OUTPUT:

CSV Data Loaded Successfully!

	Date	Open	High	Low	Close	Volume	Trend
0	2026-01-01	137.45	140.66	136.93	137.56	1890695	Up
1	2026-01-02	195.07	195.49	190.56	191.93	1000126	Up
2	2026-01-03	173.20	174.01	170.67	171.26	1838761	Down
3	2026-01-04	159.87	164.36	155.74	156.50	4173360	Down
4	2026-01-05	115.60	118.63	114.00	114.56	1500315	Down

Data inserted into MongoDB successfully!

Data fetched from MongoDB:

	_id	Date	Open	High	Low	Close	Volume	Trend
0	69a12c4bb34971da1d83613b	2026-01-01	137.45	140.66	136.93	137.56	1890695	Up
1	69a12c4bb34971da1d83613c	2026-01-02	195.07	195.49	190.56	191.93	1000126	Up
2	69a12c4bb34971da1d83613d	2026-01-03	173.20	174.01	170.67	171.26	1838761	Down
3	69a12c4bb34971da1d83613e	2026-01-04	159.87	164.36	155.74	156.50	4173360	Down
4	69a12c4bb34971da1d83613f	2026-01-05	115.60	118.63	114.00	114.56	1500315	Down

Model Training Completed!

Model Accuracy: 0.775

Confusion Matrix:

 [[14 2]

 [7 17]]

Classification Report:

              precision   recall f1-score   support

        Down   0.67   0.88   0.76   16
          Up   0.89   0.71   0.79   24

    accuracy   0.78   40
   macro avg   0.78   0.79   0.77   40
weighted avg   0.80   0.78   0.78   40

Predicted Trend for Example Input: Up

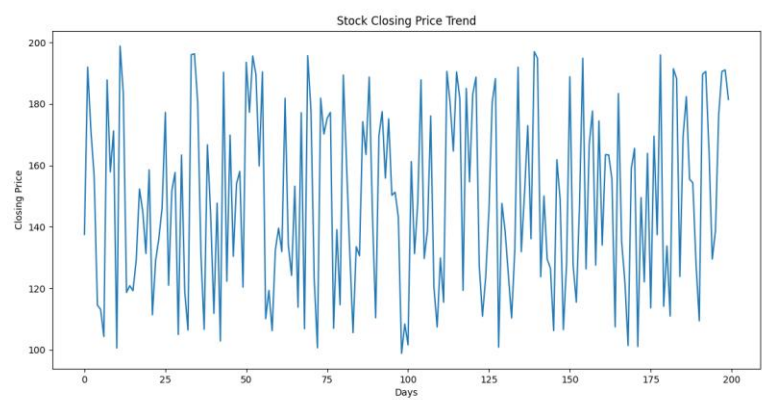Project Execution Completed Successfully!
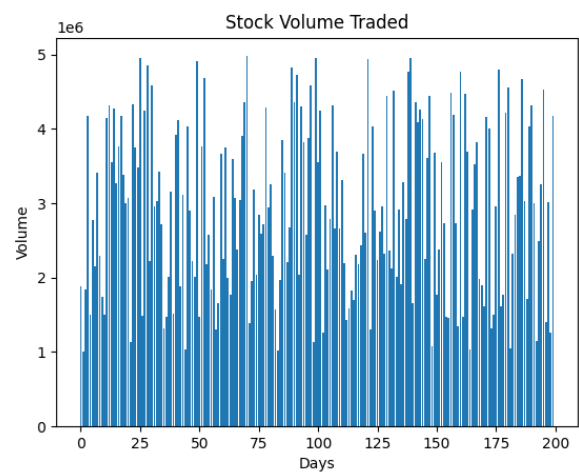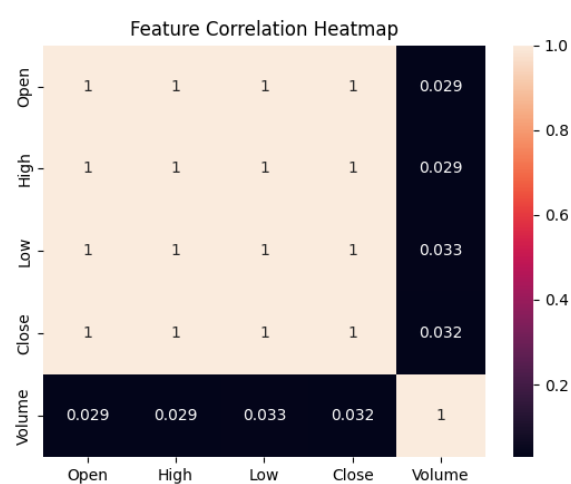

Figure 1:   Figure 2

Figure 3:

Feature Correlation Heatmap

Figure 4:

Feature Importance in Random Forest