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Software Engineering Web Apps – HW3

	1	2	3	4	5	6	7	8	9	10
Input	18.61	449.92	186.35	50	77.28	1494.2	70.32	55.65	0.27	125.79
	18.75	435.28	188.53	50.05	76.4	1495.36	69.72	55.95	0.27	126.61
	18.75	428.24	189.87	49.4	76.64	1485	70.93	55.93	0.27	125.37
	18.67	440	191.45	49.3	76.8	1446.49	70.82	56.29	0.27	126.43
	18.66	431.6	188.09	48.93	77.18	1457.337	69.99	56.65	0.27	124.43
	17.86	402.5	182.71	47.15	75.03	1457.37	68.99	56.36	0.27	121.23
	18.02	417.3	180.22	47.08	74.03	1466.89	67.6	55.47	0.27	120.85
	17.97	402	181.84	47.72	74.34	1406.25	67.87	55.25	0.27	121.78
	17.56	417.3	179.78	47.45	74.47	1385.93	68.62	54.86	0.27	117.96
	17.76	402	184.51	48.57	73.02	1364.67	68.88	54.2	0.27	125.1
Predict	17.78	407.91	185.33	47.99	73.83	1389.56	68.59	54.75	0.27	122.23
Actual	18.38	396.5	187.83	48.56	75.52	1445.95	69.37	55.66	0.27	123.55
Err (%)	2.62	3.48	1.50	1.17	2.22	3.89	1.12	1.63	0.0	1.06

1. Valeant (VRX)
2. Nintendo (NTDOF)
3. Costco (COST)
4. Sony (SNE)
5. Citigroup (C)
6. Amazon (AMZN)
7. Walgreens (WBA)
8. Starbucks (SBUX)
9. Dac Techs (DAAT)
10. Electronic Arts (EA)

The program developed to perform Bayesian curve fitting was applied to stock price prediction. 10 companies were sampled for stock prices over the course of 10 days. This data was used to predict price for the 11th day. The results are compiled and shown in the table above. Overall, accuracy is reasonable given the sample size. Relative error tends to fluctuate between 1-3%, depending on how volatile a particular company's value may change over time. Unsurprisingly, stable prices with little variance tend to have lower prediction error rates compared to more distributed stock prices. Given that the sample period is only 10 days, the implementation currently seems to be best suited for short term predictions. A sudden disruption in a stable stock such as DAAT would likely have a very inaccurate prediction whereas a regularly inconsistent stock such as AMZN would be somewhat prepared for given that the existing data is already very varied.