	0.00	0.00	0.00	2
37	0.00	0.00	0.00	2
39	0.00	0.00	0.00	2
40	0.00	0.00	0.00	2
41	0.00	0.00	0.00	7
42	0.00	0.00	0.00	3
44	0.00	0.00	0.00	1
45	0.00	0.00	0.00	3
47	0.00	0.00	0.00	1
49	0.00	0.00	0.00	1
52	0.00	0.00	0.00	1
54	0.00	0.00	0.00	2
55	0.00	0.00	0.00	4

56	0.00	0.00	0.00	3
58	0.00	0.00	0.00	0
59	0.00	0.00	0.00	1
60	0.00	0.00	0.00	2
61	0.00	0.00	0.00	3
62	0.00	0.00	0.00	3
63	0.00	0.00	0.00	1
64	0.00	0.00	0.00	2
66	0.00	0.00	0.00	2
68	0.00	0.00	0.00	6
71	0.00	0.00	0.00	1
72	0.00	0.00	0.00	3
75	0.00	0.00	0.00	4
79	0.00	0.00	0.00	2
80	0.00	0.00	0.00	1
81	0.00	0.00	0.00	0
83	0.10	1.00	0.17	2
84	0.00	0.00	0.00	2
85	0.00	0.00	0.00	1
86	0.00	0.00	0.00	11
87	0.00	0.00	0.00	1
88	0.00	0.00	0.00	1
92	0.00	0.00	0.00	1
94	0.00	0.00	0.00	1
95	0.00	0.00	0.00	3
96	0.00	0.00	0.00	1
97	0.00	0.00	0.00	2
99	0.50	0.33	0.40	3
100	0.00	0.00	0.00	6
101	0.00	0.00	0.00	4
103	0.00	0.00	0.00	0
104	0.00	0.00	0.00	3
105	0.00	0.00	0.00	4
106	0.00	0.00	0.00	0
107	0.00	0.00	0.00	1
108	0.00	0.00	0.00	2
109	0.00	0.00	0.00	3
110	0.00	0.00	0.00	3
111	0.00	0.00	0.00	0
112	0.00	0.00	0.00	5
113	0.00	0.00	0.00	1
116	0.00	0.00	0.00	3
117	0.00	0.00	0.00	2
119	0.10	0.50	0.17	2
120	0.00	0.00	0.00	1
122	0.00	0.00	0.00	1
123	0.00	0.00	0.00	1

124	0.00	0.00	0.00	1
125	0.00	0.00	0.00	2
128	0.00	0.00	0.00	2
129	0.00	0.00	0.00	1
130	0.31	0.67	0.42	6
131	0.00	0.00	0.00	1
134	0.00	0.00	0.00	0
136	0.00	0.00	0.00	2
138	0.00	0.00	0.00	6
139	0.00	0.00	0.00	2
141	0.00	0.00	0.00	3
144	0.00	0.00	0.00	0
146	0.00	0.00	0.00	1
147	0.00	0.00	0.00	1
148	0.00	0.00	0.00	1
151	0.00	0.00	0.00	5
152	0.06	0.25	0.10	4
153	0.00	0.00	0.00	5
154	0.00	0.00	0.00	3
155	0.00	0.00	0.00	0
156	0.00	0.00	0.00	3
158	0.00	0.00	0.00	3
159	0.00	0.00	0.00	0
161	0.11	0.50	0.18	2
162	0.00	0.00	0.00	0
163	1.00	0.50	0.67	2
164	0.50	1.00	0.67	1
165	0.00	0.00	0.00	2
168	0.00	0.00	0.00	3
169	0.14	0.33	0.20	3
170	0.00	0.00	0.00	3
171	0.11	0.25	0.15	4
174	0.00	0.00	0.00	0
175	0.67	0.67	0.67	3
176	0.00	0.00	0.00	1
177	0.00	0.00	0.00	0
179	0.67	1.00	0.80	2
181	0.00	0.00	0.00	1
182	0.25	0.17	0.20	6
186	0.00	0.00	0.00	2
187	0.00	0.00	0.00	2
189	0.50	0.45	0.48	11
190	0.50	0.33	0.40	3
192	0.00	0.00	0.00	1
193	0.00	0.00	0.00	1
194	0.00	0.00	0.00	3
195	1.00	0.50	0.67	2

198	1.00	0.50	0.67	2
199	0.00	0.00	0.00	2
204	0.00	0.00	0.00	4
206	0.18	0.40	0.25	5
207	0.00	0.00	0.00	4
211	0.12	1.00	0.22	1
213	0.17	1.00	0.29	1
216	0.00	0.00	0.00	0
217	1.00	0.50	0.67	2
218	0.00	0.00	0.00	2
219	0.00	0.00	0.00	1
221	0.00	0.00	0.00	4
223	0.20	0.50	0.29	2
224	0.03	0.50	0.05	2
225	0.00	0.00	0.00	1
226	0.50	0.50	0.50	2
227	0.00	0.00	0.00	1
229	0.25	1.00	0.40	2
230	0.00	0.00	0.00	3
231	0.00	0.00	0.00	1
232	0.00	0.00	0.00	1
233	0.00	0.00	0.00	3
234	0.00	0.00	0.00	2
235	0.00	0.00	0.00	0
236	0.08	0.33	0.12	3
242	0.00	0.00	0.00	1
243	0.00	0.00	0.00	5
244	0.00	0.00	0.00	2
246	1.00	1.00	1.00	1
248	0.00	0.00	0.00	2
249	0.14	1.00	0.25	1
250	0.50	0.50	0.50	2
251	0.00	0.00	0.00	3
252	0.00	0.00	0.00	3
253	0.33	1.00	0.50	1
254	0.00	0.00	0.00	0
256	0.30	1.00	0.46	3
257	0.20	0.67	0.31	3
258	0.00	0.00	0.00	2
260	0.00	0.00	0.00	0
263	0.00	0.00	0.00	1
264	0.00	0.00	0.00	3
266	0.00	0.00	0.00	1
267	0.00	0.00	0.00	0
272	0.00	0.00	0.00	0
274	0.00	0.00	0.00	1
275	0.00	0.00	0.00	2

276	1.00	1.00	1.00	1
277	0.00	0.00	0.00	2
278	0.00	0.00	0.00	1
279	0.04	0.33	0.08	3
280	0.00	0.00	0.00	0
281	0.00	0.00	0.00	1
283	0.00	0.00	0.00	2
284	0.00	0.00	0.00	1
286	1.00	1.00	1.00	1
287	0.00	0.00	0.00	0
288	0.00	0.00	0.00	2
290	0.00	0.00	0.00	2
292	0.00	0.00	0.00	0
294	0.05	0.50	0.10	4
295	0.50	1.00	0.67	2
296	0.50	0.60	0.55	5
297	1.00	1.00	1.00	1
298	0.18	1.00	0.30	3
299	0.10	0.33	0.15	3
301	0.00	0.00	0.00	0
303	0.50	1.00	0.67	1
305	0.00	0.00	0.00	1
307	0.00	0.00	0.00	0
308	0.11	1.00	0.20	1
309	0.03	0.25	0.05	4
310	0.00	0.00	0.00	0
312	0.00	0.00	0.00	4
313	0.02	1.00	0.04	1
314	0.12	0.20	0.15	5
315	0.00	0.00	0.00	0
316	0.33	0.86	0.48	7
317	0.33	1.00	0.50	2
318	0.00	0.00	0.00	1
319	0.29	1.00	0.44	2
320	1.00	1.00	1.00	1
321	0.00	0.00	0.00	1
323	0.17	1.00	0.29	3
325	0.03	1.00	0.05	1
326	0.00	0.00	0.00	3
327	0.09	0.33	0.14	3
331	0.00	0.00	0.00	3
333	0.00	0.00	0.00	0
334	0.00	0.00	0.00	1
335	0.00	0.00	0.00	0
339	0.00	0.00	0.00	2
341	0.00	0.00	0.00	0
342	0.06	1.00	0.11	2

343	0.08	0.17	0.11	6
344	0.17	1.00	0.29	1
345	0.00	0.00	0.00	0
347	0.00	0.00	0.00	0
348	0.00	0.00	0.00	7
349	0.00	0.00	0.00	4
350	0.20	0.67	0.31	3
accuracy			0.09	1000
macro avg	0.09	0.17	0.10	1000
weighted avg	0.05	0.09	0.06	1000

Number of test matches (cases) per year:

```
season
2007    100
2008    100
2009    100
2010    100
2011    100
2012    100
2013    100
2014    100
2015    100
2016    100
dtype: int64
```

Average number of test matches per year: 100.00

Top 10 Feature Importances:

	Feature	Importance
2	home_team	0.159078
8	home_3	0.156774
5	home_0	0.094293
7	home_2	0.094281
0	game	0.088375
6	home_1	0.085634
4	starting_min	0.063244
9	away_0	0.041001
13	away_4	0.040655
12	away_3	0.040481

--- Execution complete. ---

```
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
_warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
```

```
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
    _warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
    _warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
    _warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: 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.
```

```
    _warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
/usr/local/lib/python3.11/dist-packages/sklearn/metrics/_classification.py
:1565: UndefinedMetricWarning: Recall is ill-defined and being set to 0.0
in labels with no true samples. Use `zero_division` parameter to control
this behavior.
```

```
    _warn_prf(average, modifier, f"{metric.capitalize()} is", len(result))
```