1. 5 Feat. 25

| Day | Agent5405 | Baseline | Phase 3 |
| ---: | ---: | ---: | ---: |
| 1 | $\$ 1,235.83$ | $\$ 1,200.67$ | $\$ 1,235.83$ |
| 2 | $\$ 1,317.49$ | $\$ 1,300.67$ | $\$ 1,317.49$ |
| 3 | $\$ 1,507.86$ | $\$ 1,463.44$ | $\$ 1,481.68$ |
| 4 | $\$ 1,641.16$ | $\$ 1,549.48$ | $\$ 1,615.63$ |
| 5 | $\$ 1,735.33$ | $\$ 1,644.30$ | $\$ 1,715.63$ |
| 6 | $\$ 1,898.62$ | $\$ 1,797.54$ | $\$ 1,890.31$ |
| 7 | $\$ 2,257.96$ | $\$ 2,163.76$ | $\$ 2,249.65$ |
| 8 | $\$ 2,749$ | $\$ 2,647.36$ | $\$ 2,718.53$ |
| 9 | $\$ 3,586.73$ | $\$ 3,379.87$ | $\$ 3,535.68$ |
| 10 | $\$ 3,729.81$ | $\$ 3,388.63$ | $\$ 3,678.75$ |
| 190 | $\$ 463,459.12$ | $\$ 180,717.87$ | $\$ 482,679.37$ |
| 191 | $\$ 457,106.28$ | $\$ 178,078.93$ | $\$ 486,684.13$ |
| 192 | $\$ 470,140.22$ | $\$ 178,106.01$ | $\$ 499,718.07$ |
| 193 | $\$ 472,980.94$ | $\$ 186,935$ | $\$ 508,547.06$ |
| 194 | $\$ 473,087.29$ | $\$ 184,707.21$ | $\$ 508,647.06$ |
| 195 | $\$ 473,187.29$ | $\$ 184,479.80$ | $\$ 508,747.06$ |
| 196 | $\$ 471,231.48$ | $\$ 184,579.80$ | $\$ 506,791.25$ |
| 197 | $\$ 467,244.81$ | $\$ 184,679.80$ | $\$ 504,868.97$ |
| 198 | $\$ 467,344.81$ | $\$ 183,987.80$ | $\$ 504,968.97$ |
| 199 | $\$ 466,136.20$ | $\$ 184,087.80$ | $\$ 503,760.36$ |
| 200 | $\$ 469,366.31$ | $\$ 183,944.69$ | $\$ 506,990.47$ |


2. 5 Feat 50

| Day | Agent5405 | Day | Baseline | Phase 3 |
| ---: | ---: | ---: | ---: | ---: |
| 1 | $\$ 1,175.85$ | 1 | $\$ 1,140.69$ | $\$ 1,175.85$ |
| 2 | $\$ 1,320.99$ | 2 | $\$ 1,133.07$ | $\$ 1,320.99$ |
| 3 | $\$ 1,485.18$ | 3 | $\$ 1,231.54$ | $\$ 1,483.38$ |
| 4 | $\$ 1,677.02$ | 4 | $\$ 1,380.42$ | $\$ 1,675.22$ |
| 5 | $\$ 1,771.19$ | 5 | $\$ 1,476.89$ | $\$ 1,769.39$ |
| 6 | $\$ 2,041.37$ | 6 | $\$ 1,717.57$ | $\$ 2,039.09$ |
| 7 | $\$ 2,666.28$ | 7 | $\$ 2,100.21$ | $\$ 2,664.01$ |
| 8 | $\$ 3,210.40$ | 8 | $\$ 2,814.92$ | $\$ 3,208.12$ |
| 9 | $\$ 3,553.19$ | 9 | $\$ 3,117.19$ | $\$ 3,550.92$ |
| 10 | $\$ 4,568.73$ | 10 | $\$ 4,121.75$ | $\$ 4,566.46$ |
| 190 | $\$ 1,608,328.84$ | 190 | $\$ 918,040.49$ | $\$ 1,645,785.01$ |
| 191 | $\$ 1,614,905.23$ | 191 | $\$ 920,045.77$ | $\$ 1,652,361.39$ |
| 192 | $\$ 1,615,005.23$ | 192 | $\$ 913,118.34$ | $\$ 1,652,461.39$ |
| 193 | $\$ 1,622,403.20$ | 193 | $\$ 918,923.90$ | $\$ 1,659,859.37$ |
| 194 | $\$ 1,650,899.79$ | 194 | $\$ 947,414.13$ | $\$ 1,688,355.95$ |
| 195 | $\$ 1,662,103.65$ | 195 | $\$ 951,272.32$ | $\$ 1,699,559.81$ |
| 196 | $\$ 1,659,739.94$ | 196 | $\$ 963,333.25$ | $\$ 1,697,196.11$ |
| 197 | $\$ 1,662,460.46$ | 197 | $\$ 961,368.86$ | $\$ 1,697,296.11$ |
| 198 | $\$ 1,685,883.06$ | 198 | $\$ 974,125.15$ | $\$ 1,720,718.71$ |
| 199 | $\$ 1,688,153.35$ | 199 | $\$ 974,225.15$ | $\$ 1,722,989$ |
| 200 | $\$ 1,713,273.70$ | 200 | $\$ 992,964.35$ | $\$ 1,748,109.34$ |


3. 5 Feat 75

| Day | Agent5405 | Baseline |  |
| ---: | ---: | ---: | ---: |
| 1 | $\$ 1,301.27$ | $\$ 1,433.09$ | Phase 3 |
| 2 | $\$ 1,646.33$ | $\$ 1,433.09$ |  |
| 3 | $\$ 2,223.08$ | $\$ 2,258.99$ | $\$ 2,356.32$ |
| 4 | $\$ 2,721$ | $\$ 2,747.29$ | $\$ 2,849.25$ |
| 5 | $\$ 2,812.96$ | $\$ 2,839.25$ | $\$ 2,941.21$ |
| 6 | $\$ 3,222.28$ | $\$ 3,229.43$ | $\$ 3,349.87$ |
| 7 | $\$ 3,967.04$ | $\$ 3,908.60$ | $\$ 4,199.36$ |
| 8 | $\$ 4,013.43$ | $\$ 3,859.97$ | $\$ 4,293.37$ |
| 9 | $\$ 4,985.68$ | $\$ 4,836.56$ | $\$ 5,394.89$ |
| 10 | $\$ 5,369.01$ | $\$ 5,216.93$ | $\$ 5,751.73$ |
| 190 | $\$ 2,696,118.09$ | $\$ 2,125,867.18$ | $\$ 2,726,546.84$ |
| 191 | $\$ 2,714,544.89$ | $\$ 2,143,612.99$ | $\$ 2,744,973.64$ |
| 192 | $\$ 2,736,279.28$ | $\$ 2,164,636.89$ | $\$ 2,766,708.04$ |
| 193 | $\$ 2,747,512.34$ | $\$ 2,184,987.46$ | $\$ 2,777,941.09$ |
| 194 | $\$ 2,768,407.38$ | $\$ 2,204,019.43$ | $\$ 2,798,836.13$ |
| 195 | $\$ 2,778,299.50$ | $\$ 2,211,963.16$ | $\$ 2,808,728.26$ |
| 196 | $\$ 2,793,131.69$ | $\$ 2,224,024.09$ | $\$ 2,821,282.54$ |
| 197 | $\$ 2,810,319.14$ | $\$ 2,238,591.02$ | $\$ 2,838,469.99$ |
| 198 | $\$ 2,819,132.67$ | $\$ 2,247,404.55$ | $\$ 2,847,283.52$ |
| 199 | $\$ 2,828,429.54$ | $\$ 2,256,105.96$ | $\$ 2,856,580.39$ |
| 200 | $\$ 2,851,288.28$ | $\$ 2,274,845.17$ | $\$ 2,879,829.68$ |


4. 10 Feat 25

| Day | Agent5405 | Baseline | Phase 3 |
| ---: | ---: | ---: | ---: |
| 1 | $\$ 1,100$ | $\$ 1,089.62$ | $\$ 1,100$ |
| 2 | $\$ 1,232.04$ | $\$ 1,189.62$ | $\$ 1,232.04$ |
| 3 | $\$ 1,426.06$ | $\$ 1,271.76$ | $\$ 1,427.66$ |
| 4 | $\$ 1,729.54$ | $\$ 1,562.68$ | $\$ 1,731.14$ |
| 5 | $\$ 1,850.95$ | $\$ 1,658.71$ | $\$ 1,852.55$ |
| 6 | $\$ 1,950.95$ | $\$ 1,740.15$ | $\$ 1,952.55$ |
| 7 | $\$ 2,559.70$ | $\$ 2,134.48$ | $\$ 2,620.82$ |
| 8 | $\$ 2,710.31$ | $\$ 2,153.18$ | $\$ 2,889.29$ |
| 9 | $\$ 2,810.31$ | $\$ 2,192.27$ | $\$ 2,947.87$ |
| 10 | $\$ 3,081.33$ | $\$ 2,223.34$ | $\$ 3,270.54$ |
| 190 | $\$ 116,489.72$ | $\$ 63,232.88$ | $\$ 422,457.66$ |
| 191 | $\$ 115,908.73$ | $\$ 62,643.03$ | $\$ 425,781.44$ |
| 192 | $\$ 116,008.73$ | $\$ 62,668.62$ | $\$ 425,881.44$ |
| 193 | $\$ 124,416.70$ | $\$ 62,695.32$ | $\$ 433,613.54$ |
| 194 | $\$ 137,297.32$ | $\$ 61,239.71$ | $\$ 446,494.17$ |
| 195 | $\$ 138,161.71$ | $\$ 60,964.75$ | $\$ 448,542.56$ |
| 196 | $\$ 142,191.23$ | $\$ 61,064.75$ | $\$ 447,177.53$ |
| 197 | $\$ 144,911.75$ | $\$ 61,164.75$ | $\$ 449,898.05$ |
| 198 | $\$ 145,011.75$ | $\$ 60,358.57$ | $\$ 456,010.40$ |
| 199 | $\$ 145,542.64$ | $\$ 60,458.57$ | $\$ 457,102.01$ |
| 200 | $\$ 145,642.64$ | $\$ 60,429.42$ | $\$ 457,349.45$ |



| Day | Agent5405 | Baseline | Phase 3 |
| ---: | ---: | ---: | ---: |
| 1 | $\$ 1,106.29$ | $\$ 994.51$ | $\$ 1,100$ |
| 2 | $\$ 1,272.76$ | $\$ 1,218.91$ | $\$ 1,296.96$ |
| 3 | $\$ 1,372.76$ | $\$ 1,253.49$ | $\$ 1,353.82$ |
| 4 | $\$ 1,729.34$ | $\$ 1,544.41$ | $\$ 1,725.95$ |
| 5 | $\$ 1,839.83$ | $\$ 1,639.01$ | $\$ 1,851.11$ |
| 6 | $\$ 2,158.90$ | $\$ 1,897.84$ | $\$ 2,151.24$ |
| 7 | $\$ 2,768.55$ | $\$ 2,243.96$ | $\$ 2,776.55$ |
| 8 | $\$ 3,042.31$ | $\$ 2,725.16$ | $\$ 3,040.82$ |
| 9 | $\$ 3,454.15$ | $\$ 2,671.09$ | $\$ 3,096.86$ |
| 10 | $\$ 4,418.73$ | $\$ 3,506.69$ | $\$ 3,871.72$ |
| 190 | $\$ 1,025,404.42$ | $\$ 899,358.93$ | $\$ 1,585,767.04$ |
| 191 | $\$ 1,026,482.86$ | $\$ 901,364.21$ | $\$ 1,595,082.36$ |
| 192 | $\$ 1,048,191.44$ | $\$ 915,022.13$ | $\$ 1,616,790.94$ |
| 193 | $\$ 1,048,291.44$ | $\$ 913,195.59$ | $\$ 1,614,964.39$ |
| 194 | $\$ 1,055,992.98$ | $\$ 914,835.19$ | $\$ 1,629,461.58$ |
| 195 | $\$ 1,065,248.44$ | $\$ 924,090.65$ | $\$ 1,638,717.04$ |
| 196 | $\$ 1,073,379.85$ | $\$ 930,166.24$ | $\$ 1,646,848.44$ |
| 197 | $\$ 1,083,974.90$ | $\$ 928,201.85$ | $\$ 1,657,443.50$ |
| 198 | $\$ 1,090,718.84$ | $\$ 932,479.58$ | $\$ 1,664,187.44$ |
| 199 | $\$ 1,092,107.12$ | $\$ 932,579.58$ | $\$ 1,664,287.44$ |
| 200 | $\$ 1,094,468.72$ | $\$ 932,436.47$ | $\$ 1,668,506.98$ |


6. 10 Feat 75

| Day | Agent5405 | Baseline | Phase 3 |  |
| ---: | ---: | ---: | ---: | :---: |
| 1 | $\$ 1,328.35$ | $\$ 1,286.90$ | $\$ 1,328.35$ |  |
| 2 | $\$ 1,638.98$ | $\$ 1,584.52$ | $\$ 1,638.98$ |  |
| 3 | $\$ 2,096.17$ | $\$ 2,176.96$ | $\$ 2,310.91$ |  |
| 4 | $\$ 2,610.70$ | $\$ 2,657.71$ | $\$ 2,880.99$ |  |
| 5 | $\$ 2,773.21$ | $\$ 3,255.28$ | $\$ 3,607.68$ |  |
| 6 | $\$ 3,167.40$ | $\$ 3,621.67$ | $\$ 4,055.90$ |  |
| 7 | $\$ 3,815.83$ | $\$ 4,585.24$ | $\$ 5,133.38$ |  |
| 8 | $\$ 4,248.65$ | $\$ 6,049.26$ | $\$ 6,905.40$ |  |
| 9 | $\$ 5,202.34$ | $\$ 7,736.34$ | $\$ 8,786.33$ |  |
| 10 | $\$ 6,393.49$ | $\$ 10,556.09$ | $\$ 11,981.72$ |  |
| 190 | $\$ 2,172,895.41$ | $\$ 2,151,458.74$ | $\$ 2,845,873.40$ |  |
| 191 | $\$ 2,182,846.34$ | $\$ 2,150,338.94$ | $\$ 2,856,730.39$ |  |
| 192 | $\$ 2,172,549.14$ | $\$ 2,152,949.85$ | $\$ 2,846,433.18$ |  |
| 193 | $\$ 2,185,267.60$ | $\$ 2,157,074.85$ | $\$ 2,859,151.65$ |  |
| 194 | $\$ 2,186,532.97$ | $\$ 2,148,852.03$ | $\$ 2,863,546.28$ |  |
| 195 | $\$ 2,200,762.08$ | $\$ 2,166,704.49$ | $\$ 2,881,398.75$ |  |
| 196 | $\$ 2,203,139.98$ | $\$ 2,172,780.08$ | $\$ 2,889,752.24$ |  |
| 197 | $\$ 2,217,148.40$ | $\$ 2,189,967.53$ | $\$ 2,903,760.66$ |  |
| 198 | $\$ 2,249,571.60$ | $\$ 2,217,034.67$ | $\$ 2,936,183.86$ |  |
| 199 | $\$ 2,258,978.07$ | $\$ 2,225,736.09$ | $\$ 2,946,472.34$ |  |
| 200 | $\$ 2,266,482.05$ | $\$ 2,247,605.40$ | $\$ 2,953,976.32$ |  |



Learning was done by saving the training data into the agent.
When the probability of good was called, the naïve Bayes was recalculated from the formula each time. This agent beat all other agents in all test cases.

