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1 "D:\Pycharm\Pycharm Project\pythonProject\venv\Scripts
  \python.exe" "D:/Pycharm/Pycharm Project/pythonProject
  /main.py"
2 Day Start: 01/01/2021
3 Day End: 01/07/2022
4 List of Companies in VNSTOCK
5      ticker ... company_short_name
6 0      VVS ... Đầu tư Phát triển Máy Việt Nam
7 1      XDC ... Xây dựng Công trình Tân Cảng
8 2      HSV ... Gang Thép Hà Nội
9 3      CST ... Than Cao Sơn - TKV
10 4     BVL ... BV Land
11 ...   ... ...
12 1625  XMP ... Thủ điện Xuân Minh
13 1626  YBC ... Xi măng và Khoáng sản Yên Bái
14 1627  YBM ... Khoáng sản CN Yên Bái
15 1628  YEG ... Tập đoàn Yeah1
16 1629  YTC ... XNK Y tế TP.HCM
17
18 [1630 rows x 4 columns]
19 There are 1630 companies in VNSTOCK
20 3 stocks in three different sectors
21 Choose 1 company in service field, 1 company in
  construction field and 1 company in transportation
  field
22 Thông tin về công ty CP Đầu tư Hạ tầng Giao thông Đèo
  Cả với mã chứng khoáng: HHV
23 exchange           shortName ...
  companyType ticker
24 0      HOSE Đầu tư Hạ tầng Giao thông Đèo Cả
  ...           CT   HHV
25
26 [1 rows x 19 columns]
27 Thông tin về công ty CP Đại lý Vận tải SAFI với mã
  chứng khoáng: SFI
28 exchange   shortName industryID ... issueShare
  companyType ticker
29 0      HOSE Vận tải SAFI           191 ...       23.8
  ...           CT   SFI
30
31 [1 rows x 19 columns]

```

32	Thông tin về công ty cổ phần Dịch vụ Tổng hợp Dầu khí với mã chứng khoáng: PET						
33	exchange shortName industryID ... issueShare companyType ticker						
34	0	HOSE	PETROSETCO	253	...	90.5	
		CT	PET				
35							
36	[1 rows x 19 columns]						
37	Dữ liệu giao dịch chứng khoáng của công ty CP Đầu tư Hạ tầng Giao thông Đèo Cả						
38		Open	High	Low	Close	Volume	
		TradingDate					
39	0	17584.0	18535.0	17584.0	17900.0	1302	2021
		-01-04					
40	1	19961.0	20341.0	18535.0	19700.0	1800	2021
		-01-05					
41	2	21862.0	22622.0	21862.0	22600.0	7800	2021
		-01-06					
42	3	22527.0	22527.0	22527.0	22500.0	0	2021
		-01-07					
43	4	22527.0	22527.0	19200.0	21600.0	400	2021
		-01-08					
44
		...					
45	357	11501.0	11549.0	11026.0	11501.0	1115700	2022
		-06-27					
46	358	11406.0	11881.0	11406.0	11786.0	1364300	2022
		-06-28					
47	359	11691.0	11834.0	11549.0	11644.0	988900	2022
		-06-29					
48	360	11596.0	11644.0	11073.0	11073.0	1050000	2022
		-06-30					
49	361	11026.0	11168.0	10551.0	11026.0	955000	2022
		-07-01					
50							
51	[362 rows x 6 columns]						
52	Dữ liệu giao dịch chứng khoáng của CTCP Đại lý Vận tải SAFI						
53		Open	High	Low	Close	Volume	
		TradingDate					
54	0	18520.0	18840.0	18027.0	18840.0	17700	2021-

54	01-04						
55	1	18143.0	18782.0	18143.0	18288.0	5800	2021-
	01-05						
56	2	19275.0	19275.0	18056.0	18840.0	17500	2021-
	01-06						
57	3	18840.0	18869.0	18288.0	18869.0	25500	2021-
	01-07						
58	4	18694.0	18694.0	18346.0	18636.0	24900	2021-
	01-08						
59
	...						
60	366	38094.0	39364.0	38094.0	39364.0	3000	2022-
	06-27						
61	367	39364.0	39872.0	38094.0	39872.0	5100	2022-
	06-28						
62	368	38284.0	39300.0	37205.0	39300.0	900	2022-
	06-29						
63	369	39681.0	39681.0	39681.0	39681.0	100	2022-
	06-30						
64	370	39300.0	39300.0	37205.0	37205.0	2100	2022-
	07-01						
65							
66	[371 rows x 6 columns]						
67	Dữ liệu giao dịch chứng khoáng của Tổng Công ty cổ phần Dịch vụ Tổng hợp Dầu khí						
68		Open	High	Low	Close	Volume	
	TradingDate						
69	0	14095.0	14400.0	14095.0	14269.0	2014200	2021
	-01-04						
70	1	14226.0	15098.0	14051.0	14924.0	4584700	2021
	-01-05						
71	2	14924.0	15535.0	14575.0	14837.0	2616600	2021
	-01-06						
72	3	14924.0	15273.0	14837.0	15142.0	2947700	2021
	-01-07						
73	4	15273.0	15360.0	14837.0	15186.0	3374300	2021
	-01-08						
74
	...						
75	366	34228.0	35000.0	33591.0	34909.0	539600	2022
	-06-27						

76	367	34546.0	36000.0	34455.0	34455.0	791400			
		2022-06-28							
77	368	33637.0	34637.0	32819.0	34091.0	613500			
		2022-06-29							
78	369	34091.0	34682.0	32728.0	34182.0	571300			
		2022-06-30							
79	370	32546.0	33591.0	31819.0	32546.0	803700			
		2022-07-01							
80									
81		[371 rows x 6 columns]							
82		Thông tin giao dịch theo thời gian trong ngày của công ty CTCP Đầu tư Hạ tầng Giao thông Đèo Cả							
83		price	volume	cp	rcp	a	ba	sa	hl
		pcp	time						
84	0	13050.0	338100	0.0	0.0		0.0	0.0	True
		0.0	14:45:00						
85	1	13000.0	100	0.0	0.0	BU	0.0	0.0	False
		0.0	14:29:58						
86	2	13000.0	400	0.0	0.0	BU	0.0	0.0	False
		0.0	14:29:58						
87	3	13000.0	3200	0.0	0.0	BU	0.0	0.0	False
		0.0	14:29:56						
88	4	13000.0	100	0.0	0.0	BU	0.0	0.0	False
		0.0	14:29:56						
89
							
90	4211	12450.0	200	0.0	0.0	SD	0.0	0.0	False
		0.0	09:15:48						
91	4212	12450.0	1000	0.0	0.0	SD	0.0	0.0	False
		0.0	09:15:09						
92	4213	12500.0	200	0.0	0.0	BU	0.0	0.0	False
		0.0	09:15:06						
93	4214	12450.0	2000	0.0	0.0	SD	0.0	0.0	False
		0.0	09:15:04						
94	4215	12450.0	35500	0.0	0.0		0.0	0.0	True
		0.0	09:15:00						
95									
96		[4216 rows x 10 columns]							
97		Thông tin giao dịch theo thời gian trong ngày của công ty CTCP Đại lý Vận tải SAFI							
98		price	volume	cp	rcp	a	ba	sa	hl

98	pcp	time								
99	0	40600.0	3000	0.0	0.0		0.0	0.0	False	0
	.	0	14:45:02							
100	1	40400.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	13:59:11							
101	2	40200.0	100	0.0	0.0	SD	0.0	0.0	False	0
	.	0	13:49:35							
102	3	40200.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	13:47:42							
103	4	40200.0	200	0.0	0.0	SD	0.0	0.0	False	0
	.	0	13:36:52							
104	5	40200.0	200	0.0	0.0	SD	0.0	0.0	False	0
	.	0	13:21:10							
105	6	40000.0	100	0.0	0.0	SD	0.0	0.0	False	0
	.	0	13:16:38							
106	7	40500.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	13:11:05							
107	8	40500.0	200	0.0	0.0	BU	0.0	0.0	False	0
	.	0	13:00:06							
108	9	40850.0	100	0.0	0.0	SD	0.0	0.0	False	0
	.	0	10:53:23							
109	10	40850.0	200	0.0	0.0	SD	0.0	0.0	False	0
	.	0	10:52:51							
110	11	40850.0	100	0.0	0.0	SD	0.0	0.0	False	0
	.	0	10:52:45							
111	12	40850.0	200	0.0	0.0	BU	0.0	0.0	False	0
	.	0	10:51:22							
112	13	40850.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	10:50:59							
113	14	40850.0	300	0.0	0.0	BU	0.0	0.0	False	0
	.	0	10:50:22							
114	15	40900.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	10:16:33							
115	16	40950.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	10:16:33							
116	17	40900.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	09:43:29							
117	18	40950.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	09:43:29							
118	19	41000.0	100	0.0	0.0	BU	0.0	0.0	False	0
	.	0	09:32:42							

119	20	41000.0 .0	09:24:15	100	0.0	0.0	SD	0.0	0.0	False	0
120	21	41000.0 .0	09:23:55	100	0.0	0.0	BU	0.0	0.0	False	0
121	22	41000.0 .0	09:23:44	900	0.0	0.0	SD	0.0	0.0	False	0
122	23	40900.0 .0	09:22:25	100	0.0	0.0	BU	0.0	0.0	False	0
123	24	40950.0 .0	09:22:25	100	0.0	0.0	BU	0.0	0.0	False	0
124	25	40950.0 .0	09:22:25	500	0.0	0.0	BU	0.0	0.0	False	0
125	26	41000.0 .0	09:22:25	600	0.0	0.0	BU	0.0	0.0	False	0
126	27	40900.0 .0	09:20:30	300	0.0	0.0	BU	0.0	0.0	False	0
127	28	39400.0 .0	09:15:01	1300	0.0	0.0		0.0	0.0	False	0
128	Thông tin giao dịch theo thời gian trong ngày của Tổng Công ty cổ phần Dịch vụ Tổng hợp Dầu khí										
129		price pcp	volume time	cp	rcp	a	ba	sa	hl		
130	0	20800.0 0.0	22800 14:45:02	0.0	0.0			0.0	0.0	True	
131	1	20650.0 0.0	300 14:28:56	0.0	0.0	BU	0.0	0.0	False		
132	2	20650.0 0.0	200 14:28:56	0.0	0.0	BU	0.0	0.0	False		
133	3	20650.0 0.0	1000 14:28:30	0.0	0.0	BU	0.0	0.0	False		
134	4	20600.0 0.0	100 14:28:29	0.0	0.0	SD	0.0	0.0	False		
135
136	430	21100.0 0.0	09:18:33	500	0.0	0.0	SD	0.0	0.0	False	
137	431	21100.0 0.0	09:17:52	100	0.0	0.0	SD	0.0	0.0	False	
138	432	21100.0 0.0	09:17:49	100	0.0	0.0	SD	0.0	0.0	False	
139	433	21100.0		100	0.0	0.0	SD	0.0	0.0	False	

139	0.0	09:16:18						
140	434	21100.0	1400	0.0	0.0	0.0	0.0	False
		0.0	09:15:00					
141								
142	[435 rows x 10 columns]							
143	Dữ liệu của công ty với mã HHV sau khi đã sắp xếp theo thời gian							
144		Open	High	Low	Close	Volume		
		TradingDate						
145	0	17584.0	18535.0	17584.0	17900.0	1302		
		2021-01-04						
146	1	19961.0	20341.0	18535.0	19700.0	1800		
		2021-01-05						
147	2	21862.0	22622.0	21862.0	22600.0	7800		
		2021-01-06						
148	3	22527.0	22527.0	22527.0	22500.0	0		
		2021-01-07						
149	4	22527.0	22527.0	19200.0	21600.0	400		
		2021-01-08						
150	
		...						
151	357	11501.0	11549.0	11026.0	11501.0	1115700		
		2022-06-27						
152	358	11406.0	11881.0	11406.0	11786.0	1364300		
		2022-06-28						
153	359	11691.0	11834.0	11549.0	11644.0	988900		
		2022-06-29						
154	360	11596.0	11644.0	11073.0	11073.0	10500000		
		2022-06-30						
155	361	11026.0	11168.0	10551.0	11026.0	9550000		
		2022-07-01						
156								
157	[362 rows x 6 columns]							
158	Dữ liệu của công ty với mã SFI sau khi đã sắp xếp theo thời gian							
159		Open	High	Low	Close	Volume		
		TradingDate						
160	0	18520.0	18840.0	18027.0	18840.0	17700	2021	
		-01-04						
161	1	18143.0	18782.0	18143.0	18288.0	5800	2021	
		-01-05						

162	2	19275.0	19275.0	18056.0	18840.0	17500	2021
		-01-06					
163	3	18840.0	18869.0	18288.0	18869.0	25500	2021
		-01-07					
164	4	18694.0	18694.0	18346.0	18636.0	24900	2021
		-01-08					
165
		...					
166	366	38094.0	39364.0	38094.0	39364.0	3000	2022
		-06-27					
167	367	39364.0	39872.0	38094.0	39872.0	5100	2022
		-06-28					
168	368	38284.0	39300.0	37205.0	39300.0	900	2022
		-06-29					
169	369	39681.0	39681.0	39681.0	39681.0	100	2022
		-06-30					
170	370	39300.0	39300.0	37205.0	37205.0	2100	2022
		-07-01					
171							
172	[371 rows x 6 columns]						
173	Dữ liệu của công ty với mã PET sau khi đã sắp xếp theo thời gian						
174		Open	High	Low	Close	Volume	
		TradingDate					
175	0	14095.0	14400.0	14095.0	14269.0	2014200	
		2021-01-04					
176	1	14226.0	15098.0	14051.0	14924.0	4584700	
		2021-01-05					
177	2	14924.0	15535.0	14575.0	14837.0	2616600	
		2021-01-06					
178	3	14924.0	15273.0	14837.0	15142.0	2947700	
		2021-01-07					
179	4	15273.0	15360.0	14837.0	15186.0	3374300	
		2021-01-08					
180
		...					
181	366	34228.0	35000.0	33591.0	34909.0	539600	
		2022-06-27					
182	367	34546.0	36000.0	34455.0	34455.0	791400	
		2022-06-28					
183	368	33637.0	34637.0	32819.0	34091.0	613500	

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183 2022-06-29
184 369 34091.0 34682.0 32728.0 34182.0 571300
    2022-06-30
185 370 32546.0 33591.0 31819.0 32546.0 803700
    2022-07-01
186
187 [371 rows x 6 columns]
188 The number of used data for the model build process
    357
189 The number of data [days] used for training process
190 Data of HHV for X-axis training process = (249, 4, 4
    )
191 Data of HHV for Y-axis training process = (249, 4)
192 The number of data [days] used for testing process
193 Data of HHV for X-axis testing process = (108, 4, 4)
194 Data of HHV for Y-axis testing process = (108, 4)
195 The number of used data for the model build process
    366
196 The number of data [days] used for training process
197 Data of SFI for X-axis training process = (256, 4, 4
    )
198 Data of SFI for Y-axis training process = (256, 4)
199 The number of data [days] used for testing process
200 Data of SFI for X-axis testing process = (110, 4, 4)
201 Data of SFI for Y-axis testing process = (110, 4)
202 The number of used data for the model build process
    366
203 The number of data [days] used for training process
204 Data of PET for X-axis training process = (256, 4, 4
    )
205 Data of PET for Y-axis training process = (256, 4)
206 The number of data [days] used for testing process
207 Data of PET for X-axis testing process = (110, 4, 4)
208 Data of PET for Y-axis testing process = (110, 4)
209 2023-02-04 15:51:00.577244: I tensorflow/core/
    platform/cpu_feature_guard.cc:193] This TensorFlow
    binary is optimized with oneAPI Deep Neural Network
    Library (oneDNN) to use the following CPU
    instructions in performance-critical operations: AVX
210 To enable them in other operations, rebuild
    TensorFlow with the appropriate compiler flags.
```

```
211 Epoch 1/200
212 16/18 [=====>....] - ETA: 0s -
    loss: 0.1510 - accuracy: 0.2438
213 Epoch 1: val_loss improved from inf to 0.26650,
    saving model to HHV_Stock.h5
214 18/18 [=====] - 6s 73ms/step
    - loss: 0.1477 - accuracy: 0.2299 - val_loss: 0.2665
    - val_accuracy: 0.1733
215 Epoch 2/200
216 12/18 [=====>.....] - ETA: 0s -
    loss: 0.1047 - accuracy: 0.4000
217 Epoch 2: val_loss improved from 0.26650 to 0.05811,
    saving model to HHV_Stock.h5
218 18/18 [=====] - 0s 9ms/step
    - loss: 0.0868 - accuracy: 0.3966 - val_loss: 0.0581
    - val_accuracy: 0.0933
219 Epoch 3/200
220 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0139 - accuracy: 0.2111
221 Epoch 3: val_loss improved from 0.05811 to 0.03302,
    saving model to HHV_Stock.h5
222 18/18 [=====] - 0s 11ms/step
    - loss: 0.0144 - accuracy: 0.1724 - val_loss: 0.0330
    - val_accuracy: 0.4400
223 Epoch 4/200
224 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0120 - accuracy: 0.1727
225 Epoch 4: val_loss improved from 0.03302 to 0.01368,
    saving model to HHV_Stock.h5
226 18/18 [=====] - 0s 11ms/step
    - loss: 0.0110 - accuracy: 0.2184 - val_loss: 0.0137
    - val_accuracy: 0.1733
227 Epoch 5/200
228 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0087 - accuracy: 0.3100
229 Epoch 5: val_loss did not improve from 0.01368
230 18/18 [=====] - 0s 10ms/step
    - loss: 0.0089 - accuracy: 0.2931 - val_loss: 0.0156
    - val_accuracy: 0.1733
231 Epoch 6/200
232 11/18 [=====>.....] - ETA: 0s -
```

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232 loss: 0.0077 - accuracy: 0.2000
233 Epoch 6: val_loss improved from 0.01368 to 0.01015,
    saving model to HHV_Stock.h5
234 18/18 [=====] - 0s 10ms/step
    - loss: 0.0078 - accuracy: 0.2069 - val_loss: 0.0101
    - val_accuracy: 0.1600
235 Epoch 7/200
236 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0084 - accuracy: 0.2400
237 Epoch 7: val_loss did not improve from 0.01015
238 18/18 [=====] - 0s 9ms/step
    - loss: 0.0091 - accuracy: 0.2644 - val_loss: 0.0207
    - val_accuracy: 0.1733
239 Epoch 8/200
240 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0082 - accuracy: 0.2083
241 Epoch 8: val_loss did not improve from 0.01015
242 18/18 [=====] - 0s 8ms/step
    - loss: 0.0091 - accuracy: 0.1954 - val_loss: 0.0219
    - val_accuracy: 0.1733
243 Epoch 9/200
244 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0084 - accuracy: 0.2000
245 Epoch 9: val_loss improved from 0.01015 to 0.00963,
    saving model to HHV_Stock.h5
246 18/18 [=====] - 0s 11ms/step
    - loss: 0.0085 - accuracy: 0.2241 - val_loss: 0.0096
    - val_accuracy: 0.0800
247 Epoch 10/200
248 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0090 - accuracy: 0.2545
249 Epoch 10: val_loss did not improve from 0.00963
250 18/18 [=====] - 0s 9ms/step
    - loss: 0.0087 - accuracy: 0.2069 - val_loss: 0.0176
    - val_accuracy: 0.1733
251 Epoch 11/200
252 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0090 - accuracy: 0.2727
253 Epoch 11: val_loss did not improve from 0.00963
254 18/18 [=====] - 0s 8ms/step
    - loss: 0.0097 - accuracy: 0.2299 - val_loss: 0.0268
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254 - val_accuracy: 0.1733
255 Epoch 12/200
256 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0092 - accuracy: 0.2455
257 Epoch 12: val_loss did not improve from 0.00963
258 18/18 [=====] - 0s 9ms/step
    - loss: 0.0093 - accuracy: 0.2356 - val_loss: 0.0245
    - val_accuracy: 0.0533
259 Epoch 13/200
260 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0085 - accuracy: 0.3091
261 Epoch 13: val_loss did not improve from 0.00963
262 18/18 [=====] - 0s 10ms/step
    - loss: 0.0084 - accuracy: 0.2701 - val_loss: 0.0158
    - val_accuracy: 0.1733
263 Epoch 14/200
264 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0067 - accuracy: 0.2900
265 Epoch 14: val_loss did not improve from 0.00963
266 18/18 [=====] - 0s 9ms/step
    - loss: 0.0075 - accuracy: 0.2529 - val_loss: 0.0169
    - val_accuracy: 0.1733
267 Epoch 15/200
268 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0078 - accuracy: 0.2700
269 Epoch 15: val_loss did not improve from 0.00963
270 18/18 [=====] - 0s 8ms/step
    - loss: 0.0081 - accuracy: 0.2356 - val_loss: 0.0166
    - val_accuracy: 0.1467
271 Epoch 16/200
272 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0087 - accuracy: 0.1917
273 Epoch 16: val_loss did not improve from 0.00963
274 18/18 [=====] - 0s 10ms/step
    - loss: 0.0084 - accuracy: 0.2241 - val_loss: 0.0189
    - val_accuracy: 0.1733
275 Epoch 17/200
276 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0068 - accuracy: 0.2455
277 Epoch 17: val_loss did not improve from 0.00963
278 18/18 [=====] - 0s 8ms/step
```

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278 - loss: 0.0073 - accuracy: 0.2241 - val_loss: 0.0116
      - val_accuracy: 0.1733
279 Epoch 18/200
280 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0074 - accuracy: 0.3200
281 Epoch 18: val_loss improved from 0.00963 to 0.00947,
      saving model to HHV_Stock.h5
282 18/18 [=====] - 0s 11ms/step
      - loss: 0.0074 - accuracy: 0.2529 - val_loss: 0.0095
      - val_accuracy: 0.1733
283 Epoch 19/200
284 9/18 [=====>.....] - ETA: 0s -
      loss: 0.0085 - accuracy: 0.2889
285 Epoch 19: val_loss did not improve from 0.00947
286 18/18 [=====] - 0s 10ms/step
      - loss: 0.0075 - accuracy: 0.3046 - val_loss: 0.0106
      - val_accuracy: 0.1733
287 Epoch 20/200
288 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0080 - accuracy: 0.3182
289 Epoch 20: val_loss did not improve from 0.00947
290 18/18 [=====] - 0s 9ms/step
      - loss: 0.0083 - accuracy: 0.2874 - val_loss: 0.0110
      - val_accuracy: 0.0933
291 Epoch 21/200
292 9/18 [=====>.....] - ETA: 0s -
      loss: 0.0073 - accuracy: 0.2667
293 Epoch 21: val_loss improved from 0.00947 to 0.00817,
      saving model to HHV_Stock.h5
294 18/18 [=====] - 0s 11ms/step
      - loss: 0.0072 - accuracy: 0.2299 - val_loss: 0.0082
      - val_accuracy: 0.1733
295 Epoch 22/200
296 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0092 - accuracy: 0.2100
297 Epoch 22: val_loss did not improve from 0.00817
298 18/18 [=====] - 0s 9ms/step
      - loss: 0.0081 - accuracy: 0.2471 - val_loss: 0.0145
      - val_accuracy: 0.1733
299 Epoch 23/200
300 9/18 [=====>.....] - ETA: 0s -
```

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300 loss: 0.0061 - accuracy: 0.2222
301 Epoch 23: val_loss did not improve from 0.00817
302 18/18 [=====] - 0s 10ms/step
    - loss: 0.0073 - accuracy: 0.2126 - val_loss: 0.0149
    - val_accuracy: 0.1733
303 Epoch 24/200
304 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0071 - accuracy: 0.2818
305 Epoch 24: val_loss did not improve from 0.00817
306 18/18 [=====] - 0s 8ms/step
    - loss: 0.0076 - accuracy: 0.2069 - val_loss: 0.0136
    - val_accuracy: 0.1733
307 Epoch 25/200
308 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0070 - accuracy: 0.2000
309 Epoch 25: val_loss did not improve from 0.00817
310 18/18 [=====] - 0s 8ms/step
    - loss: 0.0081 - accuracy: 0.1954 - val_loss: 0.0138
    - val_accuracy: 0.1733
311 Epoch 26/200
312 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0057 - accuracy: 0.1500
313 Epoch 26: val_loss did not improve from 0.00817
314 18/18 [=====] - 0s 9ms/step
    - loss: 0.0068 - accuracy: 0.1782 - val_loss: 0.0242
    - val_accuracy: 0.1733
315 Epoch 27/200
316 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0087 - accuracy: 0.2091
317 Epoch 27: val_loss did not improve from 0.00817
318 18/18 [=====] - 0s 8ms/step
    - loss: 0.0079 - accuracy: 0.2126 - val_loss: 0.0249
    - val_accuracy: 0.0933
319 Epoch 28/200
320 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0062 - accuracy: 0.2455
321 Epoch 28: val_loss improved from 0.00817 to 0.00703,
    saving model to HHV_Stock.h5
322 18/18 [=====] - 0s 10ms/step
    - loss: 0.0063 - accuracy: 0.2586 - val_loss: 0.0070
    - val_accuracy: 0.2000
```

```
323 Epoch 29/200
324 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0079 - accuracy: 0.2000
325 Epoch 29: val_loss did not improve from 0.00703
326 18/18 [=====] - 0s 10ms/step
    - loss: 0.0073 - accuracy: 0.2356 - val_loss: 0.0135
    - val_accuracy: 0.1733
327 Epoch 30/200
328 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0061 - accuracy: 0.2273
329 Epoch 30: val_loss did not improve from 0.00703
330 18/18 [=====] - 0s 8ms/step
    - loss: 0.0068 - accuracy: 0.2241 - val_loss: 0.0143
    - val_accuracy: 0.1733
331 Epoch 31/200
332 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0077 - accuracy: 0.2000
333 Epoch 31: val_loss did not improve from 0.00703
334 18/18 [=====] - 0s 8ms/step
    - loss: 0.0071 - accuracy: 0.1897 - val_loss: 0.0146
    - val_accuracy: 0.0933
335 Epoch 32/200
336 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0061 - accuracy: 0.3364
337 Epoch 32: val_loss did not improve from 0.00703
338 18/18 [=====] - 0s 9ms/step
    - loss: 0.0063 - accuracy: 0.3276 - val_loss: 0.0141
    - val_accuracy: 0.1733
339 Epoch 33/200
340 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0066 - accuracy: 0.2273
341 Epoch 33: val_loss did not improve from 0.00703
342 18/18 [=====] - 0s 9ms/step
    - loss: 0.0065 - accuracy: 0.2299 - val_loss: 0.0094
    - val_accuracy: 0.0933
343 Epoch 34/200
344 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0064 - accuracy: 0.2667
345 Epoch 34: val_loss did not improve from 0.00703
346 18/18 [=====] - 0s 10ms/step
    - loss: 0.0061 - accuracy: 0.2126 - val_loss: 0.0079
```

```
346 - val_accuracy: 0.1733
347 Epoch 35/200
348 17/18 [=====>...] - ETA: 0s -
    loss: 0.0066 - accuracy: 0.2412
349 Epoch 35: val_loss did not improve from 0.00703
350 18/18 [=====] - 0s 12ms/step
    - loss: 0.0071 - accuracy: 0.2414 - val_loss: 0.0078
    - val_accuracy: 0.1733
351 Epoch 36/200
352 16/18 [=====>....] - ETA: 0s -
    loss: 0.0067 - accuracy: 0.2812
353 Epoch 36: val_loss did not improve from 0.00703
354 18/18 [=====] - 0s 11ms/step
    - loss: 0.0069 - accuracy: 0.2874 - val_loss: 0.0100
    - val_accuracy: 0.2267
355 Epoch 37/200
356 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0059 - accuracy: 0.2889
357 Epoch 37: val_loss did not improve from 0.00703
358 18/18 [=====] - 0s 10ms/step
    - loss: 0.0059 - accuracy: 0.2701 - val_loss: 0.0083
    - val_accuracy: 0.1733
359 Epoch 38/200
360 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0057 - accuracy: 0.3000
361 Epoch 38: val_loss did not improve from 0.00703
362 18/18 [=====] - 0s 9ms/step
    - loss: 0.0061 - accuracy: 0.2874 - val_loss: 0.0136
    - val_accuracy: 0.2933
363 Epoch 39/200
364 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0054 - accuracy: 0.2300
365 Epoch 39: val_loss did not improve from 0.00703
366 18/18 [=====] - 0s 9ms/step
    - loss: 0.0062 - accuracy: 0.2184 - val_loss: 0.0102
    - val_accuracy: 0.1867
367 Epoch 40/200
368 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0044 - accuracy: 0.2727
369 Epoch 40: val_loss did not improve from 0.00703
370 18/18 [=====] - 0s 9ms/step
```

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370  - loss: 0.0051 - accuracy: 0.2529 - val_loss: 0.0079
      - val_accuracy: 0.2667
371 Epoch 41/200
372 18/18 [=====] - ETA: 0s -
      loss: 0.0068 - accuracy: 0.2874
373 Epoch 41: val_loss improved from 0.00703 to 0.00497,
      saving model to HHV_Stock.h5
374 18/18 [=====] - 0s 10ms/step
      - loss: 0.0068 - accuracy: 0.2874 - val_loss: 0.0050
      - val_accuracy: 0.1867
375 Epoch 42/200
376 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0066 - accuracy: 0.2600
377 Epoch 42: val_loss did not improve from 0.00497
378 18/18 [=====] - 0s 10ms/step
      - loss: 0.0065 - accuracy: 0.2701 - val_loss: 0.0107
      - val_accuracy: 0.2933
379 Epoch 43/200
380 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0054 - accuracy: 0.2182
381 Epoch 43: val_loss did not improve from 0.00497
382 18/18 [=====] - 0s 9ms/step
      - loss: 0.0055 - accuracy: 0.2529 - val_loss: 0.0137
      - val_accuracy: 0.1733
383 Epoch 44/200
384 18/18 [=====] - ETA: 0s -
      loss: 0.0059 - accuracy: 0.2989
385 Epoch 44: val_loss did not improve from 0.00497
386 18/18 [=====] - 0s 9ms/step
      - loss: 0.0059 - accuracy: 0.2989 - val_loss: 0.0088
      - val_accuracy: 0.1733
387 Epoch 45/200
388 12/18 [=====>.....] - ETA: 0s -
      loss: 0.0056 - accuracy: 0.3083
389 Epoch 45: val_loss did not improve from 0.00497
390 18/18 [=====] - 0s 9ms/step
      - loss: 0.0060 - accuracy: 0.2816 - val_loss: 0.0203
      - val_accuracy: 0.3067
391 Epoch 46/200
392 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0090 - accuracy: 0.3000
```

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393 Epoch 46: val_loss did not improve from 0.00497
394 18/18 [=====] - 0s 8ms/step
    - loss: 0.0076 - accuracy: 0.2759 - val_loss: 0.0122
    - val_accuracy: 0.2800
395 Epoch 47/200
396 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0067 - accuracy: 0.2400
397 Epoch 47: val_loss did not improve from 0.00497
398 18/18 [=====] - 0s 9ms/step
    - loss: 0.0057 - accuracy: 0.2414 - val_loss: 0.0144
    - val_accuracy: 0.2933
399 Epoch 48/200
400 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0067 - accuracy: 0.2091
401 Epoch 48: val_loss did not improve from 0.00497
402 18/18 [=====] - 0s 8ms/step
    - loss: 0.0066 - accuracy: 0.1897 - val_loss: 0.0069
    - val_accuracy: 0.1867
403 Epoch 49/200
404 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0050 - accuracy: 0.2455
405 Epoch 49: val_loss did not improve from 0.00497
406 18/18 [=====] - 0s 8ms/step
    - loss: 0.0055 - accuracy: 0.2471 - val_loss: 0.0068
    - val_accuracy: 0.3067
407 Epoch 50/200
408 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0061 - accuracy: 0.2786
409 Epoch 50: val_loss did not improve from 0.00497
410 18/18 [=====] - 0s 10ms/step
    - loss: 0.0061 - accuracy: 0.2874 - val_loss: 0.0070
    - val_accuracy: 0.2133
411 Epoch 51/200
412 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0051 - accuracy: 0.2182
413 Epoch 51: val_loss did not improve from 0.00497
414 18/18 [=====] - 0s 9ms/step
    - loss: 0.0050 - accuracy: 0.2241 - val_loss: 0.0073
    - val_accuracy: 0.1867
415 Epoch 52/200
416 17/18 [=====>..] - ETA: 0s -
```

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416 loss: 0.0056 - accuracy: 0.2647
417 Epoch 52: val_loss did not improve from 0.00497
418 18/18 [=====] - 0s 10ms/step
    - loss: 0.0055 - accuracy: 0.2586 - val_loss: 0.0102
    - val_accuracy: 0.2267
419 Epoch 53/200
420 16/18 [=====>....] - ETA: 0s -
    loss: 0.0061 - accuracy: 0.2062
421 Epoch 53: val_loss did not improve from 0.00497
422 18/18 [=====] - 0s 10ms/step
    - loss: 0.0059 - accuracy: 0.2069 - val_loss: 0.0137
    - val_accuracy: 0.3200
423 Epoch 54/200
424 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0051 - accuracy: 0.2700
425 Epoch 54: val_loss did not improve from 0.00497
426 18/18 [=====] - 0s 9ms/step
    - loss: 0.0052 - accuracy: 0.2471 - val_loss: 0.0156
    - val_accuracy: 0.3200
427 Epoch 55/200
428 16/18 [=====>....] - ETA: 0s -
    loss: 0.0051 - accuracy: 0.2250
429 Epoch 55: val_loss did not improve from 0.00497
430 18/18 [=====] - 0s 10ms/step
    - loss: 0.0051 - accuracy: 0.2241 - val_loss: 0.0069
    - val_accuracy: 0.2933
431 Epoch 56/200
432 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0058 - accuracy: 0.3385
433 Epoch 56: val_loss did not improve from 0.00497
434 18/18 [=====] - 0s 8ms/step
    - loss: 0.0055 - accuracy: 0.3161 - val_loss: 0.0088
    - val_accuracy: 0.2400
435 Epoch 57/200
436 17/18 [=====>..] - ETA: 0s -
    loss: 0.0049 - accuracy: 0.3118
437 Epoch 57: val_loss did not improve from 0.00497
438 18/18 [=====] - 0s 9ms/step
    - loss: 0.0049 - accuracy: 0.3161 - val_loss: 0.0108
    - val_accuracy: 0.1733
439 Epoch 58/200
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440 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0058 - accuracy: 0.2333
441 Epoch 58: val_loss improved from 0.00497 to 0.00469,
    saving model to HHV_Stock.h5
442 18/18 [=====] - 0s 11ms/step
    - loss: 0.0054 - accuracy: 0.2069 - val_loss: 0.0047
    - val_accuracy: 0.3200
443 Epoch 59/200
444 18/18 [=====] - ETA: 0s -
    loss: 0.0056 - accuracy: 0.3046
445 Epoch 59: val_loss improved from 0.00469 to 0.00252,
    saving model to HHV_Stock.h5
446 18/18 [=====] - 0s 11ms/step
    - loss: 0.0056 - accuracy: 0.3046 - val_loss: 0.0025
    - val_accuracy: 0.0933
447 Epoch 60/200
448 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0052 - accuracy: 0.3300
449 Epoch 60: val_loss did not improve from 0.00252
450 18/18 [=====] - 0s 9ms/step
    - loss: 0.0052 - accuracy: 0.3046 - val_loss: 0.0052
    - val_accuracy: 0.2533
451 Epoch 61/200
452 16/18 [=====>....] - ETA: 0s -
    loss: 0.0049 - accuracy: 0.2812
453 Epoch 61: val_loss did not improve from 0.00252
454 18/18 [=====] - 0s 10ms/step
    - loss: 0.0048 - accuracy: 0.2701 - val_loss: 0.0037
    - val_accuracy: 0.3200
455 Epoch 62/200
456 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0050 - accuracy: 0.2889
457 Epoch 62: val_loss did not improve from 0.00252
458 18/18 [=====] - 0s 8ms/step
    - loss: 0.0049 - accuracy: 0.2356 - val_loss: 0.0071
    - val_accuracy: 0.3600
459 Epoch 63/200
460 17/18 [=====>..] - ETA: 0s -
    loss: 0.0054 - accuracy: 0.3059
461 Epoch 63: val_loss did not improve from 0.00252
462 18/18 [=====] - 0s 10ms/step
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462  - loss: 0.0054 - accuracy: 0.3046 - val_loss: 0.0049
      - val_accuracy: 0.2533
463 Epoch 64/200
464 12/18 [=====>.....] - ETA: 0s -
      loss: 0.0054 - accuracy: 0.2917
465 Epoch 64: val_loss did not improve from 0.00252
466 18/18 [=====] - 0s 8ms/step
      - loss: 0.0048 - accuracy: 0.2759 - val_loss: 0.0050
      - val_accuracy: 0.3467
467 Epoch 65/200
468 17/18 [=====>..] - ETA: 0s -
      loss: 0.0054 - accuracy: 0.2235
469 Epoch 65: val_loss improved from 0.00252 to 0.00251,
      saving model to HHV_Stock.h5
470 18/18 [=====] - 0s 11ms/step
      - loss: 0.0053 - accuracy: 0.2241 - val_loss: 0.0025
      - val_accuracy: 0.1733
471 Epoch 66/200
472 18/18 [=====] - ETA: 0s -
      loss: 0.0059 - accuracy: 0.2241
473 Epoch 66: val_loss did not improve from 0.00251
474 18/18 [=====] - 0s 9ms/step
      - loss: 0.0059 - accuracy: 0.2241 - val_loss: 0.0046
      - val_accuracy: 0.2533
475 Epoch 67/200
476 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0043 - accuracy: 0.2300
477 Epoch 67: val_loss did not improve from 0.00251
478 18/18 [=====] - 0s 9ms/step
      - loss: 0.0043 - accuracy: 0.2356 - val_loss: 0.0205
      - val_accuracy: 0.2533
479 Epoch 68/200
480 17/18 [=====>..] - ETA: 0s -
      loss: 0.0049 - accuracy: 0.2647
481 Epoch 68: val_loss did not improve from 0.00251
482 18/18 [=====] - 0s 9ms/step
      - loss: 0.0050 - accuracy: 0.2644 - val_loss: 0.0107
      - val_accuracy: 0.2933
483 Epoch 69/200
484 9/18 [=====>.....] - ETA: 0s -
      loss: 0.0044 - accuracy: 0.2333
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485 Epoch 69: val_loss did not improve from 0.00251
486 18/18 [=====] - 0s 10ms/step
    - loss: 0.0046 - accuracy: 0.2586 - val_loss: 0.0111
    - val_accuracy: 0.2800
487 Epoch 70/200
488 17/18 [=====>...] - ETA: 0s -
    loss: 0.0047 - accuracy: 0.3118
489 Epoch 70: val_loss did not improve from 0.00251
490 18/18 [=====] - 0s 10ms/step
    - loss: 0.0047 - accuracy: 0.3103 - val_loss: 0.0063
    - val_accuracy: 0.2000
491 Epoch 71/200
492 18/18 [=====] - ETA: 0s -
    loss: 0.0047 - accuracy: 0.2701
493 Epoch 71: val_loss did not improve from 0.00251
494 18/18 [=====] - 0s 9ms/step
    - loss: 0.0047 - accuracy: 0.2701 - val_loss: 0.0139
    - val_accuracy: 0.2533
495 Epoch 72/200
496 18/18 [=====] - ETA: 0s -
    loss: 0.0046 - accuracy: 0.2701
497 Epoch 72: val_loss did not improve from 0.00251
498 18/18 [=====] - 0s 9ms/step
    - loss: 0.0046 - accuracy: 0.2701 - val_loss: 0.0056
    - val_accuracy: 0.2267
499 Epoch 73/200
500 17/18 [=====>...] - ETA: 0s -
    loss: 0.0053 - accuracy: 0.2706
501 Epoch 73: val_loss did not improve from 0.00251
502 18/18 [=====] - 0s 10ms/step
    - loss: 0.0052 - accuracy: 0.2701 - val_loss: 0.0034
    - val_accuracy: 0.2800
503 Epoch 74/200
504 17/18 [=====>...] - ETA: 0s -
    loss: 0.0047 - accuracy: 0.2765
505 Epoch 74: val_loss did not improve from 0.00251
506 18/18 [=====] - 0s 9ms/step
    - loss: 0.0047 - accuracy: 0.2816 - val_loss: 0.0048
    - val_accuracy: 0.1733
507 Epoch 75/200
508 18/18 [=====] - ETA: 0s -
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508 loss: 0.0046 - accuracy: 0.3103
509 Epoch 75: val_loss did not improve from 0.00251
510 18/18 [=====] - 0s 9ms/step
    - loss: 0.0046 - accuracy: 0.3103 - val_loss: 0.0036
    - val_accuracy: 0.3200
511 Epoch 76/200
512 17/18 [=====>...] - ETA: 0s -
    loss: 0.0049 - accuracy: 0.2000
513 Epoch 76: val_loss did not improve from 0.00251
514 18/18 [=====] - 0s 10ms/step
    - loss: 0.0050 - accuracy: 0.2011 - val_loss: 0.0072
    - val_accuracy: 0.3067
515 Epoch 77/200
516 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.2333
517 Epoch 77: val_loss did not improve from 0.00251
518 18/18 [=====] - 0s 13ms/step
    - loss: 0.0044 - accuracy: 0.2356 - val_loss: 0.0030
    - val_accuracy: 0.1733
519 Epoch 78/200
520 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0044 - accuracy: 0.2929
521 Epoch 78: val_loss did not improve from 0.00251
522 18/18 [=====] - 0s 12ms/step
    - loss: 0.0043 - accuracy: 0.2701 - val_loss: 0.0028
    - val_accuracy: 0.2933
523 Epoch 79/200
524 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0046 - accuracy: 0.2545
525 Epoch 79: val_loss did not improve from 0.00251
526 18/18 [=====] - 0s 9ms/step
    - loss: 0.0044 - accuracy: 0.2644 - val_loss: 0.0081
    - val_accuracy: 0.2267
527 Epoch 80/200
528 15/18 [=====>....] - ETA: 0s -
    loss: 0.0045 - accuracy: 0.3333
529 Epoch 80: val_loss did not improve from 0.00251
530 18/18 [=====] - 0s 12ms/step
    - loss: 0.0046 - accuracy: 0.3218 - val_loss: 0.0062
    - val_accuracy: 0.3333
531 Epoch 81/200
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532 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0042 - accuracy: 0.2400
533 Epoch 81: val_loss did not improve from 0.00251
534 18/18 [=====] - 0s 9ms/step
    - loss: 0.0043 - accuracy: 0.2241 - val_loss: 0.0063
    - val_accuracy: 0.2800
535 Epoch 82/200
536 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0045 - accuracy: 0.3000
537 Epoch 82: val_loss did not improve from 0.00251
538 18/18 [=====] - 0s 8ms/step
    - loss: 0.0046 - accuracy: 0.3218 - val_loss: 0.0128
    - val_accuracy: 0.2533
539 Epoch 83/200
540 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0043 - accuracy: 0.2833
541 Epoch 83: val_loss did not improve from 0.00251
542 18/18 [=====] - 0s 8ms/step
    - loss: 0.0044 - accuracy: 0.2644 - val_loss: 0.0090
    - val_accuracy: 0.2533
543 Epoch 84/200
544 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.3333
545 Epoch 84: val_loss did not improve from 0.00251
546 18/18 [=====] - 0s 8ms/step
    - loss: 0.0041 - accuracy: 0.3103 - val_loss: 0.0054
    - val_accuracy: 0.1733
547 Epoch 85/200
548 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0040 - accuracy: 0.2917
549 Epoch 85: val_loss did not improve from 0.00251
550 18/18 [=====] - 0s 9ms/step
    - loss: 0.0041 - accuracy: 0.2759 - val_loss: 0.0050
    - val_accuracy: 0.2267
551 Epoch 86/200
552 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.3143
553 Epoch 86: val_loss did not improve from 0.00251
554 18/18 [=====] - 0s 12ms/step
    - loss: 0.0040 - accuracy: 0.2989 - val_loss: 0.0094
    - val_accuracy: 0.3200
```

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555 Epoch 87/200
556 15/18 [=====>.....] - ETA: 0s -
    loss: 0.0043 - accuracy: 0.2533
557 Epoch 87: val_loss did not improve from 0.00251
558 18/18 [=====] - 0s 11ms/step
    - loss: 0.0045 - accuracy: 0.2414 - val_loss: 0.0075
    - val_accuracy: 0.2267
559 Epoch 88/200
560 18/18 [=====] - ETA: 0s -
    loss: 0.0039 - accuracy: 0.3333
561 Epoch 88: val_loss did not improve from 0.00251
562 18/18 [=====] - 0s 9ms/step
    - loss: 0.0039 - accuracy: 0.3333 - val_loss: 0.0078
    - val_accuracy: 0.1733
563 Epoch 89/200
564 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0043 - accuracy: 0.2111
565 Epoch 89: val_loss did not improve from 0.00251
566 18/18 [=====] - 0s 9ms/step
    - loss: 0.0042 - accuracy: 0.2356 - val_loss: 0.0049
    - val_accuracy: 0.2667
567 Epoch 90/200
568 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0043 - accuracy: 0.2900
569 Epoch 90: val_loss did not improve from 0.00251
570 18/18 [=====] - 0s 9ms/step
    - loss: 0.0041 - accuracy: 0.2644 - val_loss: 0.0041
    - val_accuracy: 0.2133
571 Epoch 91/200
572 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0045 - accuracy: 0.2917
573 Epoch 91: val_loss did not improve from 0.00251
574 18/18 [=====] - 0s 9ms/step
    - loss: 0.0045 - accuracy: 0.2644 - val_loss: 0.0110
    - val_accuracy: 0.2000
575 Epoch 92/200
576 17/18 [=====>..] - ETA: 0s -
    loss: 0.0052 - accuracy: 0.3176
577 Epoch 92: val_loss did not improve from 0.00251
578 18/18 [=====] - 0s 10ms/step
    - loss: 0.0052 - accuracy: 0.3103 - val_loss: 0.0051
```

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578 - val_accuracy: 0.2133
579 Epoch 93/200
580 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0052 - accuracy: 0.2364
581 Epoch 93: val_loss did not improve from 0.00251
582 18/18 [=====] - 0s 9ms/step
    - loss: 0.0043 - accuracy: 0.2184 - val_loss: 0.0082
    - val_accuracy: 0.3467
583 Epoch 94/200
584 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.3444
585 Epoch 94: val_loss did not improve from 0.00251
586 18/18 [=====] - 0s 9ms/step
    - loss: 0.0034 - accuracy: 0.3621 - val_loss: 0.0074
    - val_accuracy: 0.2133
587 Epoch 95/200
588 17/18 [=====>..] - ETA: 0s -
    loss: 0.0042 - accuracy: 0.2588
589 Epoch 95: val_loss did not improve from 0.00251
590 18/18 [=====] - 0s 10ms/step
    - loss: 0.0042 - accuracy: 0.2586 - val_loss: 0.0085
    - val_accuracy: 0.1733
591 Epoch 96/200
592 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0043 - accuracy: 0.2308
593 Epoch 96: val_loss did not improve from 0.00251
594 18/18 [=====] - 0s 12ms/step
    - loss: 0.0044 - accuracy: 0.2356 - val_loss: 0.0056
    - val_accuracy: 0.1733
595 Epoch 97/200
596 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0041 - accuracy: 0.2889
597 Epoch 97: val_loss did not improve from 0.00251
598 18/18 [=====] - 0s 9ms/step
    - loss: 0.0042 - accuracy: 0.2816 - val_loss: 0.0073
    - val_accuracy: 0.1733
599 Epoch 98/200
600 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.2833
601 Epoch 98: val_loss did not improve from 0.00251
602 18/18 [=====] - 0s 8ms/step
```

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602 - loss: 0.0036 - accuracy: 0.2701 - val_loss: 0.0053
      - val_accuracy: 0.3867
603 Epoch 99/200
604 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0038 - accuracy: 0.2700
605 Epoch 99: val_loss did not improve from 0.00251
606 18/18 [=====] - 0s 8ms/step
      - loss: 0.0035 - accuracy: 0.3103 - val_loss: 0.0066
      - val_accuracy: 0.2933
607 Epoch 100/200
608 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0047 - accuracy: 0.2700
609 Epoch 100: val_loss did not improve from 0.00251
610 18/18 [=====] - 0s 8ms/step
      - loss: 0.0040 - accuracy: 0.2644 - val_loss: 0.0076
      - val_accuracy: 0.2533
611 Epoch 101/200
612 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0039 - accuracy: 0.3455
613 Epoch 101: val_loss did not improve from 0.00251
614 18/18 [=====] - 0s 8ms/step
      - loss: 0.0041 - accuracy: 0.3218 - val_loss: 0.0080
      - val_accuracy: 0.3067
615 Epoch 102/200
616 8/18 [=====>.....] - ETA: 0s -
      loss: 0.0039 - accuracy: 0.2250
617 Epoch 102: val_loss did not improve from 0.00251
618 18/18 [=====] - 0s 8ms/step
      - loss: 0.0036 - accuracy: 0.2414 - val_loss: 0.0091
      - val_accuracy: 0.4667
619 Epoch 103/200
620 12/18 [=====>.....] - ETA: 0s -
      loss: 0.0037 - accuracy: 0.2667
621 Epoch 103: val_loss did not improve from 0.00251
622 18/18 [=====] - 0s 9ms/step
      - loss: 0.0037 - accuracy: 0.2874 - val_loss: 0.0113
      - val_accuracy: 0.1733
623 Epoch 104/200
624 18/18 [=====] - ETA: 0s -
      loss: 0.0040 - accuracy: 0.3103
625 Epoch 104: val_loss did not improve from 0.00251
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626 18/18 [=====] - 0s 9ms/step
  - loss: 0.0040 - accuracy: 0.3103 - val_loss: 0.0048
  - val_accuracy: 0.3067
627 Epoch 105/200
628 17/18 [=====>...] - ETA: 0s -
  loss: 0.0035 - accuracy: 0.2765
629 Epoch 105: val_loss did not improve from 0.00251
630 18/18 [=====] - 0s 11ms/step
  - loss: 0.0036 - accuracy: 0.2816 - val_loss: 0.0065
  - val_accuracy: 0.1733
631 Epoch 106/200
632 17/18 [=====>...] - ETA: 0s -
  loss: 0.0038 - accuracy: 0.2824
633 Epoch 106: val_loss did not improve from 0.00251
634 18/18 [=====] - 0s 13ms/step
  - loss: 0.0037 - accuracy: 0.2816 - val_loss: 0.0061
  - val_accuracy: 0.3467
635 Epoch 107/200
636 18/18 [=====] - ETA: 0s -
  loss: 0.0038 - accuracy: 0.2701
637 Epoch 107: val_loss did not improve from 0.00251
638 18/18 [=====] - 0s 9ms/step
  - loss: 0.0038 - accuracy: 0.2701 - val_loss: 0.0048
  - val_accuracy: 0.1733
639 Epoch 108/200
640 18/18 [=====] - ETA: 0s -
  loss: 0.0040 - accuracy: 0.2644
641 Epoch 108: val_loss did not improve from 0.00251
642 18/18 [=====] - 0s 9ms/step
  - loss: 0.0040 - accuracy: 0.2644 - val_loss: 0.0038
  - val_accuracy: 0.1733
643 Epoch 109/200
644 11/18 [=====>.....] - ETA: 0s -
  loss: 0.0039 - accuracy: 0.2273
645 Epoch 109: val_loss did not improve from 0.00251
646 18/18 [=====] - 0s 9ms/step
  - loss: 0.0040 - accuracy: 0.2414 - val_loss: 0.0062
  - val_accuracy: 0.1733
647 Epoch 110/200
648 10/18 [=====>.....] - ETA: 0s -
  loss: 0.0035 - accuracy: 0.2500
```

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649 Epoch 110: val_loss did not improve from 0.00251
650 18/18 [=====] - 0s 9ms/step
    - loss: 0.0036 - accuracy: 0.2759 - val_loss: 0.0035
    - val_accuracy: 0.1733
651 Epoch 111/200
652 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0045 - accuracy: 0.3286
653 Epoch 111: val_loss did not improve from 0.00251
654 18/18 [=====] - 0s 12ms/step
    - loss: 0.0041 - accuracy: 0.3218 - val_loss: 0.0057
    - val_accuracy: 0.1733
655 Epoch 112/200
656 17/18 [=====>..] - ETA: 0s -
    loss: 0.0039 - accuracy: 0.3176
657 Epoch 112: val_loss did not improve from 0.00251
658 18/18 [=====] - 0s 11ms/step
    - loss: 0.0039 - accuracy: 0.3161 - val_loss: 0.0037
    - val_accuracy: 0.2533
659 Epoch 113/200
660 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.3143
661 Epoch 113: val_loss did not improve from 0.00251
662 18/18 [=====] - 0s 12ms/step
    - loss: 0.0036 - accuracy: 0.2989 - val_loss: 0.0066
    - val_accuracy: 0.2800
663 Epoch 114/200
664 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.2200
665 Epoch 114: val_loss did not improve from 0.00251
666 18/18 [=====] - 0s 9ms/step
    - loss: 0.0034 - accuracy: 0.2816 - val_loss: 0.0102
    - val_accuracy: 0.1733
667 Epoch 115/200
668 17/18 [=====>..] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.2588
669 Epoch 115: val_loss did not improve from 0.00251
670 18/18 [=====] - 0s 10ms/step
    - loss: 0.0038 - accuracy: 0.2586 - val_loss: 0.0082
    - val_accuracy: 0.3733
671 Epoch 116/200
672 17/18 [=====>..] - ETA: 0s -
```

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672 loss: 0.0039 - accuracy: 0.2529
673 Epoch 116: val_loss did not improve from 0.00251
674 18/18 [=====] - 0s 10ms/step
    - loss: 0.0038 - accuracy: 0.2529 - val_loss: 0.0119
    - val_accuracy: 0.2533
675 Epoch 117/200
676 18/18 [=====] - ETA: 0s -
    loss: 0.0041 - accuracy: 0.2586
677 Epoch 117: val_loss did not improve from 0.00251
678 18/18 [=====] - 0s 9ms/step
    - loss: 0.0041 - accuracy: 0.2586 - val_loss: 0.0171
    - val_accuracy: 0.3200
679 Epoch 118/200
680 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0033 - accuracy: 0.3700
681 Epoch 118: val_loss did not improve from 0.00251
682 18/18 [=====] - 0s 9ms/step
    - loss: 0.0035 - accuracy: 0.3621 - val_loss: 0.0054
    - val_accuracy: 0.3600
683 Epoch 119/200
684 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0040 - accuracy: 0.2714
685 Epoch 119: val_loss did not improve from 0.00251
686 18/18 [=====] - 0s 12ms/step
    - loss: 0.0041 - accuracy: 0.2759 - val_loss: 0.0089
    - val_accuracy: 0.1733
687 Epoch 120/200
688 15/18 [=====>.....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.3333
689 Epoch 120: val_loss did not improve from 0.00251
690 18/18 [=====] - 0s 12ms/step
    - loss: 0.0035 - accuracy: 0.3333 - val_loss: 0.0052
    - val_accuracy: 0.3867
691 Epoch 121/200
692 15/18 [=====>.....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.2133
693 Epoch 121: val_loss did not improve from 0.00251
694 18/18 [=====] - 0s 13ms/step
    - loss: 0.0036 - accuracy: 0.2241 - val_loss: 0.0058
    - val_accuracy: 0.1733
695 Epoch 122/200
```

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696 18/18 [=====] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.3103
697 Epoch 122: val_loss did not improve from 0.00251
698 18/18 [=====] - 0s 16ms/step
    - loss: 0.0036 - accuracy: 0.3103 - val_loss: 0.0091
    - val_accuracy: 0.3333
699 Epoch 123/200
700 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.3571
701 Epoch 123: val_loss did not improve from 0.00251
702 18/18 [=====] - 0s 15ms/step
    - loss: 0.0032 - accuracy: 0.3563 - val_loss: 0.0076
    - val_accuracy: 0.2533
703 Epoch 124/200
704 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.2538
705 Epoch 124: val_loss did not improve from 0.00251
706 18/18 [=====] - 0s 13ms/step
    - loss: 0.0032 - accuracy: 0.2816 - val_loss: 0.0109
    - val_accuracy: 0.2533
707 Epoch 125/200
708 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.2692
709 Epoch 125: val_loss did not improve from 0.00251
710 18/18 [=====] - 0s 13ms/step
    - loss: 0.0039 - accuracy: 0.2759 - val_loss: 0.0144
    - val_accuracy: 0.1733
711 Epoch 126/200
712 18/18 [=====] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.2644
713 Epoch 126: val_loss did not improve from 0.00251
714 18/18 [=====] - 0s 15ms/step
    - loss: 0.0037 - accuracy: 0.2644 - val_loss: 0.0119
    - val_accuracy: 0.2533
715 Epoch 127/200
716 17/18 [=====>..] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.2706
717 Epoch 127: val_loss did not improve from 0.00251
718 18/18 [=====] - 0s 15ms/step
    - loss: 0.0037 - accuracy: 0.2701 - val_loss: 0.0152
    - val_accuracy: 0.2533
```

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719 Epoch 128/200
720 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.3083
721 Epoch 128: val_loss did not improve from 0.00251
722 18/18 [=====] - 0s 14ms/step
    - loss: 0.0035 - accuracy: 0.2874 - val_loss: 0.0058
    - val_accuracy: 0.1733
723 Epoch 129/200
724 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0039 - accuracy: 0.2500
725 Epoch 129: val_loss did not improve from 0.00251
726 18/18 [=====] - 0s 13ms/step
    - loss: 0.0038 - accuracy: 0.2529 - val_loss: 0.0056
    - val_accuracy: 0.2533
727 Epoch 130/200
728 15/18 [=====>.....] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.2933
729 Epoch 130: val_loss did not improve from 0.00251
730 18/18 [=====] - 0s 13ms/step
    - loss: 0.0037 - accuracy: 0.2931 - val_loss: 0.0121
    - val_accuracy: 0.3467
731 Epoch 131/200
732 18/18 [=====] - ETA: 0s -
    loss: 0.0035 - accuracy: 0.3276
733 Epoch 131: val_loss did not improve from 0.00251
734 18/18 [=====] - 0s 9ms/step
    - loss: 0.0035 - accuracy: 0.3276 - val_loss: 0.0087
    - val_accuracy: 0.3333
735 Epoch 132/200
736 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0046 - accuracy: 0.2455
737 Epoch 132: val_loss did not improve from 0.00251
738 18/18 [=====] - 0s 9ms/step
    - loss: 0.0039 - accuracy: 0.2701 - val_loss: 0.0054
    - val_accuracy: 0.3467
739 Epoch 133/200
740 15/18 [=====>.....] - ETA: 0s -
    loss: 0.0042 - accuracy: 0.2533
741 Epoch 133: val_loss did not improve from 0.00251
742 18/18 [=====] - 0s 11ms/step
    - loss: 0.0040 - accuracy: 0.2586 - val_loss: 0.0047
```

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742 - val_accuracy: 0.1733
743 Epoch 134/200
744 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.3200
745 Epoch 134: val_loss did not improve from 0.00251
746 18/18 [=====] - 0s 9ms/step
    - loss: 0.0037 - accuracy: 0.3391 - val_loss: 0.0065
    - val_accuracy: 0.3067
747 Epoch 135/200
748 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0033 - accuracy: 0.2800
749 Epoch 135: val_loss did not improve from 0.00251
750 18/18 [=====] - 0s 9ms/step
    - loss: 0.0036 - accuracy: 0.3391 - val_loss: 0.0102
    - val_accuracy: 0.3067
751 Epoch 136/200
752 16/18 [=====>....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.2000
753 Epoch 136: val_loss did not improve from 0.00251
754 18/18 [=====] - 0s 11ms/step
    - loss: 0.0035 - accuracy: 0.1954 - val_loss: 0.0109
    - val_accuracy: 0.3067
755 Epoch 137/200
756 14/18 [=====>.....] - ETA: 0s -
    loss: 0.0035 - accuracy: 0.3214
757 Epoch 137: val_loss did not improve from 0.00251
758 18/18 [=====] - 0s 11ms/step
    - loss: 0.0039 - accuracy: 0.2989 - val_loss: 0.0106
    - val_accuracy: 0.3467
759 Epoch 138/200
760 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0026 - accuracy: 0.3000
761 Epoch 138: val_loss did not improve from 0.00251
762 18/18 [=====] - 0s 9ms/step
    - loss: 0.0030 - accuracy: 0.3276 - val_loss: 0.0117
    - val_accuracy: 0.1867
763 Epoch 139/200
764 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.2500
765 Epoch 139: val_loss did not improve from 0.00251
766 18/18 [=====] - 0s 9ms/step
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766 - loss: 0.0034 - accuracy: 0.2816 - val_loss: 0.0063
      - val_accuracy: 0.1733
767 Epoch 140/200
768 17/18 [=====>...] - ETA: 0s -
      loss: 0.0037 - accuracy: 0.3471
769 Epoch 140: val_loss did not improve from 0.00251
770 18/18 [=====] - 0s 9ms/step
      - loss: 0.0037 - accuracy: 0.3391 - val_loss: 0.0055
      - val_accuracy: 0.3200
771 Epoch 141/200
772 12/18 [=====>.....] - ETA: 0s -
      loss: 0.0033 - accuracy: 0.2417
773 Epoch 141: val_loss did not improve from 0.00251
774 18/18 [=====] - 0s 8ms/step
      - loss: 0.0034 - accuracy: 0.2184 - val_loss: 0.0075
      - val_accuracy: 0.3067
775 Epoch 142/200
776 18/18 [=====] - ETA: 0s -
      loss: 0.0034 - accuracy: 0.2874
777 Epoch 142: val_loss did not improve from 0.00251
778 18/18 [=====] - 0s 9ms/step
      - loss: 0.0034 - accuracy: 0.2874 - val_loss: 0.0083
      - val_accuracy: 0.1867
779 Epoch 143/200
780 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0038 - accuracy: 0.2800
781 Epoch 143: val_loss did not improve from 0.00251
782 18/18 [=====] - 0s 9ms/step
      - loss: 0.0036 - accuracy: 0.2989 - val_loss: 0.0067
      - val_accuracy: 0.2400
783 Epoch 144/200
784 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0039 - accuracy: 0.2900
785 Epoch 144: val_loss did not improve from 0.00251
786 18/18 [=====] - 0s 9ms/step
      - loss: 0.0034 - accuracy: 0.2701 - val_loss: 0.0077
      - val_accuracy: 0.1867
787 Epoch 145/200
788 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0035 - accuracy: 0.3455
789 Epoch 145: val_loss did not improve from 0.00251
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790 18/18 [=====] - 0s 8ms/step
  - loss: 0.0033 - accuracy: 0.3161 - val_loss: 0.0068
  - val_accuracy: 0.3067
791 Epoch 146/200
792 11/18 [=====>.....] - ETA: 0s -
  loss: 0.0035 - accuracy: 0.2000
793 Epoch 146: val_loss did not improve from 0.00251
794 18/18 [=====] - 0s 9ms/step
  - loss: 0.0032 - accuracy: 0.2299 - val_loss: 0.0076
  - val_accuracy: 0.2400
795 Epoch 147/200
796 9/18 [=====>.....] - ETA: 0s -
  loss: 0.0030 - accuracy: 0.3222
797 Epoch 147: val_loss did not improve from 0.00251
798 18/18 [=====] - 0s 8ms/step
  - loss: 0.0033 - accuracy: 0.3333 - val_loss: 0.0110
  - val_accuracy: 0.2533
799 Epoch 148/200
800 10/18 [=====>.....] - ETA: 0s -
  loss: 0.0033 - accuracy: 0.3100
801 Epoch 148: val_loss did not improve from 0.00251
802 18/18 [=====] - 0s 8ms/step
  - loss: 0.0033 - accuracy: 0.3103 - val_loss: 0.0115
  - val_accuracy: 0.2400
803 Epoch 149/200
804 12/18 [=====>.....] - ETA: 0s -
  loss: 0.0046 - accuracy: 0.3333
805 Epoch 149: val_loss did not improve from 0.00251
806 18/18 [=====] - 0s 8ms/step
  - loss: 0.0040 - accuracy: 0.3391 - val_loss: 0.0055
  - val_accuracy: 0.1733
807 Epoch 150/200
808 10/18 [=====>.....] - ETA: 0s -
  loss: 0.0026 - accuracy: 0.3300
809 Epoch 150: val_loss did not improve from 0.00251
810 18/18 [=====] - 0s 9ms/step
  - loss: 0.0030 - accuracy: 0.3448 - val_loss: 0.0083
  - val_accuracy: 0.2667
811 Epoch 151/200
812 11/18 [=====>.....] - ETA: 0s -
  loss: 0.0031 - accuracy: 0.2455
```

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813 Epoch 151: val_loss did not improve from 0.00251
814 18/18 [=====] - 0s 8ms/step
    - loss: 0.0035 - accuracy: 0.2471 - val_loss: 0.0084
    - val_accuracy: 0.2533
815 Epoch 152/200
816 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0028 - accuracy: 0.3000
817 Epoch 152: val_loss did not improve from 0.00251
818 18/18 [=====] - 0s 9ms/step
    - loss: 0.0031 - accuracy: 0.2471 - val_loss: 0.0147
    - val_accuracy: 0.2933
819 Epoch 153/200
820 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0024 - accuracy: 0.2364
821 Epoch 153: val_loss did not improve from 0.00251
822 18/18 [=====] - 0s 8ms/step
    - loss: 0.0034 - accuracy: 0.2126 - val_loss: 0.0093
    - val_accuracy: 0.1733
823 Epoch 154/200
824 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.2583
825 Epoch 154: val_loss did not improve from 0.00251
826 18/18 [=====] - 0s 8ms/step
    - loss: 0.0035 - accuracy: 0.3103 - val_loss: 0.0097
    - val_accuracy: 0.2400
827 Epoch 155/200
828 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0030 - accuracy: 0.3250
829 Epoch 155: val_loss did not improve from 0.00251
830 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.2989 - val_loss: 0.0065
    - val_accuracy: 0.2267
831 Epoch 156/200
832 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0028 - accuracy: 0.2667
833 Epoch 156: val_loss did not improve from 0.00251
834 18/18 [=====] - 0s 8ms/step
    - loss: 0.0033 - accuracy: 0.2931 - val_loss: 0.0112
    - val_accuracy: 0.2533
835 Epoch 157/200
836 11/18 [=====>.....] - ETA: 0s -
```

```
836 loss: 0.0040 - accuracy: 0.2727
837 Epoch 157: val_loss did not improve from 0.00251
838 18/18 [=====] - 0s 8ms/step
    - loss: 0.0040 - accuracy: 0.2471 - val_loss: 0.0074
    - val_accuracy: 0.3333
839 Epoch 158/200
840 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0036 - accuracy: 0.2615
841 Epoch 158: val_loss did not improve from 0.00251
842 18/18 [=====] - 0s 8ms/step
    - loss: 0.0035 - accuracy: 0.2644 - val_loss: 0.0075
    - val_accuracy: 0.3067
843 Epoch 159/200
844 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.3200
845 Epoch 159: val_loss did not improve from 0.00251
846 18/18 [=====] - 0s 9ms/step
    - loss: 0.0034 - accuracy: 0.2874 - val_loss: 0.0051
    - val_accuracy: 0.1733
847 Epoch 160/200
848 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.2600
849 Epoch 160: val_loss did not improve from 0.00251
850 18/18 [=====] - 0s 9ms/step
    - loss: 0.0032 - accuracy: 0.3046 - val_loss: 0.0056
    - val_accuracy: 0.2933
851 Epoch 161/200
852 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0029 - accuracy: 0.3273
853 Epoch 161: val_loss did not improve from 0.00251
854 18/18 [=====] - 0s 8ms/step
    - loss: 0.0033 - accuracy: 0.3103 - val_loss: 0.0089
    - val_accuracy: 0.1867
855 Epoch 162/200
856 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.3167
857 Epoch 162: val_loss did not improve from 0.00251
858 18/18 [=====] - 0s 8ms/step
    - loss: 0.0032 - accuracy: 0.3218 - val_loss: 0.0088
    - val_accuracy: 0.2533
859 Epoch 163/200
```

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860 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0027 - accuracy: 0.3083
861 Epoch 163: val_loss did not improve from 0.00251
862 18/18 [=====] - 0s 7ms/step
    - loss: 0.0032 - accuracy: 0.2759 - val_loss: 0.0065
    - val_accuracy: 0.1733
863 Epoch 164/200
864 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.2250
865 Epoch 164: val_loss did not improve from 0.00251
866 18/18 [=====] - 0s 8ms/step
    - loss: 0.0031 - accuracy: 0.2471 - val_loss: 0.0104
    - val_accuracy: 0.3333
867 Epoch 165/200
868 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.3300
869 Epoch 165: val_loss did not improve from 0.00251
870 18/18 [=====] - 0s 11ms/step
    - loss: 0.0031 - accuracy: 0.3333 - val_loss: 0.0085
    - val_accuracy: 0.1733
871 Epoch 166/200
872 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0029 - accuracy: 0.3700
873 Epoch 166: val_loss did not improve from 0.00251
874 18/18 [=====] - 0s 9ms/step
    - loss: 0.0031 - accuracy: 0.3391 - val_loss: 0.0083
    - val_accuracy: 0.2533
875 Epoch 167/200
876 15/18 [=====>....] - ETA: 0s -
    loss: 0.0033 - accuracy: 0.2867
877 Epoch 167: val_loss did not improve from 0.00251
878 18/18 [=====] - 0s 11ms/step
    - loss: 0.0033 - accuracy: 0.2816 - val_loss: 0.0061
    - val_accuracy: 0.2133
879 Epoch 168/200
880 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0030 - accuracy: 0.3800
881 Epoch 168: val_loss did not improve from 0.00251
882 18/18 [=====] - 0s 9ms/step
    - loss: 0.0036 - accuracy: 0.3678 - val_loss: 0.0060
    - val_accuracy: 0.3067
```

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883 Epoch 169/200
884 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.2400
885 Epoch 169: val_loss did not improve from 0.00251
886 18/18 [=====] - 0s 8ms/step
    - loss: 0.0028 - accuracy: 0.2644 - val_loss: 0.0085
    - val_accuracy: 0.2533
887 Epoch 170/200
888 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0028 - accuracy: 0.1818
889 Epoch 170: val_loss did not improve from 0.00251
890 18/18 [=====] - 0s 8ms/step
    - loss: 0.0028 - accuracy: 0.2069 - val_loss: 0.0096
    - val_accuracy: 0.2667
891 Epoch 171/200
892 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.2833
893 Epoch 171: val_loss did not improve from 0.00251
894 18/18 [=====] - 0s 9ms/step
    - loss: 0.0033 - accuracy: 0.2644 - val_loss: 0.0125
    - val_accuracy: 0.2133
895 Epoch 172/200
896 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0029 - accuracy: 0.3455
897 Epoch 172: val_loss did not improve from 0.00251
898 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.3563 - val_loss: 0.0117
    - val_accuracy: 0.2267
899 Epoch 173/200
900 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0035 - accuracy: 0.3250
901 Epoch 173: val_loss did not improve from 0.00251
902 18/18 [=====] - 0s 9ms/step
    - loss: 0.0032 - accuracy: 0.2989 - val_loss: 0.0084
    - val_accuracy: 0.1733
903 Epoch 174/200
904 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0035 - accuracy: 0.4000
905 Epoch 174: val_loss did not improve from 0.00251
906 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.3333 - val_loss: 0.0075
```

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906 - val_accuracy: 0.2533
907 Epoch 175/200
908 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0030 - accuracy: 0.2100
909 Epoch 175: val_loss did not improve from 0.00251
910 18/18 [=====] - 0s 8ms/step
    - loss: 0.0032 - accuracy: 0.2356 - val_loss: 0.0074
    - val_accuracy: 0.1733
911 Epoch 176/200
912 13/18 [=====>.....] - ETA: 0s -
    loss: 0.0027 - accuracy: 0.2923
913 Epoch 176: val_loss did not improve from 0.00251
914 18/18 [=====] - 0s 7ms/step
    - loss: 0.0028 - accuracy: 0.2586 - val_loss: 0.0094
    - val_accuracy: 0.1733
915 Epoch 177/200
916 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.3750
917 Epoch 177: val_loss did not improve from 0.00251
918 18/18 [=====] - 0s 8ms/step
    - loss: 0.0031 - accuracy: 0.3678 - val_loss: 0.0079
    - val_accuracy: 0.2267
919 Epoch 178/200
920 18/18 [=====] - ETA: 0s -
    loss: 0.0029 - accuracy: 0.2874
921 Epoch 178: val_loss did not improve from 0.00251
922 18/18 [=====] - 0s 10ms/step
    - loss: 0.0029 - accuracy: 0.2874 - val_loss: 0.0068
    - val_accuracy: 0.3200
923 Epoch 179/200
924 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.2700
925 Epoch 179: val_loss did not improve from 0.00251
926 18/18 [=====] - 0s 9ms/step
    - loss: 0.0033 - accuracy: 0.3333 - val_loss: 0.0086
    - val_accuracy: 0.1733
927 Epoch 180/200
928 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0031 - accuracy: 0.3833
929 Epoch 180: val_loss did not improve from 0.00251
930 18/18 [=====] - 0s 8ms/step
```

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930  - loss: 0.0034 - accuracy: 0.3908 - val_loss: 0.0109
      - val_accuracy: 0.3467
931 Epoch 181/200
932 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0034 - accuracy: 0.2200
933 Epoch 181: val_loss did not improve from 0.00251
934 18/18 [=====] - 0s 9ms/step
      - loss: 0.0032 - accuracy: 0.2356 - val_loss: 0.0038
      - val_accuracy: 0.1733
935 Epoch 182/200
936 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0027 - accuracy: 0.2273
937 Epoch 182: val_loss did not improve from 0.00251
938 18/18 [=====] - 0s 9ms/step
      - loss: 0.0033 - accuracy: 0.2759 - val_loss: 0.0053
      - val_accuracy: 0.3067
939 Epoch 183/200
940 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0035 - accuracy: 0.3200
941 Epoch 183: val_loss did not improve from 0.00251
942 18/18 [=====] - 0s 9ms/step
      - loss: 0.0033 - accuracy: 0.3448 - val_loss: 0.0080
      - val_accuracy: 0.3333
943 Epoch 184/200
944 10/18 [=====>.....] - ETA: 0s -
      loss: 0.0031 - accuracy: 0.2600
945 Epoch 184: val_loss did not improve from 0.00251
946 18/18 [=====] - 0s 8ms/step
      - loss: 0.0033 - accuracy: 0.2816 - val_loss: 0.0092
      - val_accuracy: 0.2000
947 Epoch 185/200
948 12/18 [=====>.....] - ETA: 0s -
      loss: 0.0026 - accuracy: 0.2333
949 Epoch 185: val_loss did not improve from 0.00251
950 18/18 [=====] - 0s 8ms/step
      - loss: 0.0031 - accuracy: 0.2356 - val_loss: 0.0084
      - val_accuracy: 0.1733
951 Epoch 186/200
952 11/18 [=====>.....] - ETA: 0s -
      loss: 0.0031 - accuracy: 0.3545
953 Epoch 186: val_loss did not improve from 0.00251
```

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954 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.3333 - val_loss: 0.0118
    - val_accuracy: 0.2400
955 Epoch 187/200
956 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.3100
957 Epoch 187: val_loss did not improve from 0.00251
958 18/18 [=====] - 0s 9ms/step
    - loss: 0.0038 - accuracy: 0.3563 - val_loss: 0.0083
    - val_accuracy: 0.2933
959 Epoch 188/200
960 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.2364
961 Epoch 188: val_loss did not improve from 0.00251
962 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.2529 - val_loss: 0.0094
    - val_accuracy: 0.1733
963 Epoch 189/200
964 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.3600
965 Epoch 189: val_loss did not improve from 0.00251
966 18/18 [=====] - 0s 8ms/step
    - loss: 0.0029 - accuracy: 0.3103 - val_loss: 0.0059
    - val_accuracy: 0.3067
967 Epoch 190/200
968 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0034 - accuracy: 0.2750
969 Epoch 190: val_loss did not improve from 0.00251
970 18/18 [=====] - 0s 8ms/step
    - loss: 0.0032 - accuracy: 0.2644 - val_loss: 0.0081
    - val_accuracy: 0.1733
971 Epoch 191/200
972 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0037 - accuracy: 0.2091
973 Epoch 191: val_loss did not improve from 0.00251
974 18/18 [=====] - 0s 9ms/step
    - loss: 0.0033 - accuracy: 0.2241 - val_loss: 0.0047
    - val_accuracy: 0.3333
975 Epoch 192/200
976 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.3500
```

```
977 Epoch 192: val_loss did not improve from 0.00251
978 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.3333 - val_loss: 0.
    0082 - val_accuracy: 0.3067
979 Epoch 193/200
980 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.2636
981 Epoch 193: val_loss did not improve from 0.00251
982 18/18 [=====] - 0s 8ms/step
    - loss: 0.0034 - accuracy: 0.3046 - val_loss: 0.
    0128 - val_accuracy: 0.1733
983 Epoch 194/200
984 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0033 - accuracy: 0.2500
985 Epoch 194: val_loss did not improve from 0.00251
986 18/18 [=====] - 0s 9ms/step
    - loss: 0.0027 - accuracy: 0.2931 - val_loss: 0.
    0072 - val_accuracy: 0.1867
987 Epoch 195/200
988 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0032 - accuracy: 0.2364
989 Epoch 195: val_loss did not improve from 0.00251
990 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.2701 - val_loss: 0.
    0117 - val_accuracy: 0.2267
991 Epoch 196/200
992 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0033 - accuracy: 0.2900
993 Epoch 196: val_loss did not improve from 0.00251
994 18/18 [=====] - 0s 8ms/step
    - loss: 0.0029 - accuracy: 0.2874 - val_loss: 0.
    0072 - val_accuracy: 0.3067
995 Epoch 197/200
996 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0030 - accuracy: 0.3750
997 Epoch 197: val_loss did not improve from 0.00251
998 18/18 [=====] - 0s 8ms/step
    - loss: 0.0030 - accuracy: 0.3448 - val_loss: 0.
    0046 - val_accuracy: 0.3067
999 Epoch 198/200
1000 12/18 [=====>.....] - ETA: 0s -
```

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1000 loss: 0.0033 - accuracy: 0.3250
1001 Epoch 198: val_loss did not improve from 0.00251
1002 18/18 [=====] - 0s 8ms/step
    - loss: 0.0032 - accuracy: 0.3161 - val_loss: 0.
    0048 - val_accuracy: 0.3067
1003 Epoch 199/200
1004 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0025 - accuracy: 0.2500
1005 Epoch 199: val_loss did not improve from 0.00251
1006 18/18 [=====] - 0s 9ms/step
    - loss: 0.0031 - accuracy: 0.2816 - val_loss: 0.
    0112 - val_accuracy: 0.2533
1007 Epoch 200/200
1008 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0038 - accuracy: 0.4200
1009 Epoch 200: val_loss did not improve from 0.00251
1010 18/18 [=====] - 0s 9ms/step
    - loss: 0.0033 - accuracy: 0.3506 - val_loss: 0.
    0074 - val_accuracy: 0.2000
1011 Epoch 1/200
1012 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0265 - accuracy: 0.1000
1013 Epoch 1: val_loss improved from inf to 0.14117,
    saving model to SFI_Stock.h5
1014 18/18 [=====] - 5s 62ms/
    step - loss: 0.0220 - accuracy: 0.1397 - val_loss: 0
    .1412 - val_accuracy: 0.1039
1015 Epoch 2/200
1016 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0129 - accuracy: 0.3000
1017 Epoch 2: val_loss improved from 0.14117 to 0.14052,
    saving model to SFI_Stock.h5
1018 18/18 [=====] - 0s 10ms/
    step - loss: 0.0119 - accuracy: 0.3240 - val_loss: 0
    .1405 - val_accuracy: 0.1039
1019 Epoch 3/200
1020 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0055 - accuracy: 0.3400
1021 Epoch 3: val_loss improved from 0.14052 to 0.00609,
    saving model to SFI_Stock.h5
1022 18/18 [=====] - 0s 11ms/
```

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1022 step - loss: 0.0042 - accuracy: 0.2849 - val_loss: 0
    .0061 - val_accuracy: 0.0779
1023 Epoch 4/200
1024 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0018 - accuracy: 0.2273
1025 Epoch 4: val_loss did not improve from 0.00609
1026 18/18 [=====] - 0s 9ms/step
    - loss: 0.0018 - accuracy: 0.2402 - val_loss: 0.
    0087 - val_accuracy: 0.4805
1027 Epoch 5/200
1028 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0015 - accuracy: 0.2545
1029 Epoch 5: val_loss improved from 0.00609 to 0.00528,
    saving model to SFI_Stock.h5
1030 18/18 [=====] - 0s 10ms/
    step - loss: 0.0018 - accuracy: 0.2346 - val_loss: 0
    .0053 - val_accuracy: 0.0260
1031 Epoch 6/200
1032 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0012 - accuracy: 0.3417
1033 Epoch 6: val_loss did not improve from 0.00528
1034 18/18 [=====] - 0s 8ms/step
    - loss: 0.0013 - accuracy: 0.3184 - val_loss: 0.
    0179 - val_accuracy: 0.0779
1035 Epoch 7/200
1036 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0012 - accuracy: 0.3700
1037 Epoch 7: val_loss did not improve from 0.00528
1038 18/18 [=====] - 0s 9ms/step
    - loss: 0.0016 - accuracy: 0.3464 - val_loss: 0.
    0135 - val_accuracy: 0.3506
1039 Epoch 8/200
1040 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0019 - accuracy: 0.3091
1041 Epoch 8: val_loss did not improve from 0.00528
1042 18/18 [=====] - 0s 8ms/step
    - loss: 0.0018 - accuracy: 0.3073 - val_loss: 0.
    0163 - val_accuracy: 0.3636
1043 Epoch 9/200
1044 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0016 - accuracy: 0.2900
```

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1045 Epoch 9: val_loss did not improve from 0.00528
1046 18/18 [=====] - 0s 10ms/
    step - loss: 0.0016 - accuracy: 0.3017 - val_loss: 0
    .0095 - val_accuracy: 0.3896
1047 Epoch 10/200
1048 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0016 - accuracy: 0.3364
1049 Epoch 10: val_loss improved from 0.00528 to 0.00501
    , saving model to SFI_Stock.h5
1050 18/18 [=====] - 0s 11ms/
    step - loss: 0.0013 - accuracy: 0.3799 - val_loss: 0
    .0050 - val_accuracy: 0.4156
1051 Epoch 11/200
1052 9/18 [=====>.....] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.3444
1053 Epoch 11: val_loss did not improve from 0.00501
1054 18/18 [=====] - 0s 10ms/
    step - loss: 0.0013 - accuracy: 0.3687 - val_loss: 0
    .0067 - val_accuracy: 0.5195
1055 Epoch 12/200
1056 10/18 [=====>.....] - ETA: 0s -
    loss: 9.6021e-04 - accuracy: 0.3400
1057 Epoch 12: val_loss did not improve from 0.00501
1058 18/18 [=====] - 0s 9ms/step
    - loss: 0.0010 - accuracy: 0.3575 - val_loss: 0.
    0051 - val_accuracy: 0.3896
1059 Epoch 13/200
1060 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0012 - accuracy: 0.2727
1061 Epoch 13: val_loss did not improve from 0.00501
1062 18/18 [=====] - 0s 9ms/step
    - loss: 0.0012 - accuracy: 0.2682 - val_loss: 0.
    0155 - val_accuracy: 0.2727
1063 Epoch 14/200
1064 17/18 [=====>..] - ETA: 0s -
    loss: 0.0010 - accuracy: 0.3824
1065 Epoch 14: val_loss did not improve from 0.00501
1066 18/18 [=====] - 0s 18ms/
    step - loss: 0.0011 - accuracy: 0.3855 - val_loss: 0
    .0059 - val_accuracy: 0.5195
1067 Epoch 15/200
```

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1068 18/18 [=====] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.3464
1069 Epoch 15: val_loss improved from 0.00501 to 0.00353
, saving model to SFI_Stock.h5
1070 18/18 [=====] - 0s 12ms/
step - loss: 0.0011 - accuracy: 0.3464 - val_loss: 0
.0035 - val_accuracy: 0.5195
1071 Epoch 16/200
1072 17/18 [=====>..] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.3471
1073 Epoch 16: val_loss did not improve from 0.00353
1074 18/18 [=====] - 0s 8ms/step
- loss: 0.0011 - accuracy: 0.3520 - val_loss: 0.
0059 - val_accuracy: 0.4935
1075 Epoch 17/200
1076 12/18 [=====>.....] - ETA: 0s -
    loss: 0.0012 - accuracy: 0.3250
1077 Epoch 17: val_loss improved from 0.00353 to 0.00319
, saving model to SFI_Stock.h5
1078 18/18 [=====] - 0s 10ms/
step - loss: 0.0011 - accuracy: 0.3073 - val_loss: 0
.0032 - val_accuracy: 0.4026
1079 Epoch 18/200
1080 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.4400
1081 Epoch 18: val_loss did not improve from 0.00319
1082 18/18 [=====] - 0s 8ms/step
- loss: 0.0010 - accuracy: 0.3911 - val_loss: 0.
0034 - val_accuracy: 0.4935
1083 Epoch 19/200
1084 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0010 - accuracy: 0.3700
1085 Epoch 19: val_loss did not improve from 0.00319
1086 18/18 [=====] - 0s 8ms/step
- loss: 0.0011 - accuracy: 0.3799 - val_loss: 0.
0093 - val_accuracy: 0.5065
1087 Epoch 20/200
1088 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.3455
1089 Epoch 20: val_loss did not improve from 0.00319
1090 18/18 [=====] - 0s 9ms/step
```

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1090 - loss: 0.0011 - accuracy: 0.3520 - val_loss: 0.  
0050 - val_accuracy: 0.4026  
1091 Epoch 21/200  
1092 10/18 [=====>.....] - ETA: 0s -  
loss: 9.9990e-04 - accuracy: 0.3900  
1093 Epoch 21: val_loss did not improve from 0.00319  
1094 18/18 [=====] - 0s 8ms/step  
- loss: 9.5850e-04 - accuracy: 0.3911 - val_loss: 0  
.0046 - val_accuracy: 0.3636  
1095 Epoch 22/200  
1096 15/18 [=====>....] - ETA: 0s -  
loss: 9.9788e-04 - accuracy: 0.3600  
1097 Epoch 22: val_loss did not improve from 0.00319  
1098 18/18 [=====] - 0s 10ms/  
step - loss: 9.5947e-04 - accuracy: 0.3520 -  
val_loss: 0.0078 - val_accuracy: 0.3636  
1099 Epoch 23/200  
1100 15/18 [=====>....] - ETA: 0s -  
loss: 0.0011 - accuracy: 0.4133  
1101 Epoch 23: val_loss did not improve from 0.00319  
1102 18/18 [=====] - 0s 12ms/  
step - loss: 9.9398e-04 - accuracy: 0.3966 -  
val_loss: 0.0048 - val_accuracy: 0.4805  
1103 Epoch 24/200  
1104 15/18 [=====>....] - ETA: 0s -  
loss: 0.0011 - accuracy: 0.3067  
1105 Epoch 24: val_loss did not improve from 0.00319  
1106 18/18 [=====] - 0s 10ms/  
step - loss: 0.0010 - accuracy: 0.3184 - val_loss: 0  
.0060 - val_accuracy: 0.3636  
1107 Epoch 25/200  
1108 10/18 [=====>.....] - ETA: 0s -  
loss: 8.2992e-04 - accuracy: 0.3800  
1109 Epoch 25: val_loss did not improve from 0.00319  
1110 18/18 [=====] - 0s 8ms/step  
- loss: 8.4638e-04 - accuracy: 0.3631 - val_loss: 0  
.0049 - val_accuracy: 0.4935  
1111 Epoch 26/200  
1112 10/18 [=====>.....] - ETA: 0s -  
loss: 9.3621e-04 - accuracy: 0.3900  
1113 Epoch 26: val_loss did not improve from 0.00319
```

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1114 18/18 [=====] - 0s 9ms/step
    - loss: 9.4361e-04 - accuracy: 0.3687 - val_loss: 0
    .0045 - val_accuracy: 0.4026
1115 Epoch 27/200
1116 10/18 [=====>.....] - ETA: 0s -
    loss: 8.0555e-04 - accuracy: 0.3900
1117 Epoch 27: val_loss did not improve from 0.00319
1118 18/18 [=====] - 0s 9ms/step
    - loss: 8.5617e-04 - accuracy: 0.3631 - val_loss: 0
    .0073 - val_accuracy: 0.4935
1119 Epoch 28/200
1120 10/18 [=====>.....] - ETA: 0s -
    loss: 9.7365e-04 - accuracy: 0.3200
1121 Epoch 28: val_loss did not improve from 0.00319
1122 18/18 [=====] - 0s 8ms/step
    - loss: 9.1629e-04 - accuracy: 0.3911 - val_loss: 0
    .0046 - val_accuracy: 0.4935
1123 Epoch 29/200
1124 10/18 [=====>.....] - ETA: 0s -
    loss: 8.3054e-04 - accuracy: 0.3900
1125 Epoch 29: val_loss did not improve from 0.00319
1126 18/18 [=====] - 0s 8ms/step
    - loss: 8.5086e-04 - accuracy: 0.3855 - val_loss: 0
    .0052 - val_accuracy: 0.4026
1127 Epoch 30/200
1128 11/18 [=====>.....] - ETA: 0s -
    loss: 8.4094e-04 - accuracy: 0.3727
1129 Epoch 30: val_loss improved from 0.00319 to 0.00314
    , saving model to SFI_Stock.h5
1130 18/18 [=====] - 0s 9ms/step
    - loss: 8.4769e-04 - accuracy: 0.3855 - val_loss: 0
    .0031 - val_accuracy: 0.3636
1131 Epoch 31/200
1132 11/18 [=====>.....] - ETA: 0s -
    loss: 9.0083e-04 - accuracy: 0.3727
1133 Epoch 31: val_loss improved from 0.00314 to 0.00284
    , saving model to SFI_Stock.h5
1134 18/18 [=====] - 0s 9ms/step
    - loss: 9.1046e-04 - accuracy: 0.3520 - val_loss: 0
    .0028 - val_accuracy: 0.3766
1135 Epoch 32/200
```

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1136 10/18 [=====>.....] - ETA: 0s -
    loss: 9.1793e-04 - accuracy: 0.3800
1137 Epoch 32: val_loss did not improve from 0.00284
1138 18/18 [=====] - 0s 8ms/step
    - loss: 9.5969e-04 - accuracy: 0.3743 - val_loss: 0
    .0033 - val_accuracy: 0.4026
1139 Epoch 33/200
1140 10/18 [=====>.....] - ETA: 0s -
    loss: 0.0011 - accuracy: 0.4200
1141 Epoch 33: val_loss did not improve from 0.00284
1142 18/18 [=====] - 0s 8ms/step
    - loss: 0.0010 - accuracy: 0.4078 - val_loss: 0
    .0032 - val_accuracy: 0.4805
1143 Epoch 34/200
1144 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0010 - accuracy: 0.4909
1145 Epoch 34: val_loss did not improve from 0.00284
1146 18/18 [=====] - 0s 8ms/step
    - loss: 7.8823e-04 - accuracy: 0.4246 - val_loss: 0
    .0040 - val_accuracy: 0.4026
1147 Epoch 35/200
1148 10/18 [=====>.....] - ETA: 0s -
    loss: 9.6960e-04 - accuracy: 0.4100
1149 Epoch 35: val_loss improved from 0.00284 to 0.00278
    , saving model to SFI_Stock.h5
1150 18/18 [=====] - 0s 10ms/
    step - loss: 9.7975e-04 - accuracy: 0.3743 -
    val_loss: 0.0028 - val_accuracy: 0.3506
1151 Epoch 36/200
1152 10/18 [=====>.....] - ETA: 0s -
    loss: 6.9354e-04 - accuracy: 0.4300
1153 Epoch 36: val_loss did not improve from 0.00278
1154 18/18 [=====] - 0s 8ms/step
    - loss: 8.1184e-04 - accuracy: 0.4134 - val_loss: 0
    .0031 - val_accuracy: 0.4545
1155 Epoch 37/200
1156 12/18 [=====>.....] - ETA: 0s -
    loss: 7.3772e-04 - accuracy: 0.4333
1157 Epoch 37: val_loss did not improve from 0.00278
1158 18/18 [=====] - 0s 11ms/
    step - loss: 8.6222e-04 - accuracy: 0.4469 -
```

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1158 val_loss: 0.0030 - val_accuracy: 0.4935
1159 Epoch 38/200
1160 10/18 [=====>.....] - ETA: 0s -
    loss: 8.8152e-04 - accuracy: 0.4400
1161 Epoch 38: val_loss improved from 0.00278 to 0.00252
    , saving model to SFI_Stock.h5
1162 18/18 [=====] - 0s 10ms/
    step - loss: 8.9930e-04 - accuracy: 0.4581 -
    val_loss: 0.0025 - val_accuracy: 0.4026
1163 Epoch 39/200
1164 10/18 [=====>.....] - ETA: 0s -
    loss: 7.8934e-04 - accuracy: 0.4400
1165 Epoch 39: val_loss improved from 0.00252 to 0.00248
    , saving model to SFI_Stock.h5
1166 18/18 [=====] - 0s 10ms/
    step - loss: 7.1677e-04 - accuracy: 0.4022 -
    val_loss: 0.0025 - val_accuracy: 0.4675
1167 Epoch 40/200
1168 15/18 [=====>....] - ETA: 0s -
    loss: 8.8254e-04 - accuracy: 0.3800
1169 Epoch 40: val_loss did not improve from 0.00248
1170 18/18 [=====] - 0s 11ms/
    step - loss: 8.2847e-04 - accuracy: 0.3687 -
    val_loss: 0.0031 - val_accuracy: 0.4156
1171 Epoch 41/200
1172 18/18 [=====] - ETA: 0s -
    loss: 8.1946e-04 - accuracy: 0.4246
1173 Epoch 41: val_loss did not improve from 0.00248
1174 18/18 [=====] - 0s 9ms/step
    - loss: 8.1946e-04 - accuracy: 0.4246 - val_loss: 0
    .0030 - val_accuracy: 0.4286
1175 Epoch 42/200
1176 18/18 [=====] - ETA: 0s -
    loss: 7.8697e-04 - accuracy: 0.4413
1177 Epoch 42: val_loss did not improve from 0.00248
1178 18/18 [=====] - 0s 9ms/step
    - loss: 7.8697e-04 - accuracy: 0.4413 - val_loss: 0
    .0025 - val_accuracy: 0.4026
1179 Epoch 43/200
1180 18/18 [=====] - ETA: 0s -
    loss: 8.5106e-04 - accuracy: 0.3855
```

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1181 Epoch 43: val_loss improved from 0.00248 to 0.00241
, saving model to SFI_Stock.h5
1182 18/18 [=====] - 0s 11ms/
step - loss: 8.5106e-04 - accuracy: 0.3855 -
val_loss: 0.0024 - val_accuracy: 0.2338
1183 Epoch 44/200
1184 17/18 [=====>..] - ETA: 0s -
loss: 8.7147e-04 - accuracy: 0.3765
1185 Epoch 44: val_loss did not improve from 0.00241
1186 18/18 [=====] - 0s 9ms/step
- loss: 8.5766e-04 - accuracy: 0.3966 - val_loss: 0
.0030 - val_accuracy: 0.4026
1187 Epoch 45/200
1188 18/18 [=====] - ETA: 0s -
loss: 8.2748e-04 - accuracy: 0.3743
1189 Epoch 45: val_loss did not improve from 0.00241
1190 18/18 [=====] - 0s 9ms/step
- loss: 8.2748e-04 - accuracy: 0.3743 - val_loss: 0
.0031 - val_accuracy: 0.4675
1191 Epoch 46/200
1192 11/18 [=====>.....] - ETA: 0s -
loss: 7.8843e-04 - accuracy: 0.4636
1193 Epoch 46: val_loss did not improve from 0.00241
1194 18/18 [=====] - 0s 8ms/step
- loss: 8.0272e-04 - accuracy: 0.4246 - val_loss: 0
.0036 - val_accuracy: 0.4935
1195 Epoch 47/200
1196 10/18 [=====>.....] - ETA: 0s -
loss: 7.0647e-04 - accuracy: 0.4600
1197 Epoch 47: val_loss did not improve from 0.00241
1198 18/18 [=====] - 0s 9ms/step
- loss: 7.1078e-04 - accuracy: 0.4469 - val_loss: 0
.0029 - val_accuracy: 0.3247
1199 Epoch 48/200
1200 17/18 [=====>..] - ETA: 0s -
loss: 6.3872e-04 - accuracy: 0.3471
1201 Epoch 48: val_loss improved from 0.00241 to 0.00211
, saving model to SFI_Stock.h5
1202 18/18 [=====] - 0s 12ms/
step - loss: 6.5546e-04 - accuracy: 0.3408 -
val_loss: 0.0021 - val_accuracy: 0.4675
```

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1203 Epoch 49/200
1204 10/18 [=====>.....] - ETA: 0s -
    loss: 7.1734e-04 - accuracy: 0.3600
1205 Epoch 49: val_loss did not improve from 0.00211
1206 18/18 [=====] - 0s 9ms/step
    - loss: 7.4482e-04 - accuracy: 0.3687 - val_loss: 0
    .0022 - val_accuracy: 0.4026
1207 Epoch 50/200
1208 16/18 [=====>....] - ETA: 0s -
    loss: 6.5267e-04 - accuracy: 0.3812
1209 Epoch 50: val_loss did not improve from 0.00211
1210 18/18 [=====] - 0s 10ms/
    step - loss: 7.1959e-04 - accuracy: 0.3799 -
    val_loss: 0.0063 - val_accuracy: 0.4935
1211 Epoch 51/200
1212 18/18 [=====] - ETA: 0s -
    loss: 7.6602e-04 - accuracy: 0.3687
1213 Epoch 51: val_loss did not improve from 0.00211
1214 18/18 [=====] - 0s 9ms/step
    - loss: 7.6602e-04 - accuracy: 0.3687 - val_loss: 0
    .0046 - val_accuracy: 0.4156
1215 Epoch 52/200
1216 10/18 [=====>.....] - ETA: 0s -
    loss: 9.9900e-04 - accuracy: 0.4300
1217 Epoch 52: val_loss improved from 0.00211 to 0.00193
, saving model to SFI_Stock.h5
1218 18/18 [=====] - 0s 10ms/
    step - loss: 7.7530e-04 - accuracy: 0.4581 -
    val_loss: 0.0019 - val_accuracy: 0.5325
1219 Epoch 53/200
1220 17/18 [=====>..] - ETA: 0s -
    loss: 7.3065e-04 - accuracy: 0.3941
1221 Epoch 53: val_loss did not improve from 0.00193
1222 18/18 [=====] - 0s 10ms/
    step - loss: 7.2788e-04 - accuracy: 0.3911 -
    val_loss: 0.0033 - val_accuracy: 0.5195
1223 Epoch 54/200
1224 10/18 [=====>.....] - ETA: 0s -
    loss: 7.3839e-04 - accuracy: 0.3900
1225 Epoch 54: val_loss did not improve from 0.00193
1226 18/18 [=====] - 0s 8ms/step
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1226  - loss: 7.1208e-04 - accuracy: 0.3799 - val_loss: 0
      .0021 - val_accuracy: 0.3247
1227 Epoch 55/200
1228 18/18 [=====] - ETA: 0s -
      loss: 7.2780e-04 - accuracy: 0.3464
1229 Epoch 55: val_loss did not improve from 0.00193
1230 18/18 [=====] - 0s 9ms/step
      - loss: 7.2780e-04 - accuracy: 0.3464 - val_loss: 0
      .0032 - val_accuracy: 0.4545
1231 Epoch 56/200
1232 18/18 [=====] - ETA: 0s -
      loss: 8.2059e-04 - accuracy: 0.3687
1233 Epoch 56: val_loss did not improve from 0.00193
1234 18/18 [=====] - 0s 9ms/step
      - loss: 8.2059e-04 - accuracy: 0.3687 - val_loss: 0
      .0020 - val_accuracy: 0.3377
1235 Epoch 57/200
1236 17/18 [=====>..] - ETA: 0s -
      loss: 6.7137e-04 - accuracy: 0.3941
1237 Epoch 57: val_loss did not improve from 0.00193
1238 18/18 [=====] - 0s 9ms/step
      - loss: 7.2902e-04 - accuracy: 0.4022 - val_loss: 0
      .0020 - val_accuracy: 0.4026
1239 Epoch 58/200
1240 18/18 [=====] - ETA: 0s -
      loss: 7.6058e-04 - accuracy: 0.4078
1241 Epoch 58: val_loss did not improve from 0.00193
1242 18/18 [=====] - 0s 9ms/step
      - loss: 7.6058e-04 - accuracy: 0.4078 - val_loss: 0
      .0026 - val_accuracy: 0.4026
1243 Epoch 59/200
1244 18/18 [=====] - ETA: 0s -
      loss: 6.3565e-04 - accuracy: 0.3966
1245 Epoch 59: val_loss improved from 0.00193 to 0.00180
      , saving model to SFI_Stock.h5
1246 18/18 [=====] - 0s 16ms/
      step - loss: 6.3565e-04 - accuracy: 0.3966 -
      val_loss: 0.0018 - val_accuracy: 0.4026
1247 Epoch 60/200
1248 10/18 [=====>.....] - ETA: 0s -
      loss: 5.6791e-04 - accuracy: 0.3400
```

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1249 Epoch 60: val_loss did not improve from 0.00180
1250 18/18 [=====] - 0s 8ms/step
    - loss: 6.3950e-04 - accuracy: 0.3464 - val_loss: 0
    .0021 - val_accuracy: 0.4545
1251 Epoch 61/200
1252 18/18 [=====] - ETA: 0s -
    loss: 5.9728e-04 - accuracy: 0.4190
1253 Epoch 61: val_loss did not improve from 0.00180
1254 18/18 [=====] - 0s 9ms/step
    - loss: 5.9728e-04 - accuracy: 0.4190 - val_loss: 0
    .0019 - val_accuracy: 0.3117
1255 Epoch 62/200
1256 11/18 [=====>.....] - ETA: 0s -
    loss: 5.4941e-04 - accuracy: 0.3455
1257 Epoch 62: val_loss improved from 0.00180 to 0.00176
    , saving model to SFI_Stock.h5
1258 18/18 [=====] - 0s 10ms/
    step - loss: 6.7660e-04 - accuracy: 0.3464 -
    val_loss: 0.0018 - val_accuracy: 0.4935
1259 Epoch 63/200
1260 10/18 [=====>.....] - ETA: 0s -
    loss: 4.9731e-04 - accuracy: 0.4300
1261 Epoch 63: val_loss improved from 0.00176 to 0.00169
    , saving model to SFI_Stock.h5
1262 18/18 [=====] - 0s 10ms/
    step - loss: 6.4554e-04 - accuracy: 0.4246 -
    val_loss: 0.0017 - val_accuracy: 0.4416
1263 Epoch 64/200
1264 18/18 [=====] - ETA: 0s -
    loss: 6.7092e-04 - accuracy: 0.4134
1265 Epoch 64: val_loss did not improve from 0.00169
1266 18/18 [=====] - 0s 9ms/step
    - loss: 6.7092e-04 - accuracy: 0.4134 - val_loss: 0
    .0020 - val_accuracy: 0.3766
1267 Epoch 65/200
1268 18/18 [=====] - ETA: 0s -
    loss: 6.2170e-04 - accuracy: 0.3631
1269 Epoch 65: val_loss improved from 0.00169 to 0.00160
    , saving model to SFI_Stock.h5
1270 18/18 [=====] - 0s 11ms/
    step - loss: 6.2170e-04 - accuracy: 0.3631 -
```

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1270 val_loss: 0.0016 - val_accuracy: 0.4026
1271 Epoch 66/200
1272 10/18 [=====>.....] - ETA: 0s -
    loss: 6.5659e-04 - accuracy: 0.4000
1273 Epoch 66: val_loss did not improve from 0.00160
1274 18/18 [=====] - 0s 10ms/
    step - loss: 7.0156e-04 - accuracy: 0.3966 -
    val_loss: 0.0017 - val_accuracy: 0.4805
1275 Epoch 67/200
1276 17/18 [=====>..] - ETA: 0s -
    loss: 6.2718e-04 - accuracy: 0.4353
1277 Epoch 67: val_loss improved from 0.00160 to 0.00145
    , saving model to SFI_Stock.h5
1278 18/18 [=====] - 0s 12ms/
    step - loss: 6.4039e-04 - accuracy: 0.4302 -
    val_loss: 0.0015 - val_accuracy: 0.2987
1279 Epoch 68/200
1280 18/18 [=====] - ETA: 0s -
    loss: 5.6012e-04 - accuracy: 0.4190
1281 Epoch 68: val_loss did not improve from 0.00145
1282 18/18 [=====] - 0s 10ms/
    step - loss: 5.6012e-04 - accuracy: 0.4190 -
    val_loss: 0.0015 - val_accuracy: 0.4805
1283 Epoch 69/200
1284 11/18 [=====>.....] - ETA: 0s -
    loss: 9.6623e-04 - accuracy: 0.3545
1285 Epoch 69: val_loss did not improve from 0.00145
1286 18/18 [=====] - 0s 8ms/step
    - loss: 7.9204e-04 - accuracy: 0.3911 - val_loss: 0
    .0018 - val_accuracy: 0.4675
1287 Epoch 70/200
1288 17/18 [=====>..] - ETA: 0s -
    loss: 6.5855e-04 - accuracy: 0.3882
1289 Epoch 70: val_loss did not improve from 0.00145
1290 18/18 [=====] - 0s 9ms/step
    - loss: 6.4648e-04 - accuracy: 0.3966 - val_loss: 0
    .0016 - val_accuracy: 0.4805
1291 Epoch 71/200
1292 10/18 [=====>.....] - ETA: 0s -
    loss: 9.2773e-04 - accuracy: 0.4500
1293 Epoch 71: val_loss did not improve from 0.00145
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1294 18/18 [=====] - 0s 8ms/step
      - loss: 6.7931e-04 - accuracy: 0.4413 - val_loss: 0
      .0028 - val_accuracy: 0.4805
1295 Epoch 72/200
1296 13/18 [=====>.....] - ETA: 0s -
      loss: 5.3739e-04 - accuracy: 0.4000
1297 Epoch 72: val_loss did not improve from 0.00145
1298 18/18 [=====] - 0s 7ms/step
      - loss: 5.1790e-04 - accuracy: 0.4134 - val_loss: 0
      .0016 - val_accuracy: 0.3766
1299 Epoch 73/200
1300 12/18 [=====>.....] - ETA: 0s -
      loss: 7.3474e-04 - accuracy: 0.3667
1301 Epoch 73: val_loss did not improve from 0.00145
1302 18/18 [=====] - 0s 8ms/step
      - loss: 6.2026e-04 - accuracy: 0.3631 - val_loss: 0
      .0015 - val_accuracy: 0.5065
1303 Epoch 74/200
1304 11/18 [=====>.....] - ETA: 0s -
      loss: 6.9915e-04 - accuracy: 0.3545
1305 Epoch 74: val_loss did not improve from 0.00145
1306 18/18 [=====] - 0s 8ms/step
      - loss: 7.2297e-04 - accuracy: 0.3743 - val_loss: 0
      .0081 - val_accuracy: 0.4026
1307 Epoch 75/200
1308 12/18 [=====>.....] - ETA: 0s -
      loss: 5.0963e-04 - accuracy: 0.4167
1309 Epoch 75: val_loss did not improve from 0.00145
1310 18/18 [=====] - 0s 8ms/step
      - loss: 5.3300e-04 - accuracy: 0.4246 - val_loss: 0
      .0037 - val_accuracy: 0.2468
1311 Epoch 76/200
1312 11/18 [=====>.....] - ETA: 0s -
      loss: 7.2521e-04 - accuracy: 0.3545
1313 Epoch 76: val_loss did not improve from 0.00145
1314 18/18 [=====] - 0s 8ms/step
      - loss: 6.8013e-04 - accuracy: 0.3464 - val_loss: 0
      .0016 - val_accuracy: 0.5065
1315 Epoch 77/200
1316 18/18 [=====] - ETA: 0s -
      loss: 5.1605e-04 - accuracy: 0.3743
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1317 Epoch 77: val_loss did not improve from 0.00145
1318 18/18 [=====] - 0s 10ms/
    step - loss: 5.1605e-04 - accuracy: 0.3743 -
    val_loss: 0.0015 - val_accuracy: 0.5065
1319 Epoch 78/200
1320 13/18 [=====>.....] - ETA: 0s -
    loss: 6.4022e-04 - accuracy: 0.4154
1321 Epoch 78: val_loss did not improve from 0.00145
1322 18/18 [=====] - 0s 9ms/step
    - loss: 6.2050e-04 - accuracy: 0.4190 - val_loss: 0
    .0021 - val_accuracy: 0.4026
1323 Epoch 79/200
1324 18/18 [=====] - ETA: 0s -
    loss: 5.5254e-04 - accuracy: 0.3966
1325 Epoch 79: val_loss did not improve from 0.00145
1326 18/18 [=====] - 0s 9ms/step
    - loss: 5.5254e-04 - accuracy: 0.3966 - val_loss: 0
    .0036 - val_accuracy: 0.4935
1327 Epoch 80/200
1328 18/18 [=====] - ETA: 0s -
    loss: 5.5005e-04 - accuracy: 0.4246
1329 Epoch 80: val_loss improved from 0.00145 to 0.00120
, saving model to SFI_Stock.h5
1330 18/18 [=====] - 0s 11ms/
    step - loss: 5.5005e-04 - accuracy: 0.4246 -
    val_loss: 0.0012 - val_accuracy: 0.4935
1331 Epoch 81/200
1332 15/18 [=====>....] - ETA: 0s -
    loss: 4.9085e-04 - accuracy: 0.3800
1333 Epoch 81: val_loss did not improve from 0.00120
1334 18/18 [=====] - 0s 11ms/
    step - loss: 4.8404e-04 - accuracy: 0.3855 -
    val_loss: 0.0016 - val_accuracy: 0.4156
1335 Epoch 82/200
1336 11/18 [=====>.....] - ETA: 0s -
    loss: 5.3815e-04 - accuracy: 0.4636
1337 Epoch 82: val_loss did not improve from 0.00120
1338 18/18 [=====] - 0s 9ms/step
    - loss: 4.8570e-04 - accuracy: 0.4358 - val_loss: 0
    .0024 - val_accuracy: 0.4545
1339 Epoch 83/200
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1340 10/18 [=====>.....] - ETA: 0s -
    loss: 5.2433e-04 - accuracy: 0.4500
1341 Epoch 83: val_loss did not improve from 0.00120
1342 18/18 [=====] - 0s 8ms/step
    - loss: 4.7992e-04 - accuracy: 0.4413 - val_loss: 0
    .0032 - val_accuracy: 0.4286
1343 Epoch 84/200
1344 12/18 [=====>.....] - ETA: 0s -
    loss: 4.7119e-04 - accuracy: 0.5000
1345 Epoch 84: val_loss improved from 0.00120 to 0.00112
, saving model to SFI_Stock.h5
1346 18/18 [=====] - 0s 11ms/
    step - loss: 5.3627e-04 - accuracy: 0.4581 -
    val_loss: 0.0011 - val_accuracy: 0.4805
1347 Epoch 85/200
1348 18/18 [=====] - ETA: 0s -
    loss: 5.6473e-04 - accuracy: 0.3966
1349 Epoch 85: val_loss did not improve from 0.00112
1350 18/18 [=====] - 0s 10ms/
    step - loss: 5.6473e-04 - accuracy: 0.3966 -
    val_loss: 0.0015 - val_accuracy: 0.4805
1351 Epoch 86/200
1352 12/18 [=====>.....] - ETA: 0s -
    loss: 4.5821e-04 - accuracy: 0.4250
1353 Epoch 86: val_loss did not improve from 0.00112
1354 18/18 [=====] - 0s 8ms/step
    - loss: 4.7192e-04 - accuracy: 0.4134 - val_loss: 0
    .0023 - val_accuracy: 0.3766
1355 Epoch 87/200
1356 17/18 [=====>..] - ETA: 0s -
    loss: 4.3637e-04 - accuracy: 0.3941
1357 Epoch 87: val_loss improved from 0.00112 to 0.00104
, saving model to SFI_Stock.h5
1358 18/18 [=====] - 0s 12ms/
    step - loss: 4.3500e-04 - accuracy: 0.4078 -
    val_loss: 0.0010 - val_accuracy: 0.4935
1359 Epoch 88/200
1360 11/18 [=====>.....] - ETA: 0s -
    loss: 5.0426e-04 - accuracy: 0.4091
1361 Epoch 88: val_loss did not improve from 0.00104
1362 18/18 [=====] - 0s 10ms/
```

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1362 step - loss: 5.1562e-04 - accuracy: 0.4078 -
    val_loss: 0.0011 - val_accuracy: 0.3377
1363 Epoch 89/200
1364 11/18 [=====>.....] - ETA: 0s -
    loss: 5.7874e-04 - accuracy: 0.4273
1365 Epoch 89: val_loss did not improve from 0.00104
1366 18/18 [=====] - 0s 8ms/step
    - loss: 5.1492e-04 - accuracy: 0.4022 - val_loss: 0
    .0011 - val_accuracy: 0.4545
1367 Epoch 90/200
1368 9/18 [=====>.....] - ETA: 0s -
    loss: 5.8429e-04 - accuracy: 0.3222
1369 Epoch 90: val_loss did not improve from 0.00104
1370 18/18 [=====] - 0s 9ms/step
    - loss: 4.9627e-04 - accuracy: 0.3743 - val_loss: 0
    .0011 - val_accuracy: 0.4026
1371 Epoch 91/200
1372 10/18 [=====>.....] - ETA: 0s -
    loss: 5.1810e-04 - accuracy: 0.4100
1373 Epoch 91: val_loss did not improve from 0.00104
1374 18/18 [=====] - 0s 9ms/step
    - loss: 4.7225e-04 - accuracy: 0.4078 - val_loss: 0
    .0018 - val_accuracy: 0.4026
1375 Epoch 92/200
1376 10/18 [=====>.....] - ETA: 0s -
    loss: 4.0985e-04 - accuracy: 0.4700
1377 Epoch 92: val_loss did not improve from 0.00104
1378 18/18 [=====] - 0s 9ms/step
    - loss: 4.2855e-04 - accuracy: 0.4693 - val_loss: 0
    .0011 - val_accuracy: 0.4286
1379 Epoch 93/200
1380 11/18 [=====>.....] - ETA: 0s -
    loss: 4.5948e-04 - accuracy: 0.3545
1381 Epoch 93: val_loss did not improve from 0.00104
1382 18/18 [=====] - 0s 9ms/step
    - loss: 4.4164e-04 - accuracy: 0.3966 - val_loss: 0
    .0022 - val_accuracy: 0.4935
1383 Epoch 94/200
1384 18/18 [=====] - ETA: 0s -
    loss: 5.2889e-04 - accuracy: 0.3855
1385 Epoch 94: val_loss did not improve from 0.00104
```

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1386 18/18 [=====] - 0s 10ms/
    step - loss: 5.2889e-04 - accuracy: 0.3855 -
    val_loss: 0.0023 - val_accuracy: 0.4675
1387 Epoch 95/200
1388 17/18 [=====>..] - ETA: 0s -
    loss: 5.7920e-04 - accuracy: 0.4000
1389 Epoch 95: val_loss did not improve from 0.00104
1390 18/18 [=====] - 0s 9ms/step
    - loss: 5.6434e-04 - accuracy: 0.4022 - val_loss: 0
    .0034 - val_accuracy: 0.4026
1391 Epoch 96/200
1392 18/18 [=====] - ETA: 0s -
    loss: 5.4920e-04 - accuracy: 0.4413
1393 Epoch 96: val_loss improved from 0.00104 to 0.00102
, saving model to SFI_Stock.h5
1394 18/18 [=====] - 0s 12ms/
    step - loss: 5.4920e-04 - accuracy: 0.4413 -
    val_loss: 0.0010 - val_accuracy: 0.4935
1395 Epoch 97/200
1396 18/18 [=====] - ETA: 0s -
    loss: 5.9844e-04 - accuracy: 0.3966
1397 Epoch 97: val_loss did not improve from 0.00102
1398 18/18 [=====] - 0s 9ms/step
    - loss: 5.9844e-04 - accuracy: 0.3966 - val_loss: 0
    .0017 - val_accuracy: 0.4156
1399 Epoch 98/200
1400 16/18 [=====>....] - ETA: 0s -
    loss: 4.9206e-04 - accuracy: 0.3938
1401 Epoch 98: val_loss did not improve from 0.00102
1402 18/18 [=====] - 0s 11ms/
    step - loss: 4.7712e-04 - accuracy: 0.3911 -
    val_loss: 0.0021 - val_accuracy: 0.4026
1403 Epoch 99/200
1404 17/18 [=====>..] - ETA: 0s -
    loss: 5.2147e-04 - accuracy: 0.4235
1405 Epoch 99: val_loss did not improve from 0.00102
1406 18/18 [=====] - 0s 9ms/step
    - loss: 5.1729e-04 - accuracy: 0.4413 - val_loss: 0
    .0011 - val_accuracy: 0.4156
1407 Epoch 100/200
1408 18/18 [=====] - ETA: 0s -
```

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1408 loss: 4.3446e-04 - accuracy: 0.4525
1409 Epoch 100: val_loss did not improve from 0.00102
1410 18/18 [=====] - 0s 10ms/
    step - loss: 4.3446e-04 - accuracy: 0.4525 -
    val_loss: 0.0031 - val_accuracy: 0.4675
1411 Epoch 101/200
1412 18/18 [=====] - ETA: 0s -
    loss: 5.2970e-04 - accuracy: 0.4525
1413 Epoch 101: val_loss did not improve from 0.00102
1414 18/18 [=====] - 0s 8ms/step
    - loss: 5.2970e-04 - accuracy: 0.4525 - val_loss: 0
    .0021 - val_accuracy: 0.5195
1415 Epoch 102/200
1416 17/18 [=====>..] - ETA: 0s -
    loss: 4.1389e-04 - accuracy: 0.4706
1417 Epoch 102: val_loss improved from 0.00102 to 0.00101
    , saving model to SFI_Stock.h5
1418 18/18 [=====] - 0s 11ms/
    step - loss: 4.3366e-04 - accuracy: 0.4525 -
    val_loss: 0.0010 - val_accuracy: 0.4935
1419 Epoch 103/200
1420 11/18 [=====>.....] - ETA: 0s -
    loss: 3.9725e-04 - accuracy: 0.3909
1421 Epoch 103: val_loss did not improve from 0.00101
1422 18/18 [=====] - 0s 9ms/step
    - loss: 4.1685e-04 - accuracy: 0.4134 - val_loss: 0
    .0012 - val_accuracy: 0.4805
1423 Epoch 104/200
1424 12/18 [=====>.....] - ETA: 0s -
    loss: 4.1247e-04 - accuracy: 0.5000
1425 Epoch 104: val_loss did not improve from 0.00101
1426 18/18 [=====] - 0s 8ms/step
    - loss: 4.7180e-04 - accuracy: 0.4469 - val_loss: 0
    .0015 - val_accuracy: 0.4416
1427 Epoch 105/200
1428 18/18 [=====] - ETA: 0s -
    loss: 4.4075e-04 - accuracy: 0.4134
1429 Epoch 105: val_loss did not improve from 0.00101
1430 18/18 [=====] - 0s 9ms/step
    - loss: 4.4075e-04 - accuracy: 0.4134 - val_loss: 0
    .0011 - val_accuracy: 0.0519
```

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1431 Epoch 106/200
1432 13/18 [=====>.....] - ETA: 0s -
    loss: 4.7470e-04 - accuracy: 0.4154
1433 Epoch 106: val_loss did not improve from 0.00101
1434 18/18 [=====] - 0s 7ms/step
    - loss: 4.5171e-04 - accuracy: 0.4246 - val_loss: 0
    .0050 - val_accuracy: 0.4675
1435 Epoch 107/200
1436 12/18 [=====>.....] - ETA: 0s -
    loss: 4.3529e-04 - accuracy: 0.3750
1437 Epoch 107: val_loss did not improve from 0.00101
1438 18/18 [=====] - 0s 8ms/step
    - loss: 4.4684e-04 - accuracy: 0.4134 - val_loss: 0
    .0010 - val_accuracy: 0.4805
1439 Epoch 108/200
1440 11/18 [=====>.....] - ETA: 0s -
    loss: 4.7635e-04 - accuracy: 0.4091
1441 Epoch 108: val_loss did not improve from 0.00101
1442 18/18 [=====] - 0s 9ms/step
    - loss: 4.3924e-04 - accuracy: 0.4525 - val_loss: 0
    .0026 - val_accuracy: 0.4675
1443 Epoch 109/200
1444 11/18 [=====>.....] - ETA: 0s -
    loss: 3.4628e-04 - accuracy: 0.3909
1445 Epoch 109: val_loss did not improve from 0.00101
1446 18/18 [=====] - 0s 9ms/step
    - loss: 4.0309e-04 - accuracy: 0.3855 - val_loss: 0
    .0011 - val_accuracy: 0.4416
1447 Epoch 110/200
1448 10/18 [=====>.....] - ETA: 0s -
    loss: 4.1821e-04 - accuracy: 0.4900
1449 Epoch 110: val_loss improved from 0.00101 to 0.00101
    , saving model to SFI_Stock.h5
1450 18/18 [=====] - 0s 10ms/
    step - loss: 4.3260e-04 - accuracy: 0.4749 -
    val_loss: 0.0010 - val_accuracy: 0.3896
1451 Epoch 111/200
1452 12/18 [=====>.....] - ETA: 0s -
    loss: 3.8834e-04 - accuracy: 0.3750
1453 Epoch 111: val_loss improved from 0.00101 to 0.00093
    , saving model to SFI_Stock.h5
```

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1454 18/18 [=====] - 0s 11ms/
    step - loss: 3.9847e-04 - accuracy: 0.4022 -
    val_loss: 9.3025e-04 - val_accuracy: 0.4805
1455 Epoch 112/200
1456 18/18 [=====] - ETA: 0s -
    loss: 4.7048e-04 - accuracy: 0.4078
1457 Epoch 112: val_loss did not improve from 0.00093
1458 18/18 [=====] - 0s 9ms/step
    - loss: 4.7048e-04 - accuracy: 0.4078 - val_loss: 0
    .0011 - val_accuracy: 0.3766
1459 Epoch 113/200
1460 10/18 [=====>.....] - ETA: 0s -
    loss: 4.6155e-04 - accuracy: 0.4200
1461 Epoch 113: val_loss did not improve from 0.00093
1462 18/18 [=====] - 0s 8ms/step
    - loss: 4.0364e-04 - accuracy: 0.4358 - val_loss: 9
    .3962e-04 - val_accuracy: 0.4026
1463 Epoch 114/200
1464 11/18 [=====>.....] - ETA: 0s -
    loss: 5.9361e-04 - accuracy: 0.4182
1465 Epoch 114: val_loss did not improve from 0.00093
1466 18/18 [=====] - 0s 9ms/step
    - loss: 5.0221e-04 - accuracy: 0.4246 - val_loss: 0
    .0014 - val_accuracy: 0.4416
1467 Epoch 115/200
1468 9/18 [=====>.....] - ETA: 0s -
    loss: 4.8491e-04 - accuracy: 0.4333
1469 Epoch 115: val_loss improved from 0.00093 to 0.00090
    , saving model to SFI_Stock.h5
1470 18/18 [=====] - 0s 11ms/
    step - loss: 4.7732e-04 - accuracy: 0.4190 -
    val_loss: 9.0447e-04 - val_accuracy: 0.4675
1471 Epoch 116/200
1472 18/18 [=====] - ETA: 0s -
    loss: 4.1857e-04 - accuracy: 0.4022
1473 Epoch 116: val_loss did not improve from 0.00090
1474 18/18 [=====] - 0s 11ms/
    step - loss: 4.1857e-04 - accuracy: 0.4022 -
    val_loss: 0.0014 - val_accuracy: 0.3247
1475 Epoch 117/200
1476 18/18 [=====] - ETA: 0s -
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1476 loss: 4.1740e-04 - accuracy: 0.4358
1477 Epoch 117: val_loss did not improve from 0.00090
1478 18/18 [=====] - 0s 9ms/step
    - loss: 4.1740e-04 - accuracy: 0.4358 - val_loss: 0
    .0010 - val_accuracy: 0.5195
1479 Epoch 118/200
1480 18/18 [=====] - ETA: 0s -
    loss: 4.1786e-04 - accuracy: 0.4190
1481 Epoch 118: val_loss did not improve from 0.00090
1482 18/18 [=====] - 0s 9ms/step
    - loss: 4.1786e-04 - accuracy: 0.4190 - val_loss: 9
    .4830e-04 - val_accuracy: 0.4935
1483 Epoch 119/200
1484 10/18 [=====>.....] - ETA: 0s -
    loss: 5.1039e-04 - accuracy: 0.4600
1485 Epoch 119: val_loss improved from 0.00090 to 0.00090
    , saving model to SFI_Stock.h5
1486 18/18 [=====] - 0s 10ms/
    step - loss: 4.8295e-04 - accuracy: 0.4246 -
    val_loss: 8.9739e-04 - val_accuracy: 0.4805
1487 Epoch 120/200
1488 16/18 [=====>....] - ETA: 0s -
    loss: 3.7397e-04 - accuracy: 0.4375
1489 Epoch 120: val_loss did not improve from 0.00090
1490 18/18 [=====] - 0s 10ms/
    step - loss: 3.9519e-04 - accuracy: 0.4358 -
    val_loss: 0.0016 - val_accuracy: 0.4026
1491 Epoch 121/200
1492 17/18 [=====>..] - ETA: 0s -
    loss: 3.8504e-04 - accuracy: 0.4235
1493 Epoch 121: val_loss did not improve from 0.00090
1494 18/18 [=====] - 0s 9ms/step
    - loss: 3.8441e-04 - accuracy: 0.4358 - val_loss: 9
    .2629e-04 - val_accuracy: 0.5195
1495 Epoch 122/200
1496 18/18 [=====] - ETA: 0s -
    loss: 4.3771e-04 - accuracy: 0.3966
1497 Epoch 122: val_loss did not improve from 0.00090
1498 18/18 [=====] - 0s 9ms/step
    - loss: 4.3771e-04 - accuracy: 0.3966 - val_loss: 0
    .0011 - val_accuracy: 0.4026
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1499 Epoch 123/200
1500 10/18 [=====>.....] - ETA: 0s -
    loss: 4.2169e-04 - accuracy: 0.4000
1501 Epoch 123: val_loss did not improve from 0.00090
1502 18/18 [=====] - 0s 9ms/step
    - loss: 4.1742e-04 - accuracy: 0.3966 - val_loss: 0
    .0011 - val_accuracy: 0.4675
1503 Epoch 124/200
1504 10/18 [=====>.....] - ETA: 0s -
    loss: 5.1935e-04 - accuracy: 0.3700
1505 Epoch 124: val_loss did not improve from 0.00090
1506 18/18 [=====] - 0s 8ms/step
    - loss: 4.3433e-04 - accuracy: 0.4190 - val_loss: 9
    .2040e-04 - val_accuracy: 0.5065
1507 Epoch 125/200
1508 18/18 [=====] - ETA: 0s -
    loss: 4.0630e-04 - accuracy: 0.4302
1509 Epoch 125: val_loss did not improve from 0.00090
1510 18/18 [=====] - 0s 9ms/step
    - loss: 4.0630e-04 - accuracy: 0.4302 - val_loss: 0
    .0012 - val_accuracy: 0.3766
1511 Epoch 126/200
1512 10/18 [=====>.....] - ETA: 0s -
    loss: 4.6393e-04 - accuracy: 0.4500
1513 Epoch 126: val_loss did not improve from 0.00090
1514 18/18 [=====] - 0s 9ms/step
    - loss: 4.2009e-04 - accuracy: 0.4469 - val_loss: 9
    .3157e-04 - val_accuracy: 0.4675
1515 Epoch 127/200
1516 10/18 [=====>.....] - ETA: 0s -
    loss: 2.9156e-04 - accuracy: 0.4300
1517 Epoch 127: val_loss improved from 0.00090 to 0.00088
    , saving model to SFI_Stock.h5
1518 18/18 [=====] - 0s 10ms/
    step - loss: 3.3841e-04 - accuracy: 0.4413 -
    val_loss: 8.8257e-04 - val_accuracy: 0.4935
1519 Epoch 128/200
1520 18/18 [=====] - ETA: 0s -
    loss: 3.9040e-04 - accuracy: 0.4078
1521 Epoch 128: val_loss did not improve from 0.00088
1522 18/18 [=====] - 0s 10ms/
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1522 step - loss: 3.9040e-04 - accuracy: 0.4078 -
    val_loss: 0.0024 - val_accuracy: 0.4935
1523 Epoch 129/200
1524 18/18 [=====] - ETA: 0s -
    loss: 3.6228e-04 - accuracy: 0.3966
1525 Epoch 129: val_loss did not improve from 0.00088
1526 18/18 [=====] - 0s 9ms/step
    - loss: 3.6228e-04 - accuracy: 0.3966 - val_loss: 0
    .0011 - val_accuracy: 0.4935
1527 Epoch 130/200
1528 10/18 [=====>.....] - ETA: 0s -
    loss: 4.3449e-04 - accuracy: 0.4500
1529 Epoch 130: val_loss did not improve from 0.00088
1530 18/18 [=====] - 0s 9ms/step
    - loss: 4.1753e-04 - accuracy: 0.4413 - val_loss: 0
    .0012 - val_accuracy: 0.4545
1531 Epoch 131/200
1532 15/18 [=====>....] - ETA: 0s -
    loss: 3.6130e-04 - accuracy: 0.4067
1533 Epoch 131: val_loss improved from 0.00088 to 0.00084
, saving model to SFI_Stock.h5
1534 18/18 [=====] - 0s 14ms/
    step - loss: 3.8415e-04 - accuracy: 0.4134 -
    val_loss: 8.3895e-04 - val_accuracy: 0.4805
1535 Epoch 132/200
1536 13/18 [=====>.....] - ETA: 0s -
    loss: 3.5381e-04 - accuracy: 0.4308
1537 Epoch 132: val_loss did not improve from 0.00084
1538 18/18 [=====] - 0s 13ms/
    step - loss: 3.4755e-04 - accuracy: 0.4525 -
    val_loss: 0.0012 - val_accuracy: 0.3766
1539 Epoch 133/200
1540 14/18 [=====>....] - ETA: 0s -
    loss: 3.9306e-04 - accuracy: 0.4429
1541 Epoch 133: val_loss did not improve from 0.00084
1542 18/18 [=====] - 0s 13ms/
    step - loss: 4.5304e-04 - accuracy: 0.4525 -
    val_loss: 8.9760e-04 - val_accuracy: 0.4805
1543 Epoch 134/200
1544 15/18 [=====>....] - ETA: 0s -
    loss: 3.6910e-04 - accuracy: 0.4267
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1545 Epoch 134: val_loss did not improve from 0.00084
1546 18/18 [=====] - 0s 10ms/
    step - loss: 3.7930e-04 - accuracy: 0.4302 -
    val_loss: 0.0019 - val_accuracy: 0.4675
1547 Epoch 135/200
1548 15/18 [=====>....] - ETA: 0s -
    loss: 5.5918e-04 - accuracy: 0.4600
1549 Epoch 135: val_loss did not improve from 0.00084
1550 18/18 [=====] - 0s 10ms/
    step - loss: 5.2297e-04 - accuracy: 0.4749 -
    val_loss: 0.0013 - val_accuracy: 0.4545
1551 Epoch 136/200
1552 16/18 [=====>....] - ETA: 0s -
    loss: 3.7767e-04 - accuracy: 0.4500
1553 Epoch 136: val_loss improved from 0.00084 to 0.00083
, saving model to SFI_Stock.h5
1554 18/18 [=====] - 0s 13ms/
    step - loss: 3.9388e-04 - accuracy: 0.4358 -
    val_loss: 8.3012e-04 - val_accuracy: 0.5065
1555 Epoch 137/200
1556 10/18 [=====>.....] - ETA: 0s -
    loss: 5.2196e-04 - accuracy: 0.4800
1557 Epoch 137: val_loss did not improve from 0.00083
1558 18/18 [=====] - 0s 9ms/step
    - loss: 4.6785e-04 - accuracy: 0.4022 - val_loss: 0
.0015 - val_accuracy: 0.4805
1559 Epoch 138/200
1560 16/18 [=====>....] - ETA: 0s -
    loss: 3.5579e-04 - accuracy: 0.4812
1561 Epoch 138: val_loss did not improve from 0.00083
1562 18/18 [=====] - 0s 10ms/
    step - loss: 3.9032e-04 - accuracy: 0.4581 -
    val_loss: 9.3404e-04 - val_accuracy: 0.4026
1563 Epoch 139/200
1564 17/18 [=====>..] - ETA: 0s -
    loss: 3.0959e-04 - accuracy: 0.4471
1565 Epoch 139: val_loss did not improve from 0.00083
1566 18/18 [=====] - 0s 10ms/
    step - loss: 3.5582e-04 - accuracy: 0.4525 -
    val_loss: 0.0020 - val_accuracy: 0.5065
1567 Epoch 140/200
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1568 17/18 [=====>..] - ETA: 0s -
    loss: 3.3541e-04 - accuracy: 0.4294
1569 Epoch 140: val_loss did not improve from 0.00083
1570 18/18 [=====] - 0s 10ms/
    step - loss: 3.3673e-04 - accuracy: 0.4302 -
    val_loss: 9.3279e-04 - val_accuracy: 0.4286
1571 Epoch 141/200
1572 17/18 [=====>..] - ETA: 0s -
    loss: 3.2355e-04 - accuracy: 0.4647
1573 Epoch 141: val_loss improved from 0.00083 to 0.00080
, saving model to SFI_Stock.h5
1574 18/18 [=====] - 0s 13ms/
    step - loss: 3.2349e-04 - accuracy: 0.4525 -
    val_loss: 8.0445e-04 - val_accuracy: 0.4805
1575 Epoch 142/200
1576 18/18 [=====] - ETA: 0s -
    loss: 4.1395e-04 - accuracy: 0.4246
1577 Epoch 142: val_loss did not improve from 0.00080
1578 18/18 [=====] - 0s 16ms/
    step - loss: 4.1395e-04 - accuracy: 0.4246 -
    val_loss: 9.5510e-04 - val_accuracy: 0.3506
1579 Epoch 143/200
1580 17/18 [=====>..] - ETA: 0s -
    loss: 3.1211e-04 - accuracy: 0.3941
1581 Epoch 143: val_loss did not improve from 0.00080
1582 18/18 [=====] - 0s 15ms/
    step - loss: 3.3394e-04 - accuracy: 0.3743 -
    val_loss: 9.2315e-04 - val_accuracy: 0.4026
1583 Epoch 144/200
1584 15/18 [=====>.....] - ETA: 0s -
    loss: 3.6639e-04 - accuracy: 0.4267
1585 Epoch 144: val_loss did not improve from 0.00080
1586 18/18 [=====] - 0s 14ms/
    step - loss: 3.6539e-04 - accuracy: 0.4358 -
    val_loss: 0.0012 - val_accuracy: 0.4935
1587 Epoch 145/200
1588 13/18 [=====>.....] - ETA: 0s -
    loss: 3.1405e-04 - accuracy: 0.4000
1589 Epoch 145: val_loss did not improve from 0.00080
1590 18/18 [=====] - 0s 12ms/
    step - loss: 3.6956e-04 - accuracy: 0.3966 -
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1590 val_loss: 0.0012 - val_accuracy: 0.4545
1591 Epoch 146/200
1592 17/18 [=====>..] - ETA: 0s -
    loss: 3.6318e-04 - accuracy: 0.4353
1593 Epoch 146: val_loss did not improve from 0.00080
1594 18/18 [=====] - 0s 9ms/step
    - loss: 3.4912e-04 - accuracy: 0.4469 - val_loss: 9
    .9760e-04 - val_accuracy: 0.4545
1595 Epoch 147/200
1596 10/18 [=====>.....] - ETA: 0s -
    loss: 3.8159e-04 - accuracy: 0.3800
1597 Epoch 147: val_loss did not improve from 0.00080
1598 18/18 [=====] - 0s 10ms/
    step - loss: 4.0563e-04 - accuracy: 0.4134 -
    val_loss: 8.9382e-04 - val_accuracy: 0.4545
1599 Epoch 148/200
1600 12/18 [=====>.....] - ETA: 0s -
    loss: 4.1455e-04 - accuracy: 0.4167
1601 Epoch 148: val_loss did not improve from 0.00080
1602 18/18 [=====] - 0s 12ms/
    step - loss: 3.9317e-04 - accuracy: 0.4581 -
    val_loss: 9.3387e-04 - val_accuracy: 0.5065
1603 Epoch 149/200
1604 16/18 [=====>....] - ETA: 0s -
    loss: 3.6016e-04 - accuracy: 0.3812
1605 Epoch 149: val_loss did not improve from 0.00080
1606 18/18 [=====] - 0s 11ms/
    step - loss: 3.5209e-04 - accuracy: 0.3966 -
    val_loss: 8.8339e-04 - val_accuracy: 0.5065
1607 Epoch 150/200
1608 16/18 [=====>....] - ETA: 0s -
    loss: 3.6807e-04 - accuracy: 0.4250
1609 Epoch 150: val_loss did not improve from 0.00080
1610 18/18 [=====] - 0s 10ms/
    step - loss: 3.6296e-04 - accuracy: 0.4358 -
    val_loss: 0.0026 - val_accuracy: 0.4935
1611 Epoch 151/200
1612 18/18 [=====] - ETA: 0s -
    loss: 3.1965e-04 - accuracy: 0.4134
1613 Epoch 151: val_loss did not improve from 0.00080
1614 18/18 [=====] - 0s 9ms/step
```

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1614 - loss: 3.1965e-04 - accuracy: 0.4134 - val_loss: 0
      .0011 - val_accuracy: 0.4545
1615 Epoch 152/200
1616 10/18 [=====>.....] - ETA: 0s -
      loss: 3.3935e-04 - accuracy: 0.3900
1617 Epoch 152: val_loss did not improve from 0.00080
1618 18/18 [=====] - 0s 9ms/step
      - loss: 3.7140e-04 - accuracy: 0.4358 - val_loss: 8
      .4335e-04 - val_accuracy: 0.4026
1619 Epoch 153/200
1620 10/18 [=====>.....] - ETA: 0s -
      loss: 3.0894e-04 - accuracy: 0.4200
1621 Epoch 153: val_loss did not improve from 0.00080
1622 18/18 [=====] - 0s 9ms/step
      - loss: 3.6543e-04 - accuracy: 0.4358 - val_loss: 0
      .0011 - val_accuracy: 0.4026
1623 Epoch 154/200
1624 18/18 [=====] - ETA: 0s -
      loss: 3.8014e-04 - accuracy: 0.4749
1625 Epoch 154: val_loss did not improve from 0.00080
1626 18/18 [=====] - 0s 9ms/step
      - loss: 3.8014e-04 - accuracy: 0.4749 - val_loss: 8
      .4095e-04 - val_accuracy: 0.5195
1627 Epoch 155/200
1628 18/18 [=====] - ETA: 0s -
      loss: 3.5888e-04 - accuracy: 0.4358
1629 Epoch 155: val_loss did not improve from 0.00080
1630 18/18 [=====] - 0s 9ms/step
      - loss: 3.5888e-04 - accuracy: 0.4358 - val_loss: 0
      .0013 - val_accuracy: 0.3766
1631 Epoch 156/200
1632 10/18 [=====>.....] - ETA: 0s -
      loss: 3.3683e-04 - accuracy: 0.4400
1633 Epoch 156: val_loss did not improve from 0.00080
1634 18/18 [=====] - 0s 9ms/step
      - loss: 3.5237e-04 - accuracy: 0.4134 - val_loss: 8
      .2669e-04 - val_accuracy: 0.4935
1635 Epoch 157/200
1636 10/18 [=====>.....] - ETA: 0s -
      loss: 3.6067e-04 - accuracy: 0.4700
1637 Epoch 157: val_loss did not improve from 0.00080
```

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1638 18/18 [=====] - 0s 9ms/step
    - loss: 3.5598e-04 - accuracy: 0.4358 - val_loss: 8
    .0650e-04 - val_accuracy: 0.4416
1639 Epoch 158/200
1640 18/18 [=====] - ETA: 0s -
    loss: 3.4178e-04 - accuracy: 0.4358
1641 Epoch 158: val_loss did not improve from 0.00080
1642 18/18 [=====] - 0s 9ms/step
    - loss: 3.4178e-04 - accuracy: 0.4358 - val_loss: 9
    .1123e-04 - val_accuracy: 0.3506
1643 Epoch 159/200
1644 10/18 [=====>.....] - ETA: 0s -
    loss: 3.6044e-04 - accuracy: 0.4300
1645 Epoch 159: val_loss did not improve from 0.00080
1646 18/18 [=====] - 0s 8ms/step
    - loss: 3.7896e-04 - accuracy: 0.4358 - val_loss: 0
    .0019 - val_accuracy: 0.4026
1647 Epoch 160/200
1648 10/18 [=====>.....] - ETA: 0s -
    loss: 4.4449e-04 - accuracy: 0.4900
1649 Epoch 160: val_loss did not improve from 0.00080
1650 18/18 [=====] - 0s 8ms/step
    - loss: 3.9276e-04 - accuracy: 0.4358 - val_loss: 8
    .6014e-04 - val_accuracy: 0.4026
1651 Epoch 161/200
1652 18/18 [=====] - ETA: 0s -
    loss: 3.4632e-04 - accuracy: 0.4413
1653 Epoch 161: val_loss did not improve from 0.00080
1654 18/18 [=====] - 0s 9ms/step
    - loss: 3.4632e-04 - accuracy: 0.4413 - val_loss: 8
    .4688e-04 - val_accuracy: 0.4935
1655 Epoch 162/200
1656 11/18 [=====>.....] - ETA: 0s -
    loss: 3.5438e-04 - accuracy: 0.4364
1657 Epoch 162: val_loss improved from 0.00080 to 0.00076
    , saving model to SFI_Stock.h5
1658 18/18 [=====] - 0s 21ms/
    step - loss: 3.6833e-04 - accuracy: 0.4302 -
    val_loss: 7.6076e-04 - val_accuracy: 0.4805
1659 Epoch 163/200
1660 10/18 [=====>.....] - ETA: 0s -
```

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1660 loss: 3.5000e-04 - accuracy: 0.4500
1661 Epoch 163: val_loss improved from 0.00076 to 0.00073
, saving model to SFI_Stock.h5
1662 18/18 [=====] - 0s 17ms/
step - loss: 3.5879e-04 - accuracy: 0.4637 -
val_loss: 7.3080e-04 - val_accuracy: 0.4026
1663 Epoch 164/200
1664 10/18 [=====>.....] - ETA: 0s -
loss: 3.6043e-04 - accuracy: 0.5400
1665 Epoch 164: val_loss did not improve from 0.00073
1666 18/18 [=====] - 0s 9ms/step
- loss: 3.4906e-04 - accuracy: 0.4693 - val_loss: 7
.8813e-04 - val_accuracy: 0.5195
1667 Epoch 165/200
1668 18/18 [=====] - ETA: 0s -
loss: 3.4988e-04 - accuracy: 0.4302
1669 Epoch 165: val_loss did not improve from 0.00073
1670 18/18 [=====] - 0s 9ms/step
- loss: 3.4988e-04 - accuracy: 0.4302 - val_loss: 8
.9126e-04 - val_accuracy: 0.4675
1671 Epoch 166/200
1672 10/18 [=====>.....] - ETA: 0s -
loss: 4.1445e-04 - accuracy: 0.4500
1673 Epoch 166: val_loss did not improve from 0.00073
1674 18/18 [=====] - 0s 9ms/step
- loss: 3.7982e-04 - accuracy: 0.4525 - val_loss: 8
.9262e-04 - val_accuracy: 0.4026
1675 Epoch 167/200
1676 18/18 [=====] - ETA: 0s -
loss: 3.3038e-04 - accuracy: 0.4022
1677 Epoch 167: val_loss did not improve from 0.00073
1678 18/18 [=====] - 0s 9ms/step
- loss: 3.3038e-04 - accuracy: 0.4022 - val_loss: 0
.0021 - val_accuracy: 0.5065
1679 Epoch 168/200
1680 18/18 [=====] - ETA: 0s -
loss: 3.0655e-04 - accuracy: 0.4525
1681 Epoch 168: val_loss did not improve from 0.00073
1682 18/18 [=====] - 0s 9ms/step
- loss: 3.0655e-04 - accuracy: 0.4525 - val_loss: 0
.0015 - val_accuracy: 0.4935
```

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1683 Epoch 169/200
1684 10/18 [=====>.....] - ETA: 0s -
    loss: 3.0175e-04 - accuracy: 0.4500
1685 Epoch 169: val_loss improved from 0.00073 to 0.00072
    , saving model to SFI_Stock.h5
1686 18/18 [=====] - 0s 10ms/
    step - loss: 3.0527e-04 - accuracy: 0.4413 -
    val_loss: 7.2369e-04 - val_accuracy: 0.4545
1687 Epoch 170/200
1688 9/18 [=====>.....] - ETA: 0s -
    loss: 2.4741e-04 - accuracy: 0.4222
1689 Epoch 170: val_loss did not improve from 0.00072
1690 18/18 [=====] - 0s 8ms/step
    - loss: 3.2782e-04 - accuracy: 0.4525 - val_loss: 7
    .6893e-04 - val_accuracy: 0.4805
1691 Epoch 171/200
1692 18/18 [=====] - ETA: 0s -
    loss: 3.2947e-04 - accuracy: 0.4358
1693 Epoch 171: val_loss improved from 0.00072 to 0.00071
    , saving model to SFI_Stock.h5
1694 18/18 [=====] - 0s 10ms/
    step - loss: 3.2947e-04 - accuracy: 0.4358 -
    val_loss: 7.0576e-04 - val_accuracy: 0.5065
1695 Epoch 172/200
1696 10/18 [=====>.....] - ETA: 0s -
    loss: 3.2261e-04 - accuracy: 0.5000
1697 Epoch 172: val_loss did not improve from 0.00071
1698 18/18 [=====] - 0s 8ms/step
    - loss: 3.5846e-04 - accuracy: 0.4749 - val_loss: 0
    .0014 - val_accuracy: 0.4545
1699 Epoch 173/200
1700 10/18 [=====>.....] - ETA: 0s -
    loss: 3.8178e-04 - accuracy: 0.4800
1701 Epoch 173: val_loss did not improve from 0.00071
1702 18/18 [=====] - 0s 8ms/step
    - loss: 3.5235e-04 - accuracy: 0.4525 - val_loss: 7
    .4845e-04 - val_accuracy: 0.4026
1703 Epoch 174/200
1704 11/18 [=====>.....] - ETA: 0s -
    loss: 3.0273e-04 - accuracy: 0.4273
1705 Epoch 174: val_loss did not improve from 0.00071
```

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1706 18/18 [=====] - 0s 9ms/step
    - loss: 3.6452e-04 - accuracy: 0.4525 - val_loss: 7
    .6417e-04 - val_accuracy: 0.4545
1707 Epoch 175/200
1708 10/18 [=====>.....] - ETA: 0s -
    loss: 2.8203e-04 - accuracy: 0.4500
1709 Epoch 175: val_loss did not improve from 0.00071
1710 18/18 [=====] - 0s 9ms/step
    - loss: 3.1157e-04 - accuracy: 0.4469 - val_loss: 0
    .0010 - val_accuracy: 0.5065
1711 Epoch 176/200
1712 17/18 [=====>..] - ETA: 0s -
    loss: 3.6425e-04 - accuracy: 0.4588
1713 Epoch 176: val_loss did not improve from 0.00071
1714 18/18 [=====] - 0s 10ms/
    step - loss: 3.7868e-04 - accuracy: 0.4581 -
    val_loss: 8.9495e-04 - val_accuracy: 0.4416
1715 Epoch 177/200
1716 18/18 [=====] - ETA: 0s -
    loss: 3.3767e-04 - accuracy: 0.4525
1717 Epoch 177: val_loss did not improve from 0.00071
1718 18/18 [=====] - 0s 9ms/step
    - loss: 3.3767e-04 - accuracy: 0.4525 - val_loss: 8
    .0748e-04 - val_accuracy: 0.4416
1719 Epoch 178/200
1720 16/18 [=====>....] - ETA: 0s -
    loss: 3.6766e-04 - accuracy: 0.4812
1721 Epoch 178: val_loss did not improve from 0.00071
1722 18/18 [=====] - 0s 11ms/
    step - loss: 3.7550e-04 - accuracy: 0.4860 -
    val_loss: 0.0021 - val_accuracy: 0.4935
1723 Epoch 179/200
1724 18/18 [=====] - ETA: 0s -
    loss: 3.1074e-04 - accuracy: 0.4302
1725 Epoch 179: val_loss did not improve from 0.00071
1726 18/18 [=====] - 0s 10ms/
    step - loss: 3.1074e-04 - accuracy: 0.4302 -
    val_loss: 8.1553e-04 - val_accuracy: 0.5065
1727 Epoch 180/200
1728 10/18 [=====>.....] - ETA: 0s -
    loss: 3.5175e-04 - accuracy: 0.3800
```

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1729 Epoch 180: val_loss did not improve from 0.00071
1730 18/18 [=====] - 0s 9ms/step
    - loss: 3.1474e-04 - accuracy: 0.3911 - val_loss: 0
    .0017 - val_accuracy: 0.4805
1731 Epoch 181/200
1732 18/18 [=====] - ETA: 0s -
    loss: 3.3482e-04 - accuracy: 0.4972
1733 Epoch 181: val_loss did not improve from 0.00071
1734 18/18 [=====] - 0s 9ms/step
    - loss: 3.3482e-04 - accuracy: 0.4972 - val_loss: 7
    .1836e-04 - val_accuracy: 0.4935
1735 Epoch 182/200
1736 10/18 [=====>.....] - ETA: 0s -
    loss: 3.6717e-04 - accuracy: 0.3800
1737 Epoch 182: val_loss improved from 0.00071 to 0.00068
, saving model to SFI_Stock.h5
1738 18/18 [=====] - 0s 10ms/
    step - loss: 4.2471e-04 - accuracy: 0.4302 -
    val_loss: 6.7976e-04 - val_accuracy: 0.5065
1739 Epoch 183/200
1740 10/18 [=====>.....] - ETA: 0s -
    loss: 3.6480e-04 - accuracy: 0.4100
1741 Epoch 183: val_loss did not improve from 0.00068
1742 18/18 [=====] - 0s 8ms/step
    - loss: 3.5458e-04 - accuracy: 0.4190 - val_loss: 7
    .4493e-04 - val_accuracy: 0.4416
1743 Epoch 184/200
1744 15/18 [=====>....] - ETA: 0s -
    loss: 4.1119e-04 - accuracy: 0.4600
1745 Epoch 184: val_loss did not improve from 0.00068
1746 18/18 [=====] - 0s 11ms/
    step - loss: 3.9889e-04 - accuracy: 0.4413 -
    val_loss: 0.0015 - val_accuracy: 0.4545
1747 Epoch 185/200
1748 17/18 [=====>..] - ETA: 0s -
    loss: 3.7913e-04 - accuracy: 0.4000
1749 Epoch 185: val_loss did not improve from 0.00068
1750 18/18 [=====] - 0s 9ms/step
    - loss: 3.9714e-04 - accuracy: 0.4022 - val_loss: 0
    .0010 - val_accuracy: 0.4675
1751 Epoch 186/200
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1752 10/18 [=====>.....] - ETA: 0s -
    loss: 4.1744e-04 - accuracy: 0.4500
1753 Epoch 186: val_loss did not improve from 0.00068
1754 18/18 [=====] - 0s 8ms/step
    - loss: 3.9191e-04 - accuracy: 0.4246 - val_loss: 0
    .0018 - val_accuracy: 0.4805
1755 Epoch 187/200
1756 17/18 [=====>..] - ETA: 0s -
    loss: 3.2949e-04 - accuracy: 0.4765
1757 Epoch 187: val_loss did not improve from 0.00068
1758 18/18 [=====] - 0s 9ms/step
    - loss: 3.4098e-04 - accuracy: 0.4749 - val_loss: 7
    .0622e-04 - val_accuracy: 0.5065
1759 Epoch 188/200
1760 10/18 [=====>.....] - ETA: 0s -
    loss: 3.1526e-04 - accuracy: 0.4900
1761 Epoch 188: val_loss did not improve from 0.00068
1762 18/18 [=====] - 0s 9ms/step
    - loss: 2.9624e-04 - accuracy: 0.4469 - val_loss: 0
    .0015 - val_accuracy: 0.4416
1763 Epoch 189/200
1764 10/18 [=====>.....] - ETA: 0s -
    loss: 2.7219e-04 - accuracy: 0.4500
1765 Epoch 189: val_loss did not improve from 0.00068
1766 18/18 [=====] - 0s 8ms/step
    - loss: 3.5019e-04 - accuracy: 0.4581 - val_loss: 8
    .9578e-04 - val_accuracy: 0.4026
1767 Epoch 190/200
1768 10/18 [=====>.....] - ETA: 0s -
    loss: 2.7444e-04 - accuracy: 0.5100
1769 Epoch 190: val_loss did not improve from 0.00068
1770 18/18 [=====] - 0s 8ms/step
    - loss: 3.1292e-04 - accuracy: 0.4749 - val_loss: 0
    .0017 - val_accuracy: 0.4416
1771 Epoch 191/200
1772 10/18 [=====>.....] - ETA: 0s -
    loss: 3.4190e-04 - accuracy: 0.5100
1773 Epoch 191: val_loss did not improve from 0.00068
1774 18/18 [=====] - 0s 9ms/step
    - loss: 3.3417e-04 - accuracy: 0.4860 - val_loss: 7
    .0431e-04 - val_accuracy: 0.4935
```

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1775 Epoch 192/200
1776 10/18 [=====>.....] - ETA: 0s -
    loss: 2.7834e-04 - accuracy: 0.4700
1777 Epoch 192: val_loss did not improve from 0.00068
1778 18/18 [=====] - 0s 8ms/step
    - loss: 3.0105e-04 - accuracy: 0.4413 - val_loss: 8
    .5306e-04 - val_accuracy: 0.5195
1779 Epoch 193/200
1780 10/18 [=====>.....] - ETA: 0s -
    loss: 2.7478e-04 - accuracy: 0.3900
1781 Epoch 193: val_loss did not improve from 0.00068
1782 18/18 [=====] - 0s 8ms/step
    - loss: 2.7455e-04 - accuracy: 0.4078 - val_loss: 0
    .0013 - val_accuracy: 0.4026
1783 Epoch 194/200
1784 18/18 [=====] - ETA: 0s -
    loss: 3.4960e-04 - accuracy: 0.4749
1785 Epoch 194: val_loss did not improve from 0.00068
1786 18/18 [=====] - 0s 9ms/step
    - loss: 3.4960e-04 - accuracy: 0.4749 - val_loss: 0
    .0021 - val_accuracy: 0.5065
1787 Epoch 195/200
1788 10/18 [=====>.....] - ETA: 0s -
    loss: 3.3639e-04 - accuracy: 0.4500
1789 Epoch 195: val_loss did not improve from 0.00068
1790 18/18 [=====] - 0s 8ms/step
    - loss: 2.9939e-04 - accuracy: 0.4637 - val_loss: 7
    .1879e-04 - val_accuracy: 0.4416
1791 Epoch 196/200
1792 10/18 [=====>.....] - ETA: 0s -
    loss: 3.0605e-04 - accuracy: 0.4000
1793 Epoch 196: val_loss did not improve from 0.00068
1794 18/18 [=====] - 0s 9ms/step
    - loss: 3.0426e-04 - accuracy: 0.4246 - val_loss: 7
    .1288e-04 - val_accuracy: 0.4026
1795 Epoch 197/200
1796 17/18 [=====>..] - ETA: 0s -
    loss: 2.7646e-04 - accuracy: 0.4235
1797 Epoch 197: val_loss did not improve from 0.00068
1798 18/18 [=====] - 0s 10ms/
    step - loss: 2.9180e-04 - accuracy: 0.4246 -
```

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1798 val_loss: 7.4441e-04 - val_accuracy: 0.4416
1799 Epoch 198/200
1800 10/18 [=====>.....] - ETA: 0s -
    loss: 3.0156e-04 - accuracy: 0.3500
1801 Epoch 198: val_loss improved from 0.00068 to 0.00065
, saving model to SFI_Stock.h5
1802 18/18 [=====] - 0s 10ms/
step - loss: 2.9432e-04 - accuracy: 0.3799 -
val_loss: 6.5217e-04 - val_accuracy: 0.5065
1803 Epoch 199/200
1804 10/18 [=====>.....] - ETA: 0s -
    loss: 3.3288e-04 - accuracy: 0.4300
1805 Epoch 199: val_loss did not improve from 0.00065
1806 18/18 [=====] - 0s 8ms/step
- loss: 3.3182e-04 - accuracy: 0.4190 - val_loss: 0
.0010 - val_accuracy: 0.3896
1807 Epoch 200/200
1808 17/18 [=====>..] - ETA: 0s -
    loss: 3.0447e-04 - accuracy: 0.4059
1809 Epoch 200: val_loss did not improve from 0.00065
1810 18/18 [=====] - 0s 10ms/
step - loss: 3.0369e-04 - accuracy: 0.4190 -
val_loss: 9.1780e-04 - val_accuracy: 0.4545
1811 Epoch 1/200
1812 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0219 - accuracy: 0.0091
1813 Epoch 1: val_loss improved from inf to 0.07586,
saving model to PET_Stock.h5
1814 18/18 [=====] - 5s 64ms/
step - loss: 0.0202 - accuracy: 0.0112 - val_loss: 0
.0759 - val_accuracy: 0.0519
1815 Epoch 2/200
1816 11/18 [=====>.....] - ETA: 0s -
    loss: 0.0145 - accuracy: 0.1545
1817 Epoch 2: val_loss improved from 0.07586 to 0.06542,
saving model to PET_Stock.h5
1818 18/18 [=====] - 0s 9ms/step
- loss: 0.0142 - accuracy: 0.2514 - val_loss: 0.
0654 - val_accuracy: 0.3247
1819 Epoch 3/200
1820 11/18 [=====>.....] - ETA: 0s -
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1820 loss: 0.0116 - accuracy: 0.2727
1821 Epoch 3: val_loss improved from 0.06542 to 0.03310,
saving model to PET_Stock.h5
1822 18/18 [=====] - 0s 10ms/
step - loss: 0.0102 - accuracy: 0.2067 - val_loss: 0
.0331 - val_accuracy: 0.1948
1823 Epoch 4/200
1824 10/18 [=====>.....] - ETA: 0s -
loss: 0.0050 - accuracy: 0.0900
1825 Epoch 4: val_loss improved from 0.03310 to 0.00495,
saving model to PET_Stock.h5
1826 18/18 [=====] - 0s 11ms/
step - loss: 0.0036 - accuracy: 0.2458 - val_loss: 0
.0050 - val_accuracy: 0.0649
1827 Epoch 5/200
1828 10/18 [=====>.....] - ETA: 0s -
loss: 0.0015 - accuracy: 0.5000
1829 Epoch 5: val_loss improved from 0.00495 to 0.00135,
saving model to PET_Stock.h5
1830 18/18 [=====] - 0s 10ms/
step - loss: 0.0013 - accuracy: 0.3966 - val_loss: 0
.0013 - val_accuracy: 0.3247
1831 Epoch 6/200
1832 11/18 [=====>.....] - ETA: 0s -
loss: 8.9207e-04 - accuracy: 0.2909
1833 Epoch 6: val_loss improved from 0.00135 to 0.00083,
saving model to PET_Stock.h5
1834 18/18 [=====] - 0s 10ms/
step - loss: 9.3238e-04 - accuracy: 0.3464 -
val_loss: 8.3159e-04 - val_accuracy: 0.0779
1835 Epoch 7/200
1836 10/18 [=====>.....] - ETA: 0s -
loss: 8.2365e-04 - accuracy: 0.3100
1837 Epoch 7: val_loss improved from 0.00083 to 0.00056,
saving model to PET_Stock.h5
1838 18/18 [=====] - 0s 10ms/
step - loss: 9.2290e-04 - accuracy: 0.3687 -
val_loss: 5.5631e-04 - val_accuracy: 0.4416
1839 Epoch 8/200
1840 12/18 [=====>.....] - ETA: 0s -
loss: 8.4319e-04 - accuracy: 0.4083
```

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1841 Epoch 8: val_loss improved from 0.00056 to 0.00055,
    saving model to PET_Stock.h5
1842 18/18 [=====] - 0s 10ms/
    step - loss: 8.5564e-04 - accuracy: 0.4190 -
    val_loss: 5.4815e-04 - val_accuracy: 0.3247
1843 Epoch 9/200
1844 10/18 [=====>.....] - ETA: 0s -
    loss: 9.3994e-04 - accuracy: 0.3800
1845 Epoch 9: val_loss did not improve from 0.00055
1846 18/18 [=====] - 0s 9ms/step
    - loss: 9.3209e-04 - accuracy: 0.3575 - val_loss: 6
    .7391e-04 - val_accuracy: 0.4416
1847 Epoch 10/200
1848 9/18 [=====>.....] - ETA: 0s -
    loss: 8.5392e-04 - accuracy: 0.3444
1849 Epoch 10: val_loss did not improve from 0.00055
1850 18/18 [=====] - 0s 10ms/
    step - loss: 8.0134e-04 - accuracy: 0.3631 -
    val_loss: 6.7582e-04 - val_accuracy: 0.4416
1851 Epoch 11/200
1852 10/18 [=====>.....] - ETA: 0s -
    loss: 7.4020e-04 - accuracy: 0.3600
1853 Epoch 11: val_loss did not improve from 0.00055
1854 18/18 [=====] - 0s 9ms/step
    - loss: 7.5962e-04 - accuracy: 0.3911 - val_loss: 9
    .5760e-04 - val_accuracy: 0.3896
1855 Epoch 12/200
1856 9/18 [=====>.....] - ETA: 0s -
    loss: 6.4232e-04 - accuracy: 0.2222
1857 Epoch 12: val_loss did not improve from 0.00055
1858 18/18 [=====] - 0s 9ms/step
    - loss: 6.7233e-04 - accuracy: 0.3240 - val_loss: 0
    .0010 - val_accuracy: 0.4416
1859 Epoch 13/200
1860 10/18 [=====>.....] - ETA: 0s -
    loss: 7.0186e-04 - accuracy: 0.2800
1861 Epoch 13: val_loss did not improve from 0.00055
1862 18/18 [=====] - 0s 9ms/step
    - loss: 6.9281e-04 - accuracy: 0.3184 - val_loss: 0
    .0011 - val_accuracy: 0.4416
1863 Epoch 14/200
```

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1864 12/18 [=====>.....] - ETA: 0s -
    loss: 5.9942e-04 - accuracy: 0.4167
1865 Epoch 14: val_loss did not improve from 0.00055
1866 18/18 [=====] - 0s 9ms/step
    - loss: 6.4350e-04 - accuracy: 0.3966 - val_loss: 7
    .7078e-04 - val_accuracy: 0.4416
1867 Epoch 15/200
1868 10/18 [=====>.....] - ETA: 0s -
    loss: 6.4757e-04 - accuracy: 0.4600
1869 Epoch 15: val_loss did not improve from 0.00055
1870 18/18 [=====] - 0s 9ms/step
    - loss: 6.9124e-04 - accuracy: 0.4413 - val_loss: 5
    .8991e-04 - val_accuracy: 0.1818
1871 Epoch 16/200
1872 10/18 [=====>.....] - ETA: 0s -
    loss: 6.8870e-04 - accuracy: 0.3700
1873 Epoch 16: val_loss did not improve from 0.00055
1874 18/18 [=====] - 0s 10ms/
    step - loss: 7.1832e-04 - accuracy: 0.3631 -
    val_loss: 5.5242e-04 - val_accuracy: 0.3896
1875 Epoch 17/200
1876 11/18 [=====>.....] - ETA: 0s -
    loss: 7.3131e-04 - accuracy: 0.3545
1877 Epoch 17: val_loss did not improve from 0.00055
1878 18/18 [=====] - 0s 9ms/step
    - loss: 7.4362e-04 - accuracy: 0.3575 - val_loss: 0
    .0010 - val_accuracy: 0.4416
1879 Epoch 18/200
1880 10/18 [=====>.....] - ETA: 0s -
    loss: 7.4392e-04 - accuracy: 0.2900
1881 Epoch 18: val_loss did not improve from 0.00055
1882 18/18 [=====] - 0s 10ms/
    step - loss: 6.7154e-04 - accuracy: 0.3743 -
    val_loss: 0.0012 - val_accuracy: 0.4416
1883 Epoch 19/200
1884 18/18 [=====] - ETA: 0s -
    loss: 6.4477e-04 - accuracy: 0.3743
1885 Epoch 19: val_loss improved from 0.00055 to 0.00050
    , saving model to PET_Stock.h5
1886 18/18 [=====] - 0s 12ms/
    step - loss: 6.4477e-04 - accuracy: 0.3743 -
```

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1886 val_loss: 5.0322e-04 - val_accuracy: 0.3247
1887 Epoch 20/200
1888 11/18 [=====>.....] - ETA: 0s -
    loss: 7.1278e-04 - accuracy: 0.3455
1889 Epoch 20: val_loss did not improve from 0.00050
1890 18/18 [=====] - 0s 9ms/step
    - loss: 6.9311e-04 - accuracy: 0.3687 - val_loss: 6
    .0489e-04 - val_accuracy: 0.4416
1891 Epoch 21/200
1892 8/18 [=====>.....] - ETA: 0s -
    loss: 5.5371e-04 - accuracy: 0.4250
1893 Epoch 21: val_loss did not improve from 0.00050
1894 18/18 [=====] - 0s 9ms/step
    - loss: 6.9523e-04 - accuracy: 0.4246 - val_loss: 8
    .1253e-04 - val_accuracy: 0.4416
1895 Epoch 22/200
1896 11/18 [=====>.....] - ETA: 0s -
    loss: 6.9498e-04 - accuracy: 0.4182
1897 Epoch 22: val_loss improved from 0.00050 to 0.00047
, saving model to PET_Stock.h5
1898 18/18 [=====] - 0s 10ms/
step - loss: 6.4110e-04 - accuracy: 0.4022 -
val_loss: 4.6659e-04 - val_accuracy: 0.4416
1899 Epoch 23/200
1900 18/18 [=====] - ETA: 0s -
    loss: 6.8953e-04 - accuracy: 0.4693
1901 Epoch 23: val_loss did not improve from 0.00047
1902 18/18 [=====] - 0s 10ms/
step - loss: 6.8953e-04 - accuracy: 0.4693 -
val_loss: 4.7022e-04 - val_accuracy: 0.3247
1903 Epoch 24/200
1904 18/18 [=====] - ETA: 0s -
    loss: 7.6955e-04 - accuracy: 0.4022
1905 Epoch 24: val_loss did not improve from 0.00047
1906 18/18 [=====] - 0s 10ms/
step - loss: 7.6955e-04 - accuracy: 0.4022 -
val_loss: 0.0011 - val_accuracy: 0.4416
1907 Epoch 25/200
1908 12/18 [=====>.....] - ETA: 0s -
    loss: 5.7604e-04 - accuracy: 0.4500
1909 Epoch 25: val_loss did not improve from 0.00047
```

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1910 18/18 [=====] - 0s 8ms/step
      - loss: 5.8454e-04 - accuracy: 0.3631 - val_loss: 8
      .1292e-04 - val_accuracy: 0.4416
1911 Epoch 26/200
1912 10/18 [=====>.....] - ETA: 0s -
      loss: 5.6282e-04 - accuracy: 0.4700
1913 Epoch 26: val_loss did not improve from 0.00047
1914 18/18 [=====] - 0s 10ms/
      step - loss: 6.9494e-04 - accuracy: 0.4358 -
      val_loss: 8.6504e-04 - val_accuracy: 0.4416
1915 Epoch 27/200
1916 17/18 [=====>..] - ETA: 0s -
      loss: 6.0872e-04 - accuracy: 0.3824
1917 Epoch 27: val_loss did not improve from 0.00047
1918 18/18 [=====] - 0s 11ms/
      step - loss: 6.0941e-04 - accuracy: 0.3911 -
      val_loss: 9.9276e-04 - val_accuracy: 0.4416
1919 Epoch 28/200
1920 18/18 [=====] - ETA: 0s -
      loss: 6.1296e-04 - accuracy: 0.4246
1921 Epoch 28: val_loss did not improve from 0.00047
1922 18/18 [=====] - 0s 10ms/
      step - loss: 6.1296e-04 - accuracy: 0.4246 -
      val_loss: 4.9858e-04 - val_accuracy: 0.3247
1923 Epoch 29/200
1924 10/18 [=====>.....] - ETA: 0s -
      loss: 5.9496e-04 - accuracy: 0.4000
1925 Epoch 29: val_loss improved from 0.00047 to 0.00042
      , saving model to PET_Stock.h5
1926 18/18 [=====] - 0s 11ms/
      step - loss: 5.7875e-04 - accuracy: 0.3966 -
      val_loss: 4.2209e-04 - val_accuracy: 0.4416
1927 Epoch 30/200
1928 10/18 [=====>.....] - ETA: 0s -
      loss: 5.6428e-04 - accuracy: 0.3900
1929 Epoch 30: val_loss did not improve from 0.00042
1930 18/18 [=====] - 0s 9ms/step
      - loss: 5.3402e-04 - accuracy: 0.3966 - val_loss: 5
      .7464e-04 - val_accuracy: 0.4416
1931 Epoch 31/200
1932 18/18 [=====] - ETA: 0s -
```

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1932 loss: 5.2115e-04 - accuracy: 0.4134
1933 Epoch 31: val_loss did not improve from 0.00042
1934 18/18 [=====] - 0s 10ms/
    step - loss: 5.2115e-04 - accuracy: 0.4134 -
    val_loss: 9.9089e-04 - val_accuracy: 0.3247
1935 Epoch 32/200
1936 9/18 [=====>.....] - ETA: 0s -
    loss: 5.8097e-04 - accuracy: 0.4111
1937 Epoch 32: val_loss did not improve from 0.00042
1938 18/18 [=====] - 0s 10ms/
    step - loss: 5.4784e-04 - accuracy: 0.4525 -
    val_loss: 6.6474e-04 - val_accuracy: 0.4416
1939 Epoch 33/200
1940 10/18 [=====>.....] - ETA: 0s -
    loss: 5.6611e-04 - accuracy: 0.3900
1941 Epoch 33: val_loss did not improve from 0.00042
1942 18/18 [=====] - 0s 9ms/step
    - loss: 5.5970e-04 - accuracy: 0.4246 - val_loss: 5
    .0058e-04 - val_accuracy: 0.4416
1943 Epoch 34/200
1944 11/18 [=====>.....] - ETA: 0s -
    loss: 5.6520e-04 - accuracy: 0.3818
1945 Epoch 34: val_loss did not improve from 0.00042
1946 18/18 [=====] - 0s 8ms/step
    - loss: 5.4004e-04 - accuracy: 0.4302 - val_loss: 8
    .3004e-04 - val_accuracy: 0.4416
1947 Epoch 35/200
1948 10/18 [=====>.....] - ETA: 0s -
    loss: 5.0233e-04 - accuracy: 0.5400
1949 Epoch 35: val_loss did not improve from 0.00042
1950 18/18 [=====] - 0s 10ms/
    step - loss: 5.3870e-04 - accuracy: 0.4860 -
    val_loss: 7.4962e-04 - val_accuracy: 0.3636
1951 Epoch 36/200
1952 9/18 [=====>.....] - ETA: 0s -
    loss: 5.4468e-04 - accuracy: 0.4556
1953 Epoch 36: val_loss did not improve from 0.00042
1954 18/18 [=====] - 0s 10ms/
    step - loss: 5.4846e-04 - accuracy: 0.4469 -
    val_loss: 5.2806e-04 - val_accuracy: 0.4416
1955 Epoch 37/200
```

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1956 18/18 [=====] - ETA: 0s -
    loss: 5.2323e-04 - accuracy: 0.4860
1957 Epoch 37: val_loss did not improve from 0.00042
1958 18/18 [=====] - 0s 9ms/step
    - loss: 5.2323e-04 - accuracy: 0.4860 - val_loss: 8
    .3495e-04 - val_accuracy: 0.4416
1959 Epoch 38/200
1960 10/18 [=====>.....] - ETA: 0s -
    loss: 5.2063e-04 - accuracy: 0.5400
1961 Epoch 38: val_loss did not improve from 0.00042
1962 18/18 [=====] - 0s 10ms/
    step - loss: 5.1336e-04 - accuracy: 0.4693 -
    val_loss: 0.0010 - val_accuracy: 0.3247
1963 Epoch 39/200
1964 12/18 [=====>.....] - ETA: 0s -
    loss: 5.8555e-04 - accuracy: 0.3750
1965 Epoch 39: val_loss did not improve from 0.00042
1966 18/18 [=====] - 0s 10ms/
    step - loss: 5.4878e-04 - accuracy: 0.3911 -
    val_loss: 0.0010 - val_accuracy: 0.4416
1967 Epoch 40/200
1968 10/18 [=====>.....] - ETA: 0s -
    loss: 4.3979e-04 - accuracy: 0.4400
1969 Epoch 40: val_loss did not improve from 0.00042
1970 18/18 [=====] - 0s 9ms/step
    - loss: 4.8295e-04 - accuracy: 0.4469 - val_loss: 8
    .2956e-04 - val_accuracy: 0.4416
1971 Epoch 41/200
1972 10/18 [=====>.....] - ETA: 0s -
    loss: 4.2389e-04 - accuracy: 0.4600
1973 Epoch 41: val_loss did not improve from 0.00042
1974 18/18 [=====] - 0s 10ms/
    step - loss: 4.3707e-04 - accuracy: 0.4413 -
    val_loss: 5.4045e-04 - val_accuracy: 0.4026
1975 Epoch 42/200
1976 11/18 [=====>.....] - ETA: 0s -
    loss: 4.7892e-04 - accuracy: 0.3818
1977 Epoch 42: val_loss did not improve from 0.00042
1978 18/18 [=====] - 0s 9ms/step
    - loss: 4.5729e-04 - accuracy: 0.4749 - val_loss: 9
    .5593e-04 - val_accuracy: 0.4416
```

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1979 Epoch 43/200
1980 11/18 [=====>.....] - ETA: 0s -
    loss: 4.7343e-04 - accuracy: 0.4636
1981 Epoch 43: val_loss did not improve from 0.00042
1982 18/18 [=====] - 0s 9ms/step
    - loss: 4.4617e-04 - accuracy: 0.4469 - val_loss: 8
    .4012e-04 - val_accuracy: 0.4416
1983 Epoch 44/200
1984 17/18 [=====>..] - ETA: 0s -
    loss: 4.7669e-04 - accuracy: 0.4588
1985 Epoch 44: val_loss did not improve from 0.00042
1986 18/18 [=====] - 0s 11ms/
    step - loss: 4.6496e-04 - accuracy: 0.4693 -
    val_loss: 0.0010 - val_accuracy: 0.3636
1987 Epoch 45/200
1988 18/18 [=====] - ETA: 0s -
    loss: 4.9794e-04 - accuracy: 0.4358
1989 Epoch 45: val_loss did not improve from 0.00042
1990 18/18 [=====] - 0s 11ms/
    step - loss: 4.9794e-04 - accuracy: 0.4358 -
    val_loss: 0.0017 - val_accuracy: 0.4416
1991 Epoch 46/200
1992 10/18 [=====>.....] - ETA: 0s -
    loss: 5.1771e-04 - accuracy: 0.4100
1993 Epoch 46: val_loss did not improve from 0.00042
1994 18/18 [=====] - 0s 9ms/step
    - loss: 4.9769e-04 - accuracy: 0.3966 - val_loss: 4
    .8336e-04 - val_accuracy: 0.4286
1995 Epoch 47/200
1996 17/18 [=====>..] - ETA: 0s -
    loss: 4.3826e-04 - accuracy: 0.4412
1997 Epoch 47: val_loss did not improve from 0.00042
1998 18/18 [=====] - 0s 10ms/
    step - loss: 4.3761e-04 - accuracy: 0.4469 -
    val_loss: 4.3050e-04 - val_accuracy: 0.4416
1999 Epoch 48/200
2000 15/18 [=====>....] - ETA: 0s -
    loss: 4.0925e-04 - accuracy: 0.4667
2001 Epoch 48: val_loss did not improve from 0.00042
2002 18/18 [=====] - 0s 11ms/
    step - loss: 4.0904e-04 - accuracy: 0.4916 -
```

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2002 val_loss: 4.5338e-04 - val_accuracy: 0.4416
2003 Epoch 49/200
2004 14/18 [=====>.....] - ETA: 0s -
    loss: 3.9001e-04 - accuracy: 0.4143
2005 Epoch 49: val_loss did not improve from 0.00042
2006 18/18 [=====] - 0s 12ms/
    step - loss: 3.8856e-04 - accuracy: 0.4637 -
    val_loss: 0.0011 - val_accuracy: 0.4416
2007 Epoch 50/200
2008 16/18 [=====>....] - ETA: 0s -
    loss: 4.5924e-04 - accuracy: 0.4563
2009 Epoch 50: val_loss did not improve from 0.00042
2010 18/18 [=====] - 0s 11ms/
    step - loss: 4.6810e-04 - accuracy: 0.4637 -
    val_loss: 0.0023 - val_accuracy: 0.4416
2011 Epoch 51/200
2012 16/18 [=====>....] - ETA: 0s -
    loss: 3.8998e-04 - accuracy: 0.4812
2013 Epoch 51: val_loss did not improve from 0.00042
2014 18/18 [=====] - 0s 12ms/
    step - loss: 3.9211e-04 - accuracy: 0.4749 -
    val_loss: 0.0011 - val_accuracy: 0.4416
2015 Epoch 52/200
2016 16/18 [=====>....] - ETA: 0s -
    loss: 4.0043e-04 - accuracy: 0.4563
2017 Epoch 52: val_loss did not improve from 0.00042
2018 18/18 [=====] - 0s 13ms/
    step - loss: 3.9831e-04 - accuracy: 0.4693 -
    val_loss: 0.0013 - val_accuracy: 0.4416
2019 Epoch 53/200
2020 17/18 [=====>..] - ETA: 0s -
    loss: 4.1404e-04 - accuracy: 0.5118
2021 Epoch 53: val_loss did not improve from 0.00042
2022 18/18 [=====] - 0s 12ms/
    step - loss: 4.1557e-04 - accuracy: 0.5028 -
    val_loss: 0.0010 - val_accuracy: 0.4416
2023 Epoch 54/200
2024 17/18 [=====>..] - ETA: 0s -
    loss: 3.5830e-04 - accuracy: 0.4000
2025 Epoch 54: val_loss did not improve from 0.00042
2026 18/18 [=====] - 0s 11ms/
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2026 step - loss: 3.6289e-04 - accuracy: 0.4078 -
    val_loss: 8.3801e-04 - val_accuracy: 0.4286
2027 Epoch 55/200
2028 15/18 [=====>.....] - ETA: 0s -
    loss: 4.0150e-04 - accuracy: 0.5333
2029 Epoch 55: val_loss improved from 0.00042 to 0.00034
, saving model to PET_Stock.h5
2030 18/18 [=====] - 0s 14ms/
    step - loss: 4.0939e-04 - accuracy: 0.5307 -
    val_loss: 3.4132e-04 - val_accuracy: 0.3636
2031 Epoch 56/200
2032 17/18 [=====>..] - ETA: 0s -
    loss: 5.0148e-04 - accuracy: 0.4471
2033 Epoch 56: val_loss did not improve from 0.00034
2034 18/18 [=====] - 0s 12ms/
    step - loss: 4.9846e-04 - accuracy: 0.4358 -
    val_loss: 3.6842e-04 - val_accuracy: 0.2857
2035 Epoch 57/200
2036 18/18 [=====] - ETA: 0s -
    loss: 4.7808e-04 - accuracy: 0.4637
2037 Epoch 57: val_loss did not improve from 0.00034
2038 18/18 [=====] - 0s 10ms/
    step - loss: 4.7808e-04 - accuracy: 0.4637 -
    val_loss: 9.9119e-04 - val_accuracy: 0.4416
2039 Epoch 58/200
2040 16/18 [=====>....] - ETA: 0s -
    loss: 3.7903e-04 - accuracy: 0.5063
2041 Epoch 58: val_loss did not improve from 0.00034
2042 18/18 [=====] - 0s 12ms/
    step - loss: 3.8345e-04 - accuracy: 0.4972 -
    val_loss: 0.0011 - val_accuracy: 0.4416
2043 Epoch 59/200
2044 10/18 [=====>.....] - ETA: 0s -
    loss: 3.2787e-04 - accuracy: 0.4000
2045 Epoch 59: val_loss did not improve from 0.00034
2046 18/18 [=====] - 0s 10ms/
    step - loss: 3.5963e-04 - accuracy: 0.4469 -
    val_loss: 6.8028e-04 - val_accuracy: 0.4416
2047 Epoch 60/200
2048 11/18 [=====>.....] - ETA: 0s -
    loss: 4.1393e-04 - accuracy: 0.4909
```

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2049 Epoch 60: val_loss did not improve from 0.00034
2050 18/18 [=====] - 0s 9ms/step
      - loss: 3.9520e-04 - accuracy: 0.4972 - val_loss: 0
      .0013 - val_accuracy: 0.4416
2051 Epoch 61/200
2052 11/18 [=====>.....] - ETA: 0s -
      loss: 3.6129e-04 - accuracy: 0.4727
2053 Epoch 61: val_loss did not improve from 0.00034
2054 18/18 [=====] - 0s 10ms/
      step - loss: 3.8071e-04 - accuracy: 0.4637 -
      val_loss: 0.0010 - val_accuracy: 0.4416
2055 Epoch 62/200
2056 11/18 [=====>.....] - ETA: 0s -
      loss: 3.7609e-04 - accuracy: 0.4455
2057 Epoch 62: val_loss did not improve from 0.00034
2058 18/18 [=====] - 0s 8ms/step
      - loss: 3.5378e-04 - accuracy: 0.4302 - val_loss: 3
      .8062e-04 - val_accuracy: 0.4286
2059 Epoch 63/200
2060 12/18 [=====>.....] - ETA: 0s -
      loss: 3.4419e-04 - accuracy: 0.4917
2061 Epoch 63: val_loss did not improve from 0.00034
2062 18/18 [=====] - 0s 15ms/
      step - loss: 3.3874e-04 - accuracy: 0.4860 -
      val_loss: 0.0014 - val_accuracy: 0.4416
2063 Epoch 64/200
2064 12/18 [=====>.....] - ETA: 0s -
      loss: 3.5151e-04 - accuracy: 0.4833
2065 Epoch 64: val_loss did not improve from 0.00034
2066 18/18 [=====] - 0s 14ms/
      step - loss: 3.6072e-04 - accuracy: 0.4693 -
      val_loss: 4.7355e-04 - val_accuracy: 0.3636
2067 Epoch 65/200
2068 17/18 [=====>..] - ETA: 0s -
      loss: 3.2067e-04 - accuracy: 0.4176
2069 Epoch 65: val_loss did not improve from 0.00034
2070 18/18 [=====] - 0s 19ms/
      step - loss: 3.2142e-04 - accuracy: 0.4246 -
      val_loss: 9.2166e-04 - val_accuracy: 0.4416
2071 Epoch 66/200
2072 17/18 [=====>..] - ETA: 0s -
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2072 loss: 3.4982e-04 - accuracy: 0.5471
2073 Epoch 66: val_loss did not improve from 0.00034
2074 18/18 [=====] - 1s 32ms/
    step - loss: 3.4289e-04 - accuracy: 0.5475 -
    val_loss: 8.3967e-04 - val_accuracy: 0.4416
2075 Epoch 67/200
2076 10/18 [=====>.....] - ETA: 0s -
    loss: 3.0293e-04 - accuracy: 0.3900
2077 Epoch 67: val_loss did not improve from 0.00034
2078 18/18 [=====] - 0s 9ms/step
    - loss: 3.1576e-04 - accuracy: 0.4078 - val_loss: 4
    .7063e-04 - val_accuracy: 0.4416
2079 Epoch 68/200
2080 14/18 [=====>.....] - ETA: 0s -
    loss: 3.3073e-04 - accuracy: 0.4429
2081 Epoch 68: val_loss did not improve from 0.00034
2082 18/18 [=====] - 0s 12ms/
    step - loss: 3.2114e-04 - accuracy: 0.4916 -
    val_loss: 6.1677e-04 - val_accuracy: 0.4416
2083 Epoch 69/200
2084 18/18 [=====] - ETA: 0s -
    loss: 3.2166e-04 - accuracy: 0.4525
2085 Epoch 69: val_loss did not improve from 0.00034
2086 18/18 [=====] - 0s 10ms/
    step - loss: 3.2166e-04 - accuracy: 0.4525 -
    val_loss: 8.2957e-04 - val_accuracy: 0.4286
2087 Epoch 70/200
2088 10/18 [=====>.....] - ETA: 0s -
    loss: 3.3760e-04 - accuracy: 0.4800
2089 Epoch 70: val_loss improved from 0.00034 to 0.00034
, saving model to PET_Stock.h5
2090 18/18 [=====] - 0s 11ms/
    step - loss: 3.3773e-04 - accuracy: 0.5140 -
    val_loss: 3.3670e-04 - val_accuracy: 0.4416
2091 Epoch 71/200
2092 9/18 [=====>.....] - ETA: 0s -
    loss: 2.9155e-04 - accuracy: 0.5556
2093 Epoch 71: val_loss did not improve from 0.00034
2094 18/18 [=====] - 0s 9ms/step
    - loss: 3.4554e-04 - accuracy: 0.4804 - val_loss: 7
    .6144e-04 - val_accuracy: 0.4416
```

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2095 Epoch 72/200
2096 11/18 [=====>.....] - ETA: 0s -
    loss: 2.7938e-04 - accuracy: 0.5091
2097 Epoch 72: val_loss did not improve from 0.00034
2098 18/18 [=====] - 0s 9ms/step
    - loss: 2.5483e-04 - accuracy: 0.4860 - val_loss: 8
    .5432e-04 - val_accuracy: 0.4416
2099 Epoch 73/200
2100 11/18 [=====>.....] - ETA: 0s -
    loss: 3.5630e-04 - accuracy: 0.4273
2101 Epoch 73: val_loss did not improve from 0.00034
2102 18/18 [=====] - 0s 8ms/step
    - loss: 3.3619e-04 - accuracy: 0.4693 - val_loss: 0
    .0016 - val_accuracy: 0.4416
2103 Epoch 74/200
2104 11/18 [=====>.....] - ETA: 0s -
    loss: 3.2477e-04 - accuracy: 0.5545
2105 Epoch 74: val_loss did not improve from 0.00034
2106 18/18 [=====] - 0s 9ms/step
    - loss: 3.4720e-04 - accuracy: 0.5363 - val_loss: 0
    .0013 - val_accuracy: 0.4416
2107 Epoch 75/200
2108 11/18 [=====>.....] - ETA: 0s -
    loss: 3.0552e-04 - accuracy: 0.4364
2109 Epoch 75: val_loss did not improve from 0.00034
2110 18/18 [=====] - 0s 9ms/step
    - loss: 3.4387e-04 - accuracy: 0.4413 - val_loss: 7
    .5309e-04 - val_accuracy: 0.4416
2111 Epoch 76/200
2112 12/18 [=====>.....] - ETA: 0s -
    loss: 3.6629e-04 - accuracy: 0.5500
2113 Epoch 76: val_loss did not improve from 0.00034
2114 18/18 [=====] - 0s 8ms/step
    - loss: 3.5271e-04 - accuracy: 0.5140 - val_loss: 6
    .3555e-04 - val_accuracy: 0.4416
2115 Epoch 77/200
2116 17/18 [=====>..] - ETA: 0s -
    loss: 2.7012e-04 - accuracy: 0.4588
2117 Epoch 77: val_loss did not improve from 0.00034
2118 18/18 [=====] - 0s 11ms/
    step - loss: 2.6970e-04 - accuracy: 0.4525 -
```

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2118 val_loss: 0.0010 - val_accuracy: 0.4416
2119 Epoch 78/200
2120 17/18 [=====>..] - ETA: 0s -
    loss: 2.7261e-04 - accuracy: 0.5059
2121 Epoch 78: val_loss did not improve from 0.00034
2122 18/18 [=====] - 0s 11ms/
    step - loss: 2.8123e-04 - accuracy: 0.5140 -
    val_loss: 8.3811e-04 - val_accuracy: 0.3636
2123 Epoch 79/200
2124 11/18 [=====>.....] - ETA: 0s -
    loss: 3.2349e-04 - accuracy: 0.5273
2125 Epoch 79: val_loss did not improve from 0.00034
2126 18/18 [=====] - 0s 9ms/step
    - loss: 2.9653e-04 - accuracy: 0.5475 - val_loss: 5
    .2274e-04 - val_accuracy: 0.4416
2127 Epoch 80/200
2128 9/18 [=====>.....] - ETA: 0s -
    loss: 2.7236e-04 - accuracy: 0.4333
2129 Epoch 80: val_loss did not improve from 0.00034
2130 18/18 [=====] - 0s 9ms/step
    - loss: 2.7695e-04 - accuracy: 0.4860 - val_loss: 6
    .4827e-04 - val_accuracy: 0.4416
2131 Epoch 81/200
2132 11/18 [=====>.....] - ETA: 0s -
    loss: 3.2004e-04 - accuracy: 0.5727
2133 Epoch 81: val_loss did not improve from 0.00034
2134 18/18 [=====] - 0s 10ms/
    step - loss: 2.8238e-04 - accuracy: 0.5251 -
    val_loss: 8.2180e-04 - val_accuracy: 0.4026
2135 Epoch 82/200
2136 18/18 [=====] - ETA: 0s -
    loss: 3.3513e-04 - accuracy: 0.4860
2137 Epoch 82: val_loss did not improve from 0.00034
2138 18/18 [=====] - 0s 11ms/
    step - loss: 3.3513e-04 - accuracy: 0.4860 -
    val_loss: 3.6864e-04 - val_accuracy: 0.4416
2139 Epoch 83/200
2140 10/18 [=====>.....] - ETA: 0s -
    loss: 2.4764e-04 - accuracy: 0.4600
2141 Epoch 83: val_loss did not improve from 0.00034
2142 18/18 [=====] - 0s 9ms/step
```

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2142 - loss: 2.6398e-04 - accuracy: 0.4804 - val_loss: 5  
.6106e-04 - val_accuracy: 0.2727  
2143 Epoch 84/200  
2144 11/18 [=====>.....] - ETA: 0s -  
loss: 2.4955e-04 - accuracy: 0.5091  
2145 Epoch 84: val_loss did not improve from 0.00034  
2146 18/18 [=====] - 0s 9ms/step  
- loss: 2.3559e-04 - accuracy: 0.5140 - val_loss: 5  
.4716e-04 - val_accuracy: 0.4416  
2147 Epoch 85/200  
2148 18/18 [=====] - ETA: 0s -  
loss: 2.6477e-04 - accuracy: 0.5140  
2149 Epoch 85: val_loss did not improve from 0.00034  
2150 18/18 [=====] - 0s 10ms/  
step - loss: 2.6477e-04 - accuracy: 0.5140 -  
val_loss: 7.2389e-04 - val_accuracy: 0.4416  
2151 Epoch 86/200  
2152 10/18 [=====>.....] - ETA: 0s -  
loss: 2.6142e-04 - accuracy: 0.5200  
2153 Epoch 86: val_loss improved from 0.00034 to 0.00026  
, saving model to PET_Stock.h5  
2154 18/18 [=====] - 0s 12ms/  
step - loss: 2.7284e-04 - accuracy: 0.5140 -  
val_loss: 2.6132e-04 - val_accuracy: 0.4416  
2155 Epoch 87/200  
2156 9/18 [=====>.....] - ETA: 0s -  
loss: 2.2238e-04 - accuracy: 0.5556  
2157 Epoch 87: val_loss did not improve from 0.00026  
2158 18/18 [=====] - 0s 9ms/step  
- loss: 2.5855e-04 - accuracy: 0.5698 - val_loss: 8  
.9730e-04 - val_accuracy: 0.4416  
2159 Epoch 88/200  
2160 18/18 [=====] - ETA: 0s -  
loss: 2.6259e-04 - accuracy: 0.5028  
2161 Epoch 88: val_loss did not improve from 0.00026  
2162 18/18 [=====] - 0s 10ms/  
step - loss: 2.6259e-04 - accuracy: 0.5028 -  
val_loss: 3.6191e-04 - val_accuracy: 0.3506  
2163 Epoch 89/200  
2164 18/18 [=====] - ETA: 0s -  
loss: 2.5740e-04 - accuracy: 0.5251
```

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2165 Epoch 89: val_loss did not improve from 0.00026
2166 18/18 [=====] - 0s 10ms/
    step - loss: 2.5740e-04 - accuracy: 0.5251 -
    val_loss: 3.0151e-04 - val_accuracy: 0.4416
2167 Epoch 90/200
2168 11/18 [=====>.....] - ETA: 0s -
    loss: 3.1282e-04 - accuracy: 0.4636
2169 Epoch 90: val_loss did not improve from 0.00026
2170 18/18 [=====] - 0s 10ms/
    step - loss: 2.7771e-04 - accuracy: 0.4804 -
    val_loss: 0.0012 - val_accuracy: 0.4416
2171 Epoch 91/200
2172 10/18 [=====>.....] - ETA: 0s -
    loss: 2.5448e-04 - accuracy: 0.5400
2173 Epoch 91: val_loss did not improve from 0.00026
2174 18/18 [=====] - 0s 9ms/step
    - loss: 2.7036e-04 - accuracy: 0.4916 - val_loss: 5
    .8106e-04 - val_accuracy: 0.3247
2175 Epoch 92/200
2176 10/18 [=====>.....] - ETA: 0s -
    loss: 2.6026e-04 - accuracy: 0.4300
2177 Epoch 92: val_loss did not improve from 0.00026
2178 18/18 [=====] - 0s 10ms/
    step - loss: 2.6841e-04 - accuracy: 0.4469 -
    val_loss: 3.4994e-04 - val_accuracy: 0.4416
2179 Epoch 93/200
2180 10/18 [=====>.....] - ETA: 0s -
    loss: 2.9177e-04 - accuracy: 0.6200
2181 Epoch 93: val_loss did not improve from 0.00026
2182 18/18 [=====] - 0s 10ms/
    step - loss: 2.8174e-04 - accuracy: 0.5587 -
    val_loss: 2.7023e-04 - val_accuracy: 0.4416
2183 Epoch 94/200
2184 11/18 [=====>.....] - ETA: 0s -
    loss: 2.7331e-04 - accuracy: 0.5182
2185 Epoch 94: val_loss improved from 0.00026 to 0.00026
    , saving model to PET_Stock.h5
2186 18/18 [=====] - 0s 10ms/
    step - loss: 2.9349e-04 - accuracy: 0.5140 -
    val_loss: 2.5747e-04 - val_accuracy: 0.4416
2187 Epoch 95/200
```

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2188 18/18 [=====] - ETA: 0s -
    loss: 3.0484e-04 - accuracy: 0.5251
2189 Epoch 95: val_loss improved from 0.00026 to 0.00023
, saving model to PET_Stock.h5
2190 18/18 [=====] - 0s 13ms/
    step - loss: 3.0484e-04 - accuracy: 0.5251 -
    val_loss: 2.3469e-04 - val_accuracy: 0.4156
2191 Epoch 96/200
2192 17/18 [=====>..] - ETA: 0s -
    loss: 2.5640e-04 - accuracy: 0.5235
2193 Epoch 96: val_loss did not improve from 0.00023
2194 18/18 [=====] - 0s 11ms/
    step - loss: 2.5030e-04 - accuracy: 0.5196 -
    val_loss: 5.6444e-04 - val_accuracy: 0.4416
2195 Epoch 97/200
2196 10/18 [=====>.....] - ETA: 0s -
    loss: 2.4147e-04 - accuracy: 0.5800
2197 Epoch 97: val_loss did not improve from 0.00023
2198 18/18 [=====] - 0s 9ms/step
    - loss: 2.5100e-04 - accuracy: 0.5196 - val_loss: 4
    .5037e-04 - val_accuracy: 0.3247
2199 Epoch 98/200
2200 11/18 [=====>.....] - ETA: 0s -
    loss: 2.7910e-04 - accuracy: 0.4818
2201 Epoch 98: val_loss did not improve from 0.00023
2202 18/18 [=====] - 0s 9ms/step
    - loss: 2.7207e-04 - accuracy: 0.4804 - val_loss: 0
    .0013 - val_accuracy: 0.4416
2203 Epoch 99/200
2204 17/18 [=====>..] - ETA: 0s -
    loss: 2.8731e-04 - accuracy: 0.4824
2205 Epoch 99: val_loss did not improve from 0.00023
2206 18/18 [=====] - 0s 11ms/
    step - loss: 2.8609e-04 - accuracy: 0.4972 -
    val_loss: 3.5632e-04 - val_accuracy: 0.4416
2207 Epoch 100/200
2208 18/18 [=====] - ETA: 0s -
    loss: 2.2445e-04 - accuracy: 0.4804
2209 Epoch 100: val_loss did not improve from 0.00023
2210 18/18 [=====] - 0s 10ms/
    step - loss: 2.2445e-04 - accuracy: 0.4804 -
```

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2210 val_loss: 6.3277e-04 - val_accuracy: 0.4416
2211 Epoch 101/200
2212 11/18 [=====>.....] - ETA: 0s -
    loss: 2.5987e-04 - accuracy: 0.5364
2213 Epoch 101: val_loss did not improve from 0.00023
2214 18/18 [=====] - 0s 10ms/
    step - loss: 2.4805e-04 - accuracy: 0.5084 -
    val_loss: 4.7853e-04 - val_accuracy: 0.4416
2215 Epoch 102/200
2216 18/18 [=====] - ETA: 0s -
    loss: 2.3813e-04 - accuracy: 0.4916
2217 Epoch 102: val_loss did not improve from 0.00023
2218 18/18 [=====] - 0s 10ms/
    step - loss: 2.3813e-04 - accuracy: 0.4916 -
    val_loss: 2.6332e-04 - val_accuracy: 0.4416
2219 Epoch 103/200
2220 10/18 [=====>.....] - ETA: 0s -
    loss: 2.9330e-04 - accuracy: 0.5300
2221 Epoch 103: val_loss did not improve from 0.00023
2222 18/18 [=====] - 0s 10ms/
    step - loss: 2.6104e-04 - accuracy: 0.4972 -
    val_loss: 5.1129e-04 - val_accuracy: 0.4416
2223 Epoch 104/200
2224 10/18 [=====>.....] - ETA: 0s -
    loss: 2.3051e-04 - accuracy: 0.5100
2225 Epoch 104: val_loss did not improve from 0.00023
2226 18/18 [=====] - 0s 10ms/
    step - loss: 2.2900e-04 - accuracy: 0.4972 -
    val_loss: 8.1375e-04 - val_accuracy: 0.4416
2227 Epoch 105/200
2228 11/18 [=====>.....] - ETA: 0s -
    loss: 2.3928e-04 - accuracy: 0.4818
2229 Epoch 105: val_loss did not improve from 0.00023
2230 18/18 [=====] - 0s 9ms/step
    - loss: 2.6962e-04 - accuracy: 0.4972 - val_loss: 3
    .6362e-04 - val_accuracy: 0.4416
2231 Epoch 106/200
2232 18/18 [=====] - ETA: 0s -
    loss: 2.4573e-04 - accuracy: 0.4916
2233 Epoch 106: val_loss did not improve from 0.00023
2234 18/18 [=====] - 0s 11ms/
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2234 step - loss: 2.4573e-04 - accuracy: 0.4916 -
    val_loss: 3.7499e-04 - val_accuracy: 0.4416
2235 Epoch 107/200
2236 11/18 [=====>.....] - ETA: 0s -
    loss: 1.8089e-04 - accuracy: 0.4909
2237 Epoch 107: val_loss did not improve from 0.00023
2238 18/18 [=====] - 0s 9ms/step
    - loss: 2.1814e-04 - accuracy: 0.4860 - val_loss: 5
    .2754e-04 - val_accuracy: 0.4416
2239 Epoch 108/200
2240 10/18 [=====>.....] - ETA: 0s -
    loss: 2.6997e-04 - accuracy: 0.5700
2241 Epoch 108: val_loss did not improve from 0.00023
2242 18/18 [=====] - 0s 9ms/step
    - loss: 2.4005e-04 - accuracy: 0.5196 - val_loss: 5
    .8344e-04 - val_accuracy: 0.4286
2243 Epoch 109/200
2244 10/18 [=====>.....] - ETA: 0s -
    loss: 2.2861e-04 - accuracy: 0.4500
2245 Epoch 109: val_loss did not improve from 0.00023
2246 18/18 [=====] - 0s 10ms/
    step - loss: 2.4457e-04 - accuracy: 0.4469 -
    val_loss: 3.3455e-04 - val_accuracy: 0.4416
2247 Epoch 110/200
2248 11/18 [=====>.....] - ETA: 0s -
    loss: 2.3513e-04 - accuracy: 0.4909
2249 Epoch 110: val_loss did not improve from 0.00023
2250 18/18 [=====] - 0s 10ms/
    step - loss: 2.1376e-04 - accuracy: 0.5363 -
    val_loss: 4.0011e-04 - val_accuracy: 0.4416
2251 Epoch 111/200
2252 9/18 [=====>.....] - ETA: 0s -
    loss: 1.8820e-04 - accuracy: 0.4556
2253 Epoch 111: val_loss did not improve from 0.00023
2254 18/18 [=====] - 0s 10ms/
    step - loss: 1.9985e-04 - accuracy: 0.5028 -
    val_loss: 4.4315e-04 - val_accuracy: 0.4416
2255 Epoch 112/200
2256 11/18 [=====>.....] - ETA: 0s -
    loss: 2.2262e-04 - accuracy: 0.5455
2257 Epoch 112: val_loss did not improve from 0.00023
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2258 18/18 [=====] - 0s 10ms/
    step - loss: 2.0488e-04 - accuracy: 0.5307 -
    val_loss: 3.7393e-04 - val_accuracy: 0.4286
2259 Epoch 113/200
2260 17/18 [=====>...] - ETA: 0s -
    loss: 2.5896e-04 - accuracy: 0.5824
2261 Epoch 113: val_loss did not improve from 0.00023
2262 18/18 [=====] - 0s 10ms/
    step - loss: 2.5021e-04 - accuracy: 0.5698 -
    val_loss: 6.2865e-04 - val_accuracy: 0.4416
2263 Epoch 114/200
2264 18/18 [=====] - ETA: 0s -
    loss: 1.9842e-04 - accuracy: 0.5419
2265 Epoch 114: val_loss did not improve from 0.00023
2266 18/18 [=====] - 0s 10ms/
    step - loss: 1.9842e-04 - accuracy: 0.5419 -
    val_loss: 4.2484e-04 - val_accuracy: 0.4416
2267 Epoch 115/200
2268 9/18 [=====>.....] - ETA: 0s -
    loss: 1.6114e-04 - accuracy: 0.5444
2269 Epoch 115: val_loss did not improve from 0.00023
2270 18/18 [=====] - 0s 9ms/step
    - loss: 1.9296e-04 - accuracy: 0.5587 - val_loss: 3
    .4324e-04 - val_accuracy: 0.4416
2271 Epoch 116/200
2272 10/18 [=====>.....] - ETA: 0s -
    loss: 1.9908e-04 - accuracy: 0.4600
2273 Epoch 116: val_loss did not improve from 0.00023
2274 18/18 [=====] - 0s 10ms/
    step - loss: 2.0319e-04 - accuracy: 0.4693 -
    val_loss: 5.5094e-04 - val_accuracy: 0.4416
2275 Epoch 117/200
2276 12/18 [=====>.....] - ETA: 0s -
    loss: 1.9788e-04 - accuracy: 0.5667
2277 Epoch 117: val_loss improved from 0.00023 to 0.00023
, saving model to PET_Stock.h5
2278 18/18 [=====] - 0s 10ms/
    step - loss: 2.1114e-04 - accuracy: 0.5475 -
    val_loss: 2.3427e-04 - val_accuracy: 0.4416
2279 Epoch 118/200
2280 11/18 [=====>.....] - ETA: 0s -
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2280 loss: 2.1534e-04 - accuracy: 0.5364
2281 Epoch 118: val_loss did not improve from 0.00023
2282 18/18 [=====] - 0s 8ms/step
    - loss: 1.9404e-04 - accuracy: 0.5140 - val_loss: 4
    .9442e-04 - val_accuracy: 0.4416
2283 Epoch 119/200
2284 18/18 [=====] - ETA: 0s -
    loss: 1.9601e-04 - accuracy: 0.5587
2285 Epoch 119: val_loss did not improve from 0.00023
2286 18/18 [=====] - 0s 10ms/
    step - loss: 1.9601e-04 - accuracy: 0.5587 -
    val_loss: 3.5292e-04 - val_accuracy: 0.4286
2287 Epoch 120/200
2288 11/18 [=====>.....] - ETA: 0s -
    loss: 1.6844e-04 - accuracy: 0.5818
2289 Epoch 120: val_loss improved from 0.00023 to 0.00023
    , saving model to PET_Stock.h5
2290 18/18 [=====] - 0s 11ms/
    step - loss: 1.7738e-04 - accuracy: 0.5475 -
    val_loss: 2.3347e-04 - val_accuracy: 0.4416
2291 Epoch 121/200
2292 10/18 [=====>.....] - ETA: 0s -
    loss: 2.2549e-04 - accuracy: 0.6100
2293 Epoch 121: val_loss did not improve from 0.00023
2294 18/18 [=====] - 0s 9ms/step
    - loss: 2.2230e-04 - accuracy: 0.5251 - val_loss: 2
    .8795e-04 - val_accuracy: 0.4545
2295 Epoch 122/200
2296 18/18 [=====] - ETA: 0s -
    loss: 1.9970e-04 - accuracy: 0.5251
2297 Epoch 122: val_loss did not improve from 0.00023
2298 18/18 [=====] - 0s 10ms/
    step - loss: 1.9970e-04 - accuracy: 0.5251 -
    val_loss: 4.2194e-04 - val_accuracy: 0.4416
2299 Epoch 123/200
2300 10/18 [=====>.....] - ETA: 0s -
    loss: 1.9823e-04 - accuracy: 0.5900
2301 Epoch 123: val_loss did not improve from 0.00023
2302 18/18 [=====] - 0s 10ms/
    step - loss: 1.9052e-04 - accuracy: 0.5866 -
    val_loss: 3.9771e-04 - val_accuracy: 0.4416
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2303 Epoch 124/200
2304 12/18 [=====>.....] - ETA: 0s -
    loss: 1.9697e-04 - accuracy: 0.5750
2305 Epoch 124: val_loss did not improve from 0.00023
2306 18/18 [=====] - 0s 9ms/step
    - loss: 1.7932e-04 - accuracy: 0.5587 - val_loss: 3
    .1302e-04 - val_accuracy: 0.4416
2307 Epoch 125/200
2308 17/18 [=====>..] - ETA: 0s -
    loss: 1.8199e-04 - accuracy: 0.5353
2309 Epoch 125: val_loss did not improve from 0.00023
2310 18/18 [=====] - 0s 11ms/
    step - loss: 1.9196e-04 - accuracy: 0.5363 -
    val_loss: 4.9023e-04 - val_accuracy: 0.4416
2311 Epoch 126/200
2312 18/18 [=====] - ETA: 0s -
    loss: 1.9378e-04 - accuracy: 0.5754
2313 Epoch 126: val_loss improved from 0.00023 to 0.00018
    , saving model to PET_Stock.h5
2314 18/18 [=====] - 0s 12ms/
    step - loss: 1.9378e-04 - accuracy: 0.5754 -
    val_loss: 1.8116e-04 - val_accuracy: 0.4286
2315 Epoch 127/200
2316 10/18 [=====>.....] - ETA: 0s -
    loss: 1.7379e-04 - accuracy: 0.4400
2317 Epoch 127: val_loss did not improve from 0.00018
2318 18/18 [=====] - 0s 9ms/step
    - loss: 1.8149e-04 - accuracy: 0.5028 - val_loss: 3
    .0823e-04 - val_accuracy: 0.4156
2319 Epoch 128/200
2320 11/18 [=====>.....] - ETA: 0s -
    loss: 1.8222e-04 - accuracy: 0.4818
2321 Epoch 128: val_loss did not improve from 0.00018
2322 18/18 [=====] - 0s 8ms/step
    - loss: 1.6332e-04 - accuracy: 0.5084 - val_loss: 3
    .1224e-04 - val_accuracy: 0.4416
2323 Epoch 129/200
2324 11/18 [=====>.....] - ETA: 0s -
    loss: 1.8358e-04 - accuracy: 0.5545
2325 Epoch 129: val_loss did not improve from 0.00018
2326 18/18 [=====] - 0s 8ms/step
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2326 - loss: 1.9356e-04 - accuracy: 0.5196 - val_loss: 2
      .8110e-04 - val_accuracy: 0.4416
2327 Epoch 130/200
2328 11/18 [=====>.....] - ETA: 0s -
      loss: 1.5346e-04 - accuracy: 0.5091
2329 Epoch 130: val_loss did not improve from 0.00018
2330 18/18 [=====] - 0s 9ms/step
      - loss: 1.7645e-04 - accuracy: 0.5140 - val_loss: 4
      .0088e-04 - val_accuracy: 0.4416
2331 Epoch 131/200
2332 11/18 [=====>.....] - ETA: 0s -
      loss: 1.9450e-04 - accuracy: 0.6273
2333 Epoch 131: val_loss did not improve from 0.00018
2334 18/18 [=====] - 0s 8ms/step
      - loss: 1.7201e-04 - accuracy: 0.5307 - val_loss: 2
      .2625e-04 - val_accuracy: 0.4416
2335 Epoch 132/200
2336 12/18 [=====>.....] - ETA: 0s -
      loss: 1.9043e-04 - accuracy: 0.5583
2337 Epoch 132: val_loss did not improve from 0.00018
2338 18/18 [=====] - 0s 9ms/step
      - loss: 1.8789e-04 - accuracy: 0.5642 - val_loss: 4
      .3319e-04 - val_accuracy: 0.4416
2339 Epoch 133/200
2340 18/18 [=====] - ETA: 0s -
      loss: 1.7000e-04 - accuracy: 0.5363
2341 Epoch 133: val_loss did not improve from 0.00018
2342 18/18 [=====] - 0s 11ms/
      step - loss: 1.7000e-04 - accuracy: 0.5363 -
      val_loss: 3.2159e-04 - val_accuracy: 0.4416
2343 Epoch 134/200
2344 17/18 [=====>..] - ETA: 0s -
      loss: 1.9035e-04 - accuracy: 0.5588
2345 Epoch 134: val_loss did not improve from 0.00018
2346 18/18 [=====] - 0s 11ms/
      step - loss: 1.8987e-04 - accuracy: 0.5587 -
      val_loss: 4.1089e-04 - val_accuracy: 0.4416
2347 Epoch 135/200
2348 9/18 [=====>.....] - ETA: 0s -
      loss: 1.4400e-04 - accuracy: 0.5556
2349 Epoch 135: val_loss improved from 0.00018 to 0.00015
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2349 , saving model to PET_Stock.h5
2350 18/18 [=====] - 0s 12ms/
    step - loss: 1.7977e-04 - accuracy: 0.5363 -
    val_loss: 1.5373e-04 - val_accuracy: 0.4416
2351 Epoch 136/200
2352 18/18 [=====] - ETA: 0s -
    loss: 1.6846e-04 - accuracy: 0.5196
2353 Epoch 136: val_loss did not improve from 0.00015
2354 18/18 [=====] - 0s 10ms/
    step - loss: 1.6846e-04 - accuracy: 0.5196 -
    val_loss: 5.1983e-04 - val_accuracy: 0.4416
2355 Epoch 137/200
2356 11/18 [=====>.....] - ETA: 0s -
    loss: 1.4891e-04 - accuracy: 0.5636
2357 Epoch 137: val_loss did not improve from 0.00015
2358 18/18 [=====] - 0s 8ms/step
    - loss: 1.7839e-04 - accuracy: 0.5531 - val_loss: 3
    .2529e-04 - val_accuracy: 0.4416
2359 Epoch 138/200
2360 11/18 [=====>.....] - ETA: 0s -
    loss: 1.6155e-04 - accuracy: 0.5727
2361 Epoch 138: val_loss did not improve from 0.00015
2362 18/18 [=====] - 0s 8ms/step
    - loss: 1.6942e-04 - accuracy: 0.5531 - val_loss: 3
    .9442e-04 - val_accuracy: 0.4416
2363 Epoch 139/200
2364 11/18 [=====>.....] - ETA: 0s -
    loss: 1.8219e-04 - accuracy: 0.4818
2365 Epoch 139: val_loss did not improve from 0.00015
2366 18/18 [=====] - 0s 9ms/step
    - loss: 1.6864e-04 - accuracy: 0.5028 - val_loss: 2
    .1309e-04 - val_accuracy: 0.4545
2367 Epoch 140/200
2368 9/18 [=====>.....] - ETA: 0s -
    loss: 1.6692e-04 - accuracy: 0.5667
2369 Epoch 140: val_loss did not improve from 0.00015
2370 18/18 [=====] - 0s 9ms/step
    - loss: 1.6151e-04 - accuracy: 0.5698 - val_loss: 2
    .9292e-04 - val_accuracy: 0.4545
2371 Epoch 141/200
2372 10/18 [=====>.....] - ETA: 0s -
```

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2372 loss: 1.6002e-04 - accuracy: 0.5000
2373 Epoch 141: val_loss did not improve from 0.00015
2374 18/18 [=====] - 0s 9ms/step
    - loss: 1.6003e-04 - accuracy: 0.5251 - val_loss: 1
    .7851e-04 - val_accuracy: 0.4416
2375 Epoch 142/200
2376 11/18 [=====>.....] - ETA: 0s -
    loss: 2.3604e-04 - accuracy: 0.5091
2377 Epoch 142: val_loss did not improve from 0.00015
2378 18/18 [=====] - 0s 8ms/step
    - loss: 2.0785e-04 - accuracy: 0.5140 - val_loss: 4
    .7256e-04 - val_accuracy: 0.4286
2379 Epoch 143/200
2380 11/18 [=====>.....] - ETA: 0s -
    loss: 1.5478e-04 - accuracy: 0.5182
2381 Epoch 143: val_loss did not improve from 0.00015
2382 18/18 [=====] - 0s 9ms/step
    - loss: 1.6400e-04 - accuracy: 0.5363 - val_loss: 4
    .1795e-04 - val_accuracy: 0.4026
2383 Epoch 144/200
2384 9/18 [=====>.....] - ETA: 0s -
    loss: 1.9040e-04 - accuracy: 0.6000
2385 Epoch 144: val_loss did not improve from 0.00015
2386 18/18 [=====] - 0s 9ms/step
    - loss: 1.6714e-04 - accuracy: 0.5419 - val_loss: 4
    .7386e-04 - val_accuracy: 0.4416
2387 Epoch 145/200
2388 10/18 [=====>.....] - ETA: 0s -
    loss: 1.7450e-04 - accuracy: 0.4800
2389 Epoch 145: val_loss did not improve from 0.00015
2390 18/18 [=====] - 0s 8ms/step
    - loss: 1.6087e-04 - accuracy: 0.5196 - val_loss: 3
    .5327e-04 - val_accuracy: 0.4545
2391 Epoch 146/200
2392 12/18 [=====>.....] - ETA: 0s -
    loss: 1.7355e-04 - accuracy: 0.5250
2393 Epoch 146: val_loss did not improve from 0.00015
2394 18/18 [=====] - 0s 8ms/step
    - loss: 1.5649e-04 - accuracy: 0.5251 - val_loss: 4
    .3544e-04 - val_accuracy: 0.4545
2395 Epoch 147/200
```

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2396 10/18 [=====>.....] - ETA: 0s -
    loss: 1.4998e-04 - accuracy: 0.4700
2397 Epoch 147: val_loss did not improve from 0.00015
2398 18/18 [=====] - 0s 10ms/
    step - loss: 1.7858e-04 - accuracy: 0.5084 -
    val_loss: 2.1053e-04 - val_accuracy: 0.4416
2399 Epoch 148/200
2400 10/18 [=====>.....] - ETA: 0s -
    loss: 1.6317e-04 - accuracy: 0.5900
2401 Epoch 148: val_loss did not improve from 0.00015
2402 18/18 [=====] - 0s 9ms/step
    - loss: 1.9119e-04 - accuracy: 0.5642 - val_loss: 4
    .8724e-04 - val_accuracy: 0.4416
2403 Epoch 149/200
2404 18/18 [=====] - ETA: 0s -
    loss: 1.6360e-04 - accuracy: 0.5475
2405 Epoch 149: val_loss did not improve from 0.00015
2406 18/18 [=====] - 0s 10ms/
    step - loss: 1.6360e-04 - accuracy: 0.5475 -
    val_loss: 2.0483e-04 - val_accuracy: 0.4156
2407 Epoch 150/200
2408 10/18 [=====>.....] - ETA: 0s -
    loss: 2.0602e-04 - accuracy: 0.5500
2409 Epoch 150: val_loss did not improve from 0.00015
2410 18/18 [=====] - 0s 10ms/
    step - loss: 1.7948e-04 - accuracy: 0.5196 -
    val_loss: 2.0482e-04 - val_accuracy: 0.4156
2411 Epoch 151/200
2412 16/18 [=====>....] - ETA: 0s -
    loss: 2.1536e-04 - accuracy: 0.4938
2413 Epoch 151: val_loss did not improve from 0.00015
2414 18/18 [=====] - 0s 11ms/
    step - loss: 2.1671e-04 - accuracy: 0.4916 -
    val_loss: 2.5592e-04 - val_accuracy: 0.4416
2415 Epoch 152/200
2416 9/18 [=====>.....] - ETA: 0s -
    loss: 1.6117e-04 - accuracy: 0.5222
2417 Epoch 152: val_loss did not improve from 0.00015
2418 18/18 [=====] - 0s 9ms/step
    - loss: 1.8281e-04 - accuracy: 0.5028 - val_loss: 6
    .8932e-04 - val_accuracy: 0.4416
```

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2419 Epoch 153/200
2420 9/18 [=====>.....] - ETA: 0s -
    loss: 1.6640e-04 - accuracy: 0.3889
2421 Epoch 153: val_loss did not improve from 0.00015
2422 18/18 [=====] - 0s 9ms/step
    - loss: 1.6976e-04 - accuracy: 0.5084 - val_loss: 4
    .4899e-04 - val_accuracy: 0.4416
2423 Epoch 154/200
2424 12/18 [=====>.....] - ETA: 0s -
    loss: 1.9519e-04 - accuracy: 0.5417
2425 Epoch 154: val_loss did not improve from 0.00015
2426 18/18 [=====] - 0s 9ms/step
    - loss: 1.9427e-04 - accuracy: 0.5642 - val_loss: 4
    .1440e-04 - val_accuracy: 0.4416
2427 Epoch 155/200
2428 18/18 [=====] - ETA: 0s -
    loss: 1.5729e-04 - accuracy: 0.5698
2429 Epoch 155: val_loss did not improve from 0.00015
2430 18/18 [=====] - 0s 11ms/
    step - loss: 1.5729e-04 - accuracy: 0.5698 -
    val_loss: 4.0494e-04 - val_accuracy: 0.4416
2431 Epoch 156/200
2432 10/18 [=====>.....] - ETA: 0s -
    loss: 1.5517e-04 - accuracy: 0.4500
2433 Epoch 156: val_loss did not improve from 0.00015
2434 18/18 [=====] - 0s 9ms/step
    - loss: 1.7192e-04 - accuracy: 0.4972 - val_loss: 2
    .2604e-04 - val_accuracy: 0.4416
2435 Epoch 157/200
2436 14/18 [=====>.....] - ETA: 0s -
    loss: 1.8317e-04 - accuracy: 0.5357
2437 Epoch 157: val_loss did not improve from 0.00015
2438 18/18 [=====] - 0s 12ms/
    step - loss: 1.7382e-04 - accuracy: 0.5419 -
    val_loss: 1.6474e-04 - val_accuracy: 0.4286
2439 Epoch 158/200
2440 16/18 [=====>....] - ETA: 0s -
    loss: 1.9048e-04 - accuracy: 0.5063
2441 Epoch 158: val_loss did not improve from 0.00015
2442 18/18 [=====] - 0s 10ms/
    step - loss: 2.0213e-04 - accuracy: 0.5084 -
```

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2442 val_loss: 4.8213e-04 - val_accuracy: 0.4545
2443 Epoch 159/200
2444 17/18 [=====>...] - ETA: 0s -
    loss: 1.7079e-04 - accuracy: 0.5529
2445 Epoch 159: val_loss did not improve from 0.00015
2446 18/18 [=====] - 0s 9ms/step
    - loss: 1.6868e-04 - accuracy: 0.5531 - val_loss: 2
    .4544e-04 - val_accuracy: 0.4416
2447 Epoch 160/200
2448 10/18 [=====>.....] - ETA: 0s -
    loss: 2.0529e-04 - accuracy: 0.5700
2449 Epoch 160: val_loss did not improve from 0.00015
2450 18/18 [=====] - 0s 9ms/step
    - loss: 1.6984e-04 - accuracy: 0.5475 - val_loss: 2
    .9589e-04 - val_accuracy: 0.4286
2451 Epoch 161/200
2452 11/18 [=====>.....] - ETA: 0s -
    loss: 1.6487e-04 - accuracy: 0.5091
2453 Epoch 161: val_loss did not improve from 0.00015
2454 18/18 [=====] - 0s 8ms/step
    - loss: 1.7652e-04 - accuracy: 0.5084 - val_loss: 2
    .4679e-04 - val_accuracy: 0.4416
2455 Epoch 162/200
2456 10/18 [=====>.....] - ETA: 0s -
    loss: 1.7171e-04 - accuracy: 0.5600
2457 Epoch 162: val_loss did not improve from 0.00015
2458 18/18 [=====] - 0s 9ms/step
    - loss: 1.3962e-04 - accuracy: 0.5531 - val_loss: 5
    .0637e-04 - val_accuracy: 0.4545
2459 Epoch 163/200
2460 15/18 [=====>....] - ETA: 0s -
    loss: 1.5416e-04 - accuracy: 0.5867
2461 Epoch 163: val_loss did not improve from 0.00015
2462 18/18 [=====] - 0s 11ms/
    step - loss: 1.5804e-04 - accuracy: 0.5698 -
    val_loss: 3.7353e-04 - val_accuracy: 0.4416
2463 Epoch 164/200
2464 18/18 [=====] - ETA: 0s -
    loss: 1.9090e-04 - accuracy: 0.5475
2465 Epoch 164: val_loss did not improve from 0.00015
2466 18/18 [=====] - 0s 9ms/step
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2466  - loss: 1.9090e-04 - accuracy: 0.5475 - val_loss: 0
      .0010 - val_accuracy: 0.4156
2467 Epoch 165/200
2468 10/18 [=====>.....] - ETA: 0s -
      loss: 2.2623e-04 - accuracy: 0.5800
2469 Epoch 165: val_loss did not improve from 0.00015
2470 18/18 [=====] - 0s 8ms/step
      - loss: 1.9734e-04 - accuracy: 0.5307 - val_loss: 2
      .9429e-04 - val_accuracy: 0.4416
2471 Epoch 166/200
2472 10/18 [=====>.....] - ETA: 0s -
      loss: 1.8454e-04 - accuracy: 0.5800
2473 Epoch 166: val_loss did not improve from 0.00015
2474 18/18 [=====] - 0s 8ms/step
      - loss: 1.9517e-04 - accuracy: 0.5419 - val_loss: 6
      .7039e-04 - val_accuracy: 0.4416
2475 Epoch 167/200
2476 10/18 [=====>.....] - ETA: 0s -
      loss: 1.8192e-04 - accuracy: 0.5200
2477 Epoch 167: val_loss did not improve from 0.00015
2478 18/18 [=====] - 0s 9ms/step
      - loss: 1.6153e-04 - accuracy: 0.5307 - val_loss: 3
      .7800e-04 - val_accuracy: 0.4286
2479 Epoch 168/200
2480 10/18 [=====>.....] - ETA: 0s -
      loss: 1.5183e-04 - accuracy: 0.6200
2481 Epoch 168: val_loss did not improve from 0.00015
2482 18/18 [=====] - 0s 9ms/step
      - loss: 1.4785e-04 - accuracy: 0.5587 - val_loss: 4
      .2291e-04 - val_accuracy: 0.4416
2483 Epoch 169/200
2484 10/18 [=====>.....] - ETA: 0s -
      loss: 1.6612e-04 - accuracy: 0.5300
2485 Epoch 169: val_loss did not improve from 0.00015
2486 18/18 [=====] - 0s 9ms/step
      - loss: 1.7303e-04 - accuracy: 0.5531 - val_loss: 6
      .6555e-04 - val_accuracy: 0.4416
2487 Epoch 170/200
2488 10/18 [=====>.....] - ETA: 0s -
      loss: 1.5733e-04 - accuracy: 0.4300
2489 Epoch 170: val_loss did not improve from 0.00015
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2490 18/18 [=====] - 0s 8ms/step
      - loss: 1.5740e-04 - accuracy: 0.5084 - val_loss: 3
      .0367e-04 - val_accuracy: 0.4416
2491 Epoch 171/200
2492 11/18 [=====>.....] - ETA: 0s -
      loss: 1.4278e-04 - accuracy: 0.4909
2493 Epoch 171: val_loss did not improve from 0.00015
2494 18/18 [=====] - 0s 9ms/step
      - loss: 1.5619e-04 - accuracy: 0.4637 - val_loss: 8
      .7054e-04 - val_accuracy: 0.3636
2495 Epoch 172/200
2496 10/18 [=====>.....] - ETA: 0s -
      loss: 1.6630e-04 - accuracy: 0.5500
2497 Epoch 172: val_loss did not improve from 0.00015
2498 18/18 [=====] - 0s 10ms/
      step - loss: 1.7002e-04 - accuracy: 0.5196 -
      val_loss: 5.3767e-04 - val_accuracy: 0.3896
2499 Epoch 173/200
2500 11/18 [=====>.....] - ETA: 0s -
      loss: 1.7771e-04 - accuracy: 0.5364
2501 Epoch 173: val_loss did not improve from 0.00015
2502 18/18 [=====] - 0s 9ms/step
      - loss: 1.7074e-04 - accuracy: 0.5531 - val_loss: 6
      .6088e-04 - val_accuracy: 0.4545
2503 Epoch 174/200
2504 10/18 [=====>.....] - ETA: 0s -
      loss: 1.6574e-04 - accuracy: 0.6000
2505 Epoch 174: val_loss did not improve from 0.00015
2506 18/18 [=====] - 0s 9ms/step
      - loss: 1.6958e-04 - accuracy: 0.5922 - val_loss: 4
      .2597e-04 - val_accuracy: 0.3377
2507 Epoch 175/200
2508 13/18 [=====>.....] - ETA: 0s -
      loss: 1.7446e-04 - accuracy: 0.5538
2509 Epoch 175: val_loss did not improve from 0.00015
2510 18/18 [=====] - 0s 7ms/step
      - loss: 1.7299e-04 - accuracy: 0.5642 - val_loss: 7
      .6835e-04 - val_accuracy: 0.4416
2511 Epoch 176/200
2512 12/18 [=====>.....] - ETA: 0s -
      loss: 1.2695e-04 - accuracy: 0.5417
```

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2513 Epoch 176: val_loss did not improve from 0.00015
2514 18/18 [=====] - 0s 8ms/step
    - loss: 1.4919e-04 - accuracy: 0.5307 - val_loss: 5
    .2596e-04 - val_accuracy: 0.4416
2515 Epoch 177/200
2516 11/18 [=====>.....] - ETA: 0s -
    loss: 1.4719e-04 - accuracy: 0.5636
2517 Epoch 177: val_loss did not improve from 0.00015
2518 18/18 [=====] - 0s 8ms/step
    - loss: 1.4707e-04 - accuracy: 0.5475 - val_loss: 5
    .5698e-04 - val_accuracy: 0.4416
2519 Epoch 178/200
2520 10/18 [=====>.....] - ETA: 0s -
    loss: 1.3045e-04 - accuracy: 0.5700
2521 Epoch 178: val_loss did not improve from 0.00015
2522 18/18 [=====] - 0s 8ms/step
    - loss: 1.4865e-04 - accuracy: 0.5251 - val_loss: 6
    .9021e-04 - val_accuracy: 0.3766
2523 Epoch 179/200
2524 12/18 [=====>.....] - ETA: 0s -
    loss: 1.5503e-04 - accuracy: 0.6000
2525 Epoch 179: val_loss did not improve from 0.00015
2526 18/18 [=====] - 0s 8ms/step
    - loss: 1.6698e-04 - accuracy: 0.5531 - val_loss: 8
    .0537e-04 - val_accuracy: 0.4416
2527 Epoch 180/200
2528 11/18 [=====>.....] - ETA: 0s -
    loss: 1.8610e-04 - accuracy: 0.5909
2529 Epoch 180: val_loss did not improve from 0.00015
2530 18/18 [=====] - 0s 8ms/step
    - loss: 1.7238e-04 - accuracy: 0.5363 - val_loss: 3
    .6986e-04 - val_accuracy: 0.4156
2531 Epoch 181/200
2532 12/18 [=====>.....] - ETA: 0s -
    loss: 1.8054e-04 - accuracy: 0.5667
2533 Epoch 181: val_loss did not improve from 0.00015
2534 18/18 [=====] - 0s 11ms/
    step - loss: 1.6222e-04 - accuracy: 0.5531 -
    val_loss: 2.6632e-04 - val_accuracy: 0.4545
2535 Epoch 182/200
2536 12/18 [=====>.....] - ETA: 0s -
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2536 loss: 1.8377e-04 - accuracy: 0.4417
2537 Epoch 182: val_loss did not improve from 0.00015
2538 18/18 [=====] - 0s 9ms/step
    - loss: 1.6864e-04 - accuracy: 0.4916 - val_loss: 6
    .1367e-04 - val_accuracy: 0.4416
2539 Epoch 183/200
2540 10/18 [=====>.....] - ETA: 0s -
    loss: 1.7857e-04 - accuracy: 0.4800
2541 Epoch 183: val_loss did not improve from 0.00015
2542 18/18 [=====] - 0s 8ms/step
    - loss: 1.8063e-04 - accuracy: 0.5531 - val_loss: 7
    .5683e-04 - val_accuracy: 0.4286
2543 Epoch 184/200
2544 10/18 [=====>.....] - ETA: 0s -
    loss: 1.4187e-04 - accuracy: 0.6200
2545 Epoch 184: val_loss did not improve from 0.00015
2546 18/18 [=====] - 0s 9ms/step
    - loss: 1.4835e-04 - accuracy: 0.5642 - val_loss: 1
    .7799e-04 - val_accuracy: 0.4545
2547 Epoch 185/200
2548 18/18 [=====] - ETA: 0s -
    loss: 1.7088e-04 - accuracy: 0.5475
2549 Epoch 185: val_loss did not improve from 0.00015
2550 18/18 [=====] - 0s 10ms/
    step - loss: 1.7088e-04 - accuracy: 0.5475 -
    val_loss: 7.0657e-04 - val_accuracy: 0.4416
2551 Epoch 186/200
2552 14/18 [=====>.....] - ETA: 0s -
    loss: 1.6284e-04 - accuracy: 0.5286
2553 Epoch 186: val_loss did not improve from 0.00015
2554 18/18 [=====] - 0s 12ms/
    step - loss: 1.5823e-04 - accuracy: 0.5363 -
    val_loss: 3.8670e-04 - val_accuracy: 0.4286
2555 Epoch 187/200
2556 14/18 [=====>.....] - ETA: 0s -
    loss: 1.5531e-04 - accuracy: 0.5786
2557 Epoch 187: val_loss did not improve from 0.00015
2558 18/18 [=====] - 0s 10ms/
    step - loss: 1.6995e-04 - accuracy: 0.5754 -
    val_loss: 6.9733e-04 - val_accuracy: 0.4416
2559 Epoch 188/200
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2560 17/18 [=====>..] - ETA: 0s -
    loss: 1.5902e-04 - accuracy: 0.5176
2561 Epoch 188: val_loss did not improve from 0.00015
2562 18/18 [=====] - 0s 9ms/step
    - loss: 1.5830e-04 - accuracy: 0.5363 - val_loss: 3
    .3868e-04 - val_accuracy: 0.4416
2563 Epoch 189/200
2564 10/18 [=====>.....] - ETA: 0s -
    loss: 1.4806e-04 - accuracy: 0.5300
2565 Epoch 189: val_loss did not improve from 0.00015
2566 18/18 [=====] - 0s 9ms/step
    - loss: 1.5955e-04 - accuracy: 0.5698 - val_loss: 6
    .0059e-04 - val_accuracy: 0.4286
2567 Epoch 190/200
2568 17/18 [=====>..] - ETA: 0s -
    loss: 1.4439e-04 - accuracy: 0.5824
2569 Epoch 190: val_loss did not improve from 0.00015
2570 18/18 [=====] - 0s 10ms/
    step - loss: 1.4752e-04 - accuracy: 0.5866 -
    val_loss: 3.7595e-04 - val_accuracy: 0.4286
2571 Epoch 191/200
2572 10/18 [=====>.....] - ETA: 0s -
    loss: 1.6831e-04 - accuracy: 0.5200
2573 Epoch 191: val_loss did not improve from 0.00015
2574 18/18 [=====] - 0s 8ms/step
    - loss: 1.7321e-04 - accuracy: 0.5419 - val_loss: 5
    .5003e-04 - val_accuracy: 0.4416
2575 Epoch 192/200
2576 13/18 [=====>.....] - ETA: 0s -
    loss: 1.6631e-04 - accuracy: 0.5846
2577 Epoch 192: val_loss did not improve from 0.00015
2578 18/18 [=====] - 0s 8ms/step
    - loss: 1.5358e-04 - accuracy: 0.5587 - val_loss: 2
    .8320e-04 - val_accuracy: 0.4416
2579 Epoch 193/200
2580 18/18 [=====] - ETA: 0s -
    loss: 1.6599e-04 - accuracy: 0.5475
2581 Epoch 193: val_loss did not improve from 0.00015
2582 18/18 [=====] - 0s 9ms/step
    - loss: 1.6599e-04 - accuracy: 0.5475 - val_loss: 6
    .5257e-04 - val_accuracy: 0.4156
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2583 Epoch 194/200
2584 10/18 [=====>.....] - ETA: 0s -
    loss: 1.3102e-04 - accuracy: 0.5700
2585 Epoch 194: val_loss did not improve from 0.00015
2586 18/18 [=====] - 0s 9ms/step
    - loss: 1.3223e-04 - accuracy: 0.5587 - val_loss: 3
    .4400e-04 - val_accuracy: 0.4416
2587 Epoch 195/200
2588 10/18 [=====>.....] - ETA: 0s -
    loss: 1.8468e-04 - accuracy: 0.5400
2589 Epoch 195: val_loss did not improve from 0.00015
2590 18/18 [=====] - 0s 9ms/step
    - loss: 1.7963e-04 - accuracy: 0.5251 - val_loss: 4
    .3349e-04 - val_accuracy: 0.4416
2591 Epoch 196/200
2592 10/18 [=====>.....] - ETA: 0s -
    loss: 1.3343e-04 - accuracy: 0.5300
2593 Epoch 196: val_loss did not improve from 0.00015
2594 18/18 [=====] - 0s 9ms/step
    - loss: 1.3034e-04 - accuracy: 0.5419 - val_loss: 8
    .6814e-04 - val_accuracy: 0.4416
2595 Epoch 197/200
2596 18/18 [=====] - ETA: 0s -
    loss: 1.5202e-04 - accuracy: 0.5698
2597 Epoch 197: val_loss did not improve from 0.00015
2598 18/18 [=====] - 0s 9ms/step
    - loss: 1.5202e-04 - accuracy: 0.5698 - val_loss: 5
    .0415e-04 - val_accuracy: 0.4545
2599 Epoch 198/200
2600 10/18 [=====>.....] - ETA: 0s -
    loss: 1.6193e-04 - accuracy: 0.5900
2601 Epoch 198: val_loss did not improve from 0.00015
2602 18/18 [=====] - 0s 8ms/step
    - loss: 1.5170e-04 - accuracy: 0.5419 - val_loss: 3
    .9108e-04 - val_accuracy: 0.4416
2603 Epoch 199/200
2604 17/18 [=====>..] - ETA: 0s -
    loss: 1.5334e-04 - accuracy: 0.5000
2605 Epoch 199: val_loss did not improve from 0.00015
2606 18/18 [=====] - 0s 9ms/step
    - loss: 1.5562e-04 - accuracy: 0.5140 - val_loss: 4
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2606 .9226e-04 - val_accuracy: 0.4416
2607 Epoch 200/200
2608 11/18 [=====>.....] - ETA: 0s -
    loss: 1.5855e-04 - accuracy: 0.5273
2609 Epoch 200: val_loss did not improve from 0.00015
2610 18/18 [=====] - 0s 9ms/step
    - loss: 1.5053e-04 - accuracy: 0.5531 - val_loss: 5
    .3196e-04 - val_accuracy: 0.4545
2611 4/4 [=====] - 1s 5ms/step
2612 MSE Value for DAUTUHATANGGIAOTHONGDEOA. INC
2613 Steady State Error of HHV Prediction Process:
2614 0.0051146054301163
2615 Maximum Deflection of The Model for HHV:
2616 0.0055939676240034444
2617 Minimun Deflection of The Model for HHV:
2618 0.006198775825095827
2619 Close Deflection of The Model for HHV:
2620 0.0067440589671145116
2621 4/4 [=====] - 1s 3ms/step
2622 MSE Value for CTCP DAILYVANTAI. INC
2623 Steady State Error of HHV Prediction Process:
2624 0.0007787866800684795
2625 Maximum Deflection of The Model for SFI:
2626 0.0008013562156112
2627 Minimun Deflection of The Model for SFI:
2628 0.0009449241768346977
2629 Close Deflection of The Model for SFI:
2630 0.0008508704703263481
2631 4/4 [=====] - 1s 0s/step
2632 MSE Value for Tổng Công ty cổ phần Dịch vụ Tổng hợp
Dầu khí. INC
2633 Steady State Error of PET Prediction Process:
2634 0.003752835007449597
2635 Maximum Deflection of The Model for PET:
2636 0.005178551638213019
2637 Minimun Deflection of The Model for PET:
2638 0.004087546855549368
2639 Close Deflection of The Model for PET:
2640 0.006449921928597639
2641
2642 Process finished with exit code 0
```