

Stock Portfolio Test Case Report

Submitted By:

1. Rishabh Malviya (018190419)
2. Adityaraj Kaushik (017631471)
3. Shanmukha Manoj Kakani (018195645)
4. Vineela Mukkamala(018217992)

Test Case 1: Ethical + Growth Investing (\$10,000)

Input Parameters :

- Investment Amount: \$10,000
- Selected Strategies: Ethical Investing, Growth Investing

Expected Allocation :

- Total Stocks: 6 (AAPL, ADBE, NSRGY, TSLA, NVDA, AMZN)
- Each stock receives a weighted portion based on risk-adjusted metrics.

Observed Application Behavior

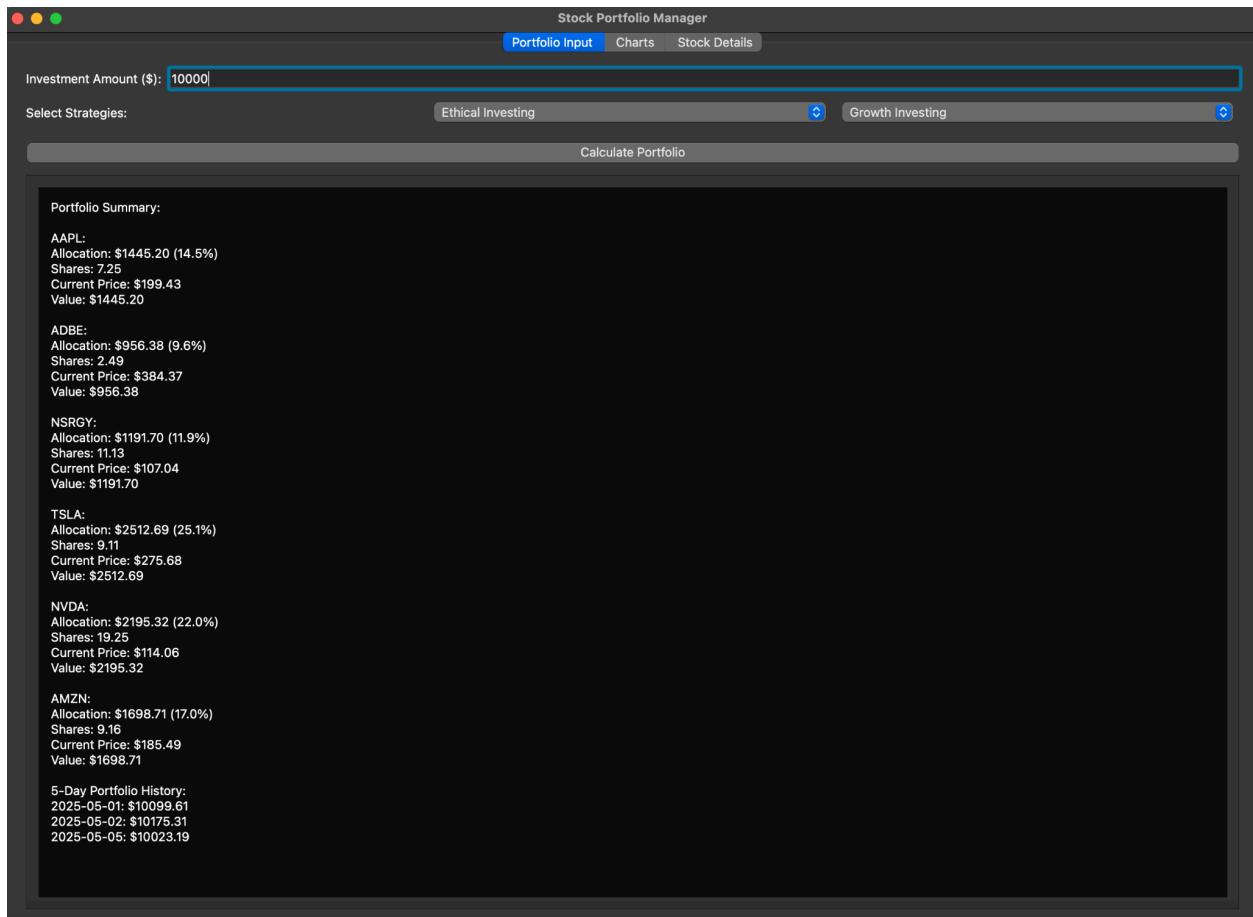
1. Portfolio Summary (Tab: Portfolio Input):

Shows:

- Allocated amount per stock:
 - AAPL: 14.5% = **\$1445.20**
 - ADBE: 9.6% = **\$956.38**
 - NSRGY: 11.9% = **\$1191.70**
 - TSLA: 25.1% = **\$2512.69**
 - NVDA: 22.0% = **\$2195.32**
 - AMZN: 17.0% = **\$1698.71**

- Shares calculated accurately:
 - AAPL: 7.25 shares @ \$199.43
 - ADBE: 2.49 shares @ \$384.37

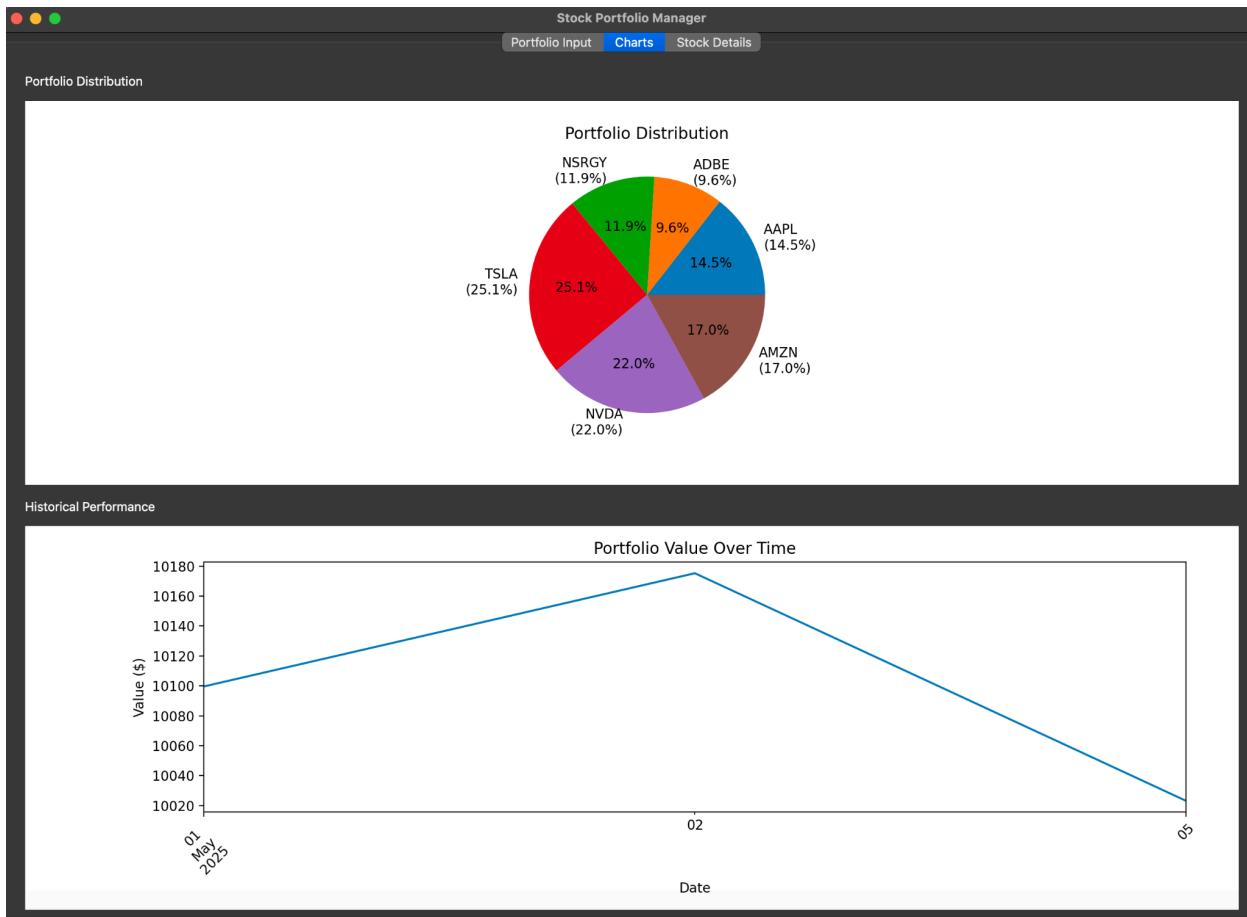
- NSRGY: 11.13 shares @ \$107.04
- TSLA: 9.11 shares @ \$275.68
- NVDA: 19.25 shares @ \$114.06
- AMZN: 9.16 shares @ \$185.49
- Portfolio Value Over Time:
 - May 1: **\$10099.61**
 - May 2: **\$10175.31**
 - May 5: **\$10023.19**



2. Visualization (Tab: Charts)

- **Pie Chart:** Displays allocation percentages for each stock with correct labels and color-coded segments

- **Line Graph:** "Portfolio Value Over Time" shows 3-day portfolio fluctuations from May 1–May 5



3. Portfolio Performance (Charts Tab):

- Line graph shows a **peak on May 2, 2025**, followed by a drop on May 5
- Y-axis range: approx. \$10020 – \$10180 (realistic fluctuation)
- X-axis includes 3 distinct dates (May 01, May 02, May 05)

4. 5-Day Trading Data (Stock Details Tab)

- 13 rows of recent trading data (AAPL, ADBE, NSRGY)
- Matches realistic open/high/low/close prices and volumes

- Confirms correct API integration for time-series financial data

Stock Portfolio Manager																																																																																																																						
	Stock Details																																																																																																																					
Last 5 Days Trading Data																																																																																																																						
<table border="1"> <thead> <tr> <th></th> <th>Symbol</th> <th>Date</th> <th>Open</th> <th>High</th> <th>Low</th> <th>Close</th> <th>Volume</th> </tr> </thead> <tbody> <tr><td>1</td><td>AAPL</td><td>2025-04-30</td><td>\$209.30</td><td>\$213.58</td><td>\$206.67</td><td>\$212.50</td><td>52,286,500.0</td></tr> <tr><td>2</td><td>AAPL</td><td>2025-05-01</td><td>\$209.08</td><td>\$214.56</td><td>\$208.90</td><td>\$213.32</td><td>57,365,700.0</td></tr> <tr><td>3</td><td>AAPL</td><td>2025-05-02</td><td>\$206.09</td><td>\$206.99</td><td>\$202.16</td><td>\$205.35</td><td>101,010,600.0</td></tr> <tr><td>4</td><td>AAPL</td><td>2025-05-05</td><td>\$203.10</td><td>\$204.10</td><td>\$198.21</td><td>\$198.89</td><td>68,915,400.0</td></tr> <tr><td>5</td><td>AAPL</td><td>2025-05-06</td><td>\$198.12</td><td>\$200.65</td><td>\$197.02</td><td>\$199.43</td><td>35,252,934.0</td></tr> <tr><td>6</td><td>ADBE</td><td>2025-04-30</td><td>\$366.87</td><td>\$376.00</td><td>\$363.56</td><td>\$374.98</td><td>3,305,500.0</td></tr> <tr><td>7</td><td>ADBE</td><td>2025-05-01</td><td>\$378.30</td><td>\$380.44</td><td>\$374.07</td><td>\$374.63</td><td>2,848,800.0</td></tr> <tr><td>8</td><td>ADBE</td><td>2025-05-02</td><td>\$380.09</td><td>\$383.56</td><td>\$379.19</td><td>\$380.87</td><td>2,340,700.0</td></tr> <tr><td>9</td><td>ADBE</td><td>2025-05-05</td><td>\$379.29</td><td>\$384.54</td><td>\$378.40</td><td>\$381.06</td><td>2,094,300.0</td></tr> <tr><td>10</td><td>ADBE</td><td>2025-05-06</td><td>\$376.57</td><td>\$386.52</td><td>\$375.05</td><td>\$384.37</td><td>1,416,814.0</td></tr> <tr><td>11</td><td>NSRGY</td><td>2025-04-30</td><td>\$105.89</td><td>\$106.82</td><td>\$105.17</td><td>\$106.59</td><td>287,800.0</td></tr> <tr><td>12</td><td>NSRGY</td><td>2025-05-01</td><td>\$108.08</td><td>\$108.10</td><td>\$105.40</td><td>\$105.51</td><td>287,300.0</td></tr> <tr><td>13</td><td>NSRGY</td><td>2025-05-02</td><td>\$106.28</td><td>\$106.49</td><td>\$105.68</td><td>\$105.81</td><td>240,600.0</td></tr> </tbody> </table>								Symbol	Date	Open	High	Low	Close	Volume	1	AAPL	2025-04-30	\$209.30	\$213.58	\$206.67	\$212.50	52,286,500.0	2	AAPL	2025-05-01	\$209.08	\$214.56	\$208.90	\$213.32	57,365,700.0	3	AAPL	2025-05-02	\$206.09	\$206.99	\$202.16	\$205.35	101,010,600.0	4	AAPL	2025-05-05	\$203.10	\$204.10	\$198.21	\$198.89	68,915,400.0	5	AAPL	2025-05-06	\$198.12	\$200.65	\$197.02	\$199.43	35,252,934.0	6	ADBE	2025-04-30	\$366.87	\$376.00	\$363.56	\$374.98	3,305,500.0	7	ADBE	2025-05-01	\$378.30	\$380.44	\$374.07	\$374.63	2,848,800.0	8	ADBE	2025-05-02	\$380.09	\$383.56	\$379.19	\$380.87	2,340,700.0	9	ADBE	2025-05-05	\$379.29	\$384.54	\$378.40	\$381.06	2,094,300.0	10	ADBE	2025-05-06	\$376.57	\$386.52	\$375.05	\$384.37	1,416,814.0	11	NSRGY	2025-04-30	\$105.89	\$106.82	\$105.17	\$106.59	287,800.0	12	NSRGY	2025-05-01	\$108.08	\$108.10	\$105.40	\$105.51	287,300.0	13	NSRGY	2025-05-02	\$106.28	\$106.49	\$105.68	\$105.81	240,600.0
	Symbol	Date	Open	High	Low	Close	Volume																																																																																																															
1	AAPL	2025-04-30	\$209.30	\$213.58	\$206.67	\$212.50	52,286,500.0																																																																																																															
2	AAPL	2025-05-01	\$209.08	\$214.56	\$208.90	\$213.32	57,365,700.0																																																																																																															
3	AAPL	2025-05-02	\$206.09	\$206.99	\$202.16	\$205.35	101,010,600.0																																																																																																															
4	AAPL	2025-05-05	\$203.10	\$204.10	\$198.21	\$198.89	68,915,400.0																																																																																																															
5	AAPL	2025-05-06	\$198.12	\$200.65	\$197.02	\$199.43	35,252,934.0																																																																																																															
6	ADBE	2025-04-30	\$366.87	\$376.00	\$363.56	\$374.98	3,305,500.0																																																																																																															
7	ADBE	2025-05-01	\$378.30	\$380.44	\$374.07	\$374.63	2,848,800.0																																																																																																															
8	ADBE	2025-05-02	\$380.09	\$383.56	\$379.19	\$380.87	2,340,700.0																																																																																																															
9	ADBE	2025-05-05	\$379.29	\$384.54	\$378.40	\$381.06	2,094,300.0																																																																																																															
10	ADBE	2025-05-06	\$376.57	\$386.52	\$375.05	\$384.37	1,416,814.0																																																																																																															
11	NSRGY	2025-04-30	\$105.89	\$106.82	\$105.17	\$106.59	287,800.0																																																																																																															
12	NSRGY	2025-05-01	\$108.08	\$108.10	\$105.40	\$105.51	287,300.0																																																																																																															
13	NSRGY	2025-05-02	\$106.28	\$106.49	\$105.68	\$105.81	240,600.0																																																																																																															
Stock information																																																																																																																						
<table border="1"> <thead> <tr> <th></th> <th>Symbol</th> <th>Market Cap</th> <th>P/E Ratio</th> <th>Dividend Yield</th> <th>52W High</th> <th>52W Low</th> <th>Avg Volume</th> </tr> </thead> <tbody> <tr><td>1</td><td>AAPL</td><td>\$2978.50B</td><td>23.997581</td><td>52.00%</td><td>\$260.10</td><td>\$169.21</td><td>60,393,591</td></tr> <tr><td>2</td><td>ADBE</td><td>\$163.82B</td><td>18.704136</td><td>0.00%</td><td>\$587.75</td><td>\$332.01</td><td>3,918,206</td></tr> <tr><td>3</td><td>NSRGY</td><td>\$275.38B</td><td>19.426497</td><td>320.00%</td><td>\$110.46</td><td>\$80.11</td><td>700,203</td></tr> <tr><td>4</td><td>TSLA</td><td>\$887.78B</td><td>85.06929</td><td>0.00%</td><td>\$488.54</td><td>\$167.41</td><td>121,357,603</td></tr> <tr><td>5</td><td>NVDA</td><td>\$2782.82B</td><td>27.682041</td><td>4.00%</td><td>\$153.13</td><td>\$86.62</td><td>286,002,413</td></tr> <tr><td>6</td><td>AMZN</td><td>\$1969.13B</td><td>30.159348</td><td>0.00%</td><td>\$242.52</td><td>\$151.61</td><td>51,397,961</td></tr> </tbody> </table>									Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume	1	AAPL	\$2978.50B	23.997581	52.00%	\$260.10	\$169.21	60,393,591	2	ADBE	\$163.82B	18.704136	0.00%	\$587.75	\$332.01	3,918,206	3	NSRGY	\$275.38B	19.426497	320.00%	\$110.46	\$80.11	700,203	4	TSLA	\$887.78B	85.06929	0.00%	\$488.54	\$167.41	121,357,603	5	NVDA	\$2782.82B	27.682041	4.00%	\$153.13	\$86.62	286,002,413	6	AMZN	\$1969.13B	30.159348	0.00%	\$242.52	\$151.61	51,397,961																																																							
	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume																																																																																																															
1	AAPL	\$2978.50B	23.997581	52.00%	\$260.10	\$169.21	60,393,591																																																																																																															
2	ADBE	\$163.82B	18.704136	0.00%	\$587.75	\$332.01	3,918,206																																																																																																															
3	NSRGY	\$275.38B	19.426497	320.00%	\$110.46	\$80.11	700,203																																																																																																															
4	TSLA	\$887.78B	85.06929	0.00%	\$488.54	\$167.41	121,357,603																																																																																																															
5	NVDA	\$2782.82B	27.682041	4.00%	\$153.13	\$86.62	286,002,413																																																																																																															
6	AMZN	\$1969.13B	30.159348	0.00%	\$242.52	\$151.61	51,397,961																																																																																																															

Test Case 2: Index + Value Investing (\$5,500):

Input Parameters:

- **Investment Amount:** \$5,500
- **Selected Strategies:** Index Investing + Value Investing

Expected Allocation:

- Total Stocks: **6** (VTI, IXUS, ILTB, BRK-B, JPM, PG)
- Each stock receives a weighted portion based on historical data, risk-adjusted returns, and diversification thresholds.

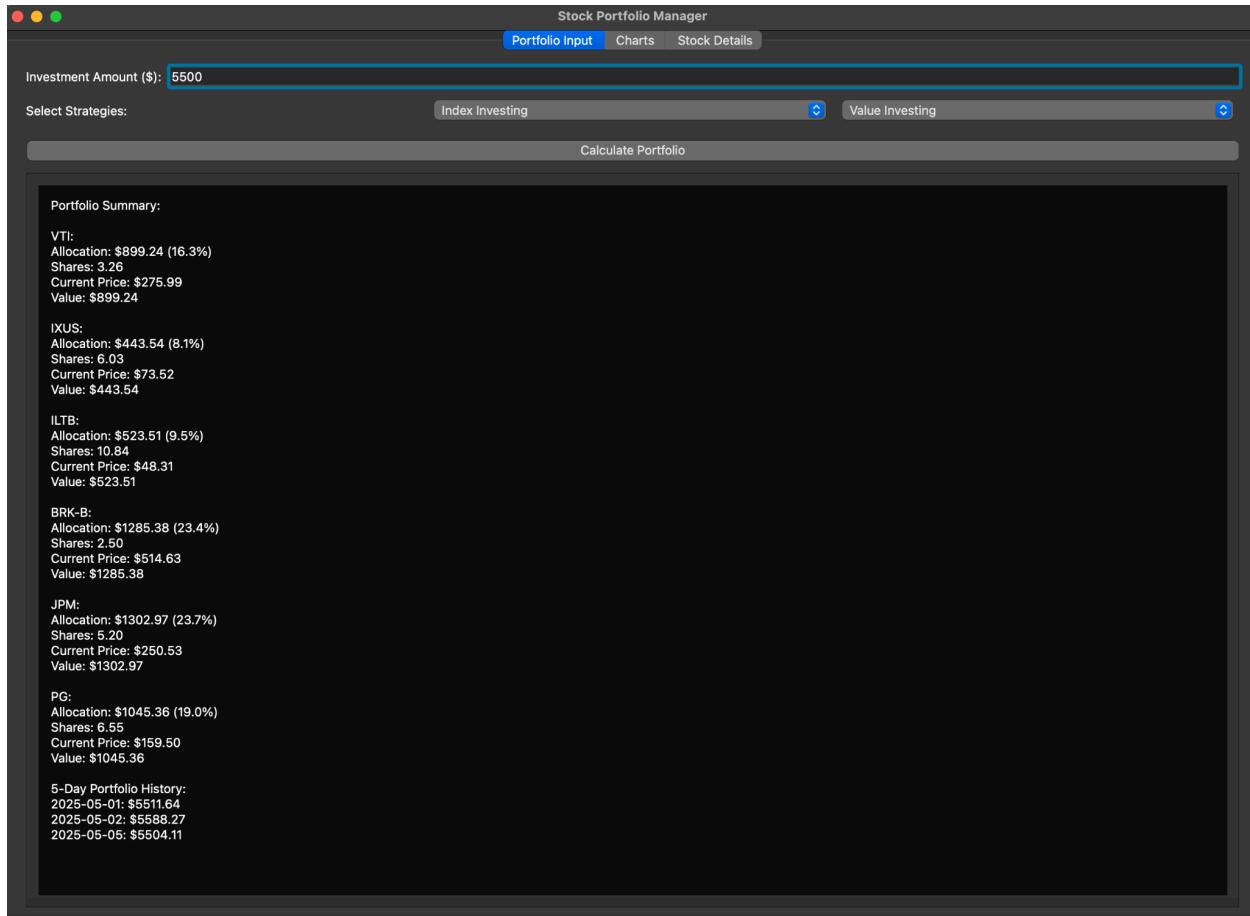
Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input):

Shows:

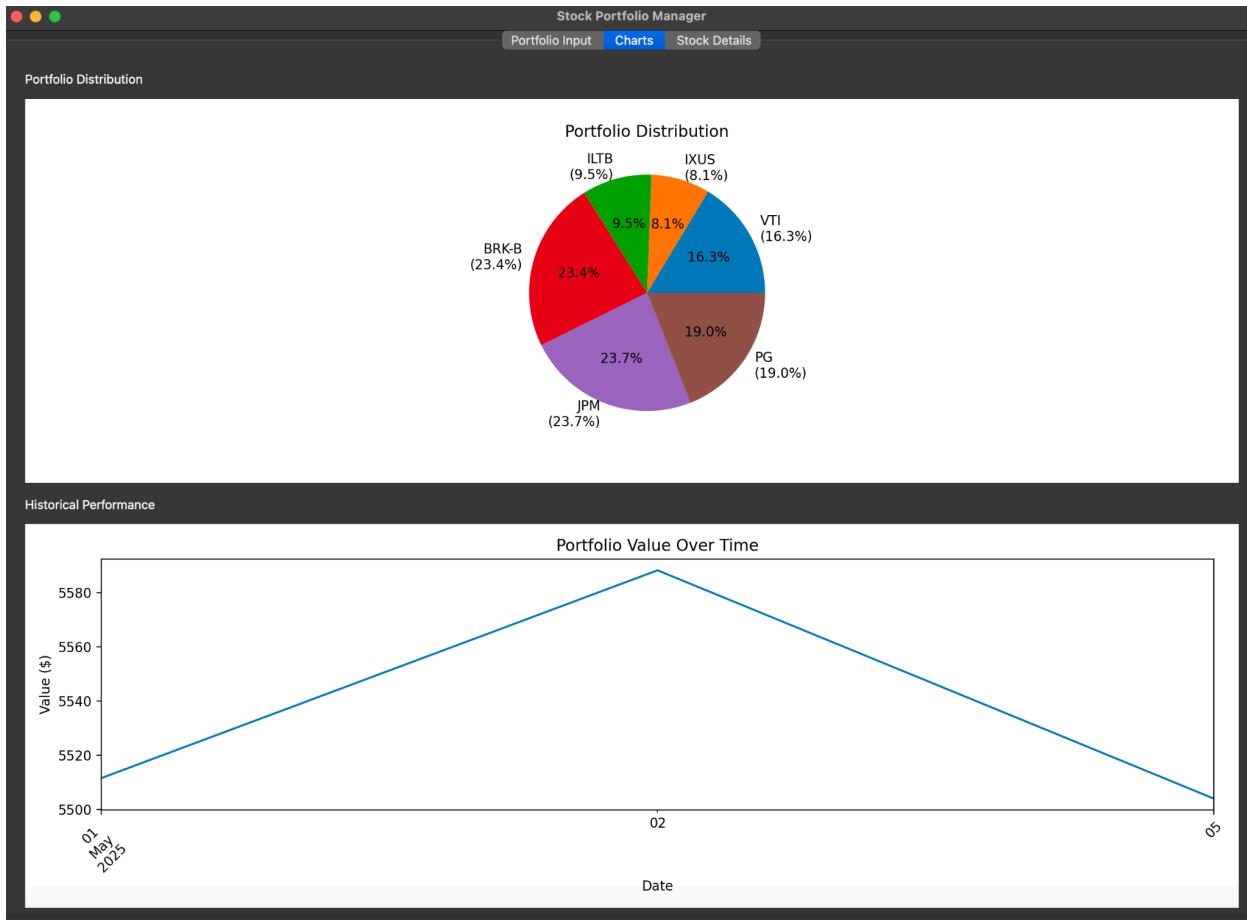
- Allocated amount per stock:
 - VTI: 16.3% = **\$899.24**
 - IXUS: 8.1% = **\$443.54**
 - ILTB: 9.5% = **\$523.51**
 - BRK-B: 23.4% = **\$1285.38**
 - JPM: 23.7% = **\$1302.97**
 - PG: 19.0% = **\$1045.36**
- Shares calculated correctly from price:
 - VTI: 3.26 shares @ \$275.99
 - IXUS: 6.03 shares @ \$73.52
 - ILTB: 10.84 shares @ \$48.31
 - BRK-B: 2.50 shares @ \$514.63
 - JPM: 5.20 shares @ \$250.53
 - PG: 6.55 shares @ \$159.50
- Portfolio history correctly tracked:

- May 1: \$5511.64
- May 2: \$5588.27
- May 5: \$5504.11



2. Portfolio Distribution & Historical Performance (Tab: Charts):

- Pie chart shows correct percentage allocation for all six stocks
- Line graph visualizes 5-day trend — peaking on May 2 and dipping by May 5
- Y-axis range dynamically scaled to reflect actual performance variation (~\$5500–\$5600)



3. Stock Details (Tab: Stock Details):

- **Last 5 Days Trading Data:**

Includes open, high, low, close, volume for VTI, IXUS, ILTB
Example:

- VTI on May 2: Open \$277.62, Close \$278.80
- ILTB on May 2: Open \$48.45, Close \$48.40

- **Stock Information Table:**

- Shows Market Cap, Dividend Yield, 52W High/Low, and Avg Volume
- Example entries:
 - VTI: \$572.34B, 137% Yield

- JPM: \$696.25B, 222% Yield
- PG: \$373.93B, 266% Yield, 21.49 P/E Ratio

Stock Portfolio Manager

Portfolio Input | Charts | Stock Details

Last 5 Days Trading Data

	Symbol	Date	Open	High	Low	Close	Volume
1	VTI	2025-04-30	\$269.11	\$273.52	\$266.25	\$272.82	4,039,500.0
2	VTI	2025-05-01	\$275.28	\$277.28	\$274.25	\$274.52	3,238,000.0
3	VTI	2025-05-02	\$277.52	\$279.60	\$276.62	\$278.80	3,170,800.0
4	VTI	2025-05-05	\$276.65	\$278.84	\$276.39	\$277.22	2,820,800.0
5	VTI	2025-05-06	\$274.57	\$277.01	\$273.95	\$275.99	2,259,532.0
6	IXUS	2025-04-30	\$71.53	\$72.08	\$71.18	\$71.94	30,256,500.0
7	IXUS	2025-05-01	\$71.98	\$72.13	\$71.63	\$71.73	2,729,700.0
8	IXUS	2025-05-02	\$73.20	\$73.34	\$73.03	\$73.23	3,123,300.0
9	IXUS	2025-05-05	\$73.60	\$73.71	\$73.48	\$73.50	4,742,100.0
10	IXUS	2025-05-06	\$73.34	\$73.61	\$73.26	\$73.51	2,476,740.0
11	ILTB	2025-04-30	\$49.06	\$49.20	\$48.94	\$49.00	36,700.0
12	ILTB	2025-05-01	\$49.03	\$49.03	\$48.53	\$48.68	204,400.0
13	ILTB	2025-05-02	\$48.45	\$48.54	\$48.32	\$48.40	60,200.0

Stock Information

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	VTI	\$572.34B	N/A	137.00%	\$303.39	\$236.42	4,537,713
2	IXUS	\$0.00B	N/A	305.00%	\$73.71	\$61.75	3,272,430
3	ILTB	\$0.00B	N/A	488.00%	\$54.32	\$46.62	70,150
4	BRK-B	\$1111.17B	25.628984	0.00%	\$542.07	\$401.58	5,383,268
5	JPM	\$696.25B	14.96595	222.00%	\$280.25	\$190.88	11,725,200
6	PG	\$373.93B	21.49461	266.00%	\$180.43	\$156.58	8,756,021

Test Case 3: Ethical + Growth Investing (\$7000)

Input Parameters:

- **Investment Amount:** \$7000
- **Selected Strategies:** Ethical Investing, Growth Investing

Expected Allocation:

- **Total Stocks:** 6 (AAPL, ADBE, NSRGY, TSLA, NVDA, AMZN)

- Each stock receives a weighted portion based on risk-adjusted metrics.

Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input)

Allocated amount per stock:

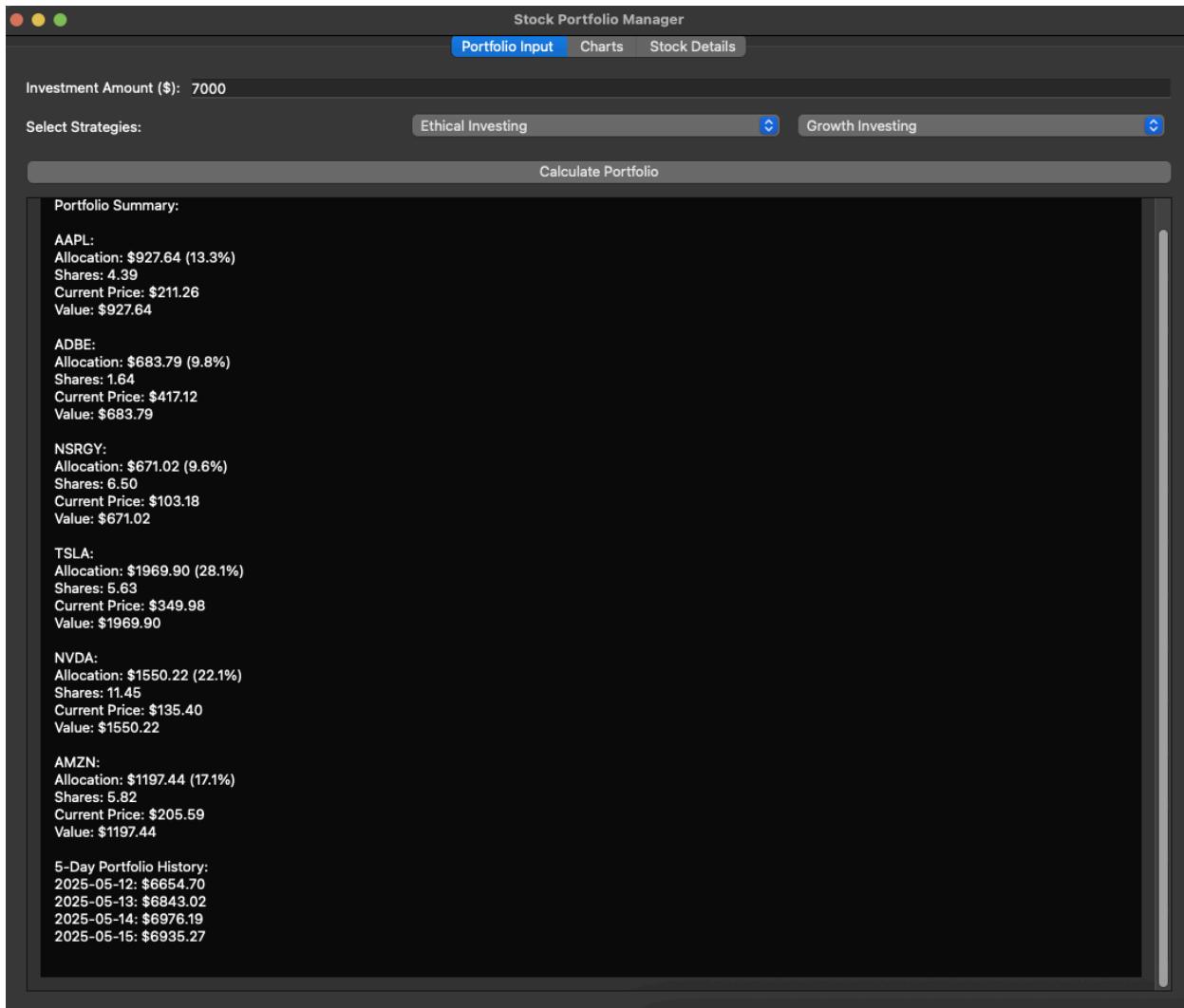
- **AAPL:** 13.3% = **\$927.64**
- **ADBE:** 9.8% = **\$683.79**
- **NSRGY:** 9.6% = **\$671.02**
- **TSLA:** 28.1% = **\$1969.90**
- **NVDA:** 22.1% = **\$1550.22**
- **AMZN:** 17.1% = **\$1197.44**

Shares calculated accurately:

- **AAPL:** 4.39 shares @ \$211.26
- **ADBE:** 1.64 shares @ \$417.12
- **NSRGY:** 6.50 shares @ \$103.18
- **TSLA:** 5.63 shares @ \$349.98
- **NVDA:** 11.45 shares @ \$135.40
- **AMZN:** 5.82 shares @ \$205.59

Portfolio Value Over Time:

- **May 12:** \$6654.70
- **May 13:** \$6843.02
- **May 14:** \$6976.19
- **May 15:** \$6935.27

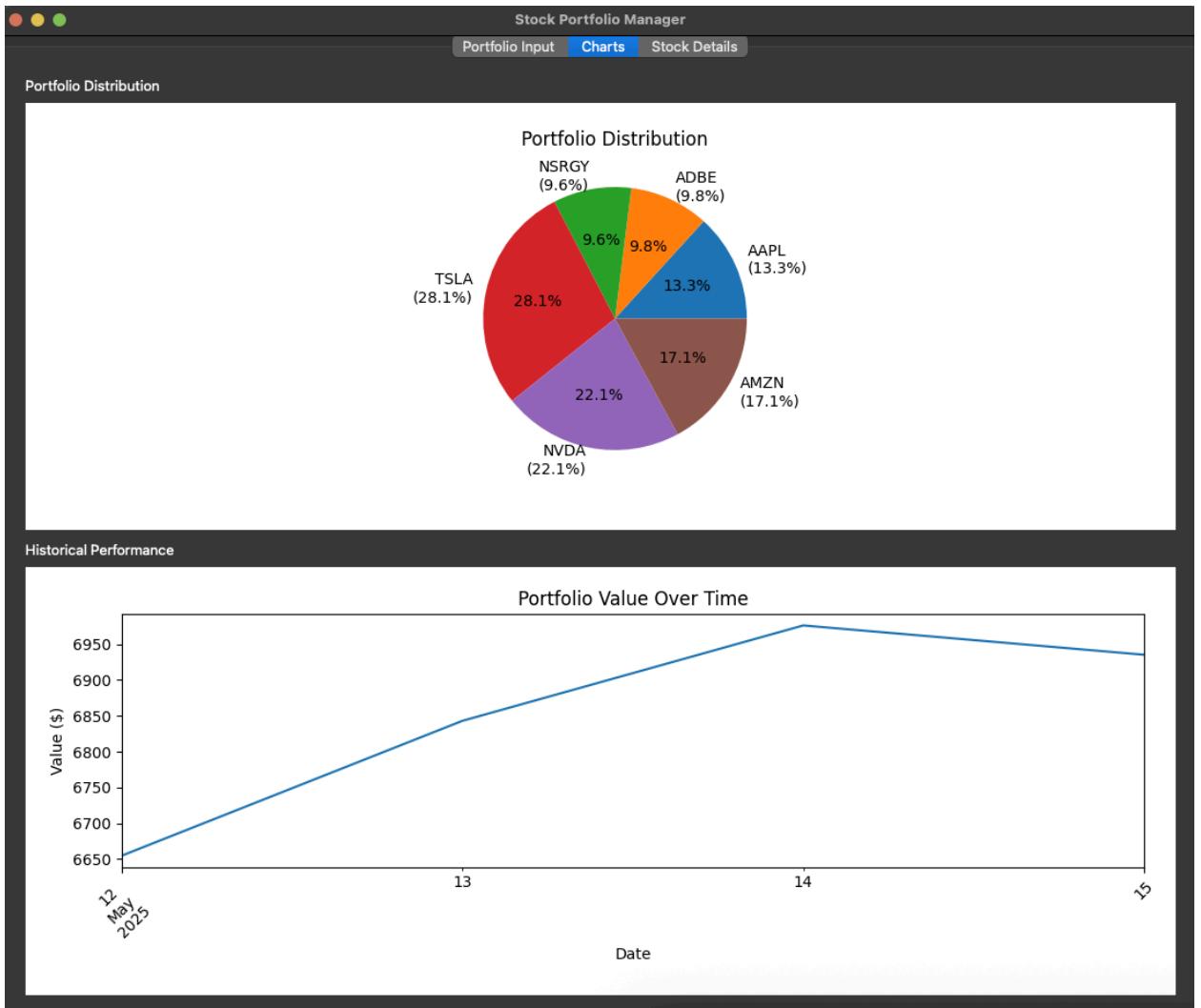


2. Visualization (Tab: Charts)

- Pie Chart:**
Displays allocation percentages for each stock with correct labels and color-coded segments.
- Line Graph: “Portfolio Value Over Time”**
Shows 4-day portfolio fluctuations from May 12–May 15.

Portfolio Performance (Charts Tab)

- Line graph shows a peak on May 14, 2025, followed by a slight decline on May 15.
- Y-axis range: ~\$6650 – \$6980
- X-axis includes 4 dates: (May 12, May 13, May 14, May 15)



3. 5-Day Trading Data (Stock Details Tab)

- AAPL, ADBE, NSRGY shown with:
 - 5 recent days of data
 - Open, High, Low, Close prices
 - Realistic volume figures
- Confirms correct API integration for fetching real-time stock trading data.
- Stock Info section includes:

- Market Cap
- P/E Ratio
- Dividend Yield
- 52W High/Low
- Avg Volume for all 6 stocks

Stock Portfolio Manager

Portfolio Input | Charts | **Stock Details**

Last 5 Days Trading Data

	Symbol	Date	Open	High	Low	Close	Volume
1	AAPL	2025-05-12	\$210.97	\$211.27	\$206.75	\$210.79	63,775,800.0
2	AAPL	2025-05-13	\$210.43	\$213.40	\$209.00	\$212.93	51,909,300.0
3	AAPL	2025-05-14	\$212.43	\$213.94	\$210.58	\$212.33	49,325,800.0
4	AAPL	2025-05-15	\$210.95	\$212.96	\$209.54	\$211.45	45,029,500.0
5	AAPL	2025-05-16	\$212.32	\$212.57	\$209.77	\$211.26	53,164,417.0
6	ADBE	2025-05-12	\$394.33	\$397.82	\$392.76	\$395.94	3,157,700.0
7	ADBE	2025-05-13	\$395.90	\$399.67	\$394.71	\$397.40	2,664,100.0
8	ADBE	2025-05-14	\$396.85	\$400.12	\$396.42	\$399.47	2,409,200.0
9	ADBE	2025-05-15	\$399.35	\$404.85	\$399.35	\$404.89	2,763,800.0
10	ADBE	2025-05-16	\$414.77	\$421.76	\$412.06	\$417.12	5,345,799.0
11	NSRGY	2025-05-12	\$102.59	\$102.59	\$101.41	\$102.19	361,900.0
12	NSRGY	2025-05-13	\$101.98	\$101.98	\$100.83	\$101.11	325,500.0

Stock Information

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	AAPL	\$3155.34B	25.42238	49.00%	\$260.10	\$169.21	60,872,590
2	ADBE	\$177.78B	20.298054	0.00%	\$587.75	\$332.01	3,838,751
3	NSRGY	\$265.45B	18.725952	327.00%	\$110.46	\$80.11	659,803
4	TSLA	\$1127.27B	108.018524	0.00%	\$488.54	\$167.41	122,821,843
5	NVDA	\$3302.08B	32.86408	3.00%	\$153.13	\$86.62	286,168,303
6	AMZN	\$2182.63B	33.429268	0.00%	\$242.52	\$151.61	52,173,369

Test Case 4: Index + Value Investing (\$8000)

Input Parameters:

- **Investment Amount:** \$8000
- **Selected Strategies:** Index Investing, Value Investing

Expected Allocation:

- **Total Stocks:** 6 (VTI, IXUS, ILTB, BRK-B, JPM, PG)
- **Each stock receives a weighted allocation based on index exposure and value-based metrics.**

Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input)

Allocated amount per stock:

- **VTI:** 17.0% = **\$1362.47**
- **IXUS:** 7.9% = **\$632.05**
- **ILTB:** 9.2% = **\$732.49**
- **BRK-B:** 23.0% = **\$1839.18**
- **JPM:** 23.7% = **\$1892.15**
- **PG:** 19.3% = **\$1541.66**

Shares calculated accurately:

- **VTI:** 4.66 shares @ \$292.58
- **IXUS:** 8.46 shares @ \$74.72
- **ILTB:** 15.21 shares @ \$48.17
- **BRK-B:** 3.58 shares @ \$514.31
- **JPM:** 7.07 shares @ \$267.56
- **PG:** 9.44 shares @ \$163.28

Portfolio Value Over Time:

- **May 12:** \$7890.56
- **May 13:** \$7891.16
- **May 14:** \$7868.71
- **May 15:** \$7954.16

The screenshot shows the Stock Portfolio Manager application interface. At the top, there's a navigation bar with tabs for "Portfolio Input", "Charts", and "Stock Details". Below the navigation bar, the "Investment Amount (\$)" field is set to 8000. Under "Select Strategies", there are two options: "Index Investing" and "Value Investing", each with a dropdown arrow. A "Calculate Portfolio" button is located below these controls.

Portfolio Summary:

- VTI:**
Allocation: \$1362.47 (17.0%)
Shares: 4.66
Current Price: \$292.58
Value: \$1362.47
- IXUS:**
Allocation: \$632.05 (7.9%)
Shares: 8.46
Current Price: \$74.72
Value: \$632.05
- ILTB:**
Allocation: \$732.49 (9.2%)
Shares: 15.21
Current Price: \$48.17
Value: \$732.49
- BRK-B:**
Allocation: \$1839.18 (23.0%)
Shares: 3.58
Current Price: \$514.31
Value: \$1839.18
- JPM:**
Allocation: \$1892.15 (23.7%)
Shares: 7.07
Current Price: \$267.56
Value: \$1892.15
- PG:**
Allocation: \$1541.66 (19.3%)
Shares: 9.44
Current Price: \$163.28
Value: \$1541.66

5-Day Portfolio History:

- 2025-05-12: \$7890.56
- 2025-05-13: \$7891.16
- 2025-05-14: \$7868.71
- 2025-05-15: \$7954.16

2. Visualization (Tab: Charts)

- **Pie Chart:**
Shows stock allocations with labeled percentages and clear color-coded segments.

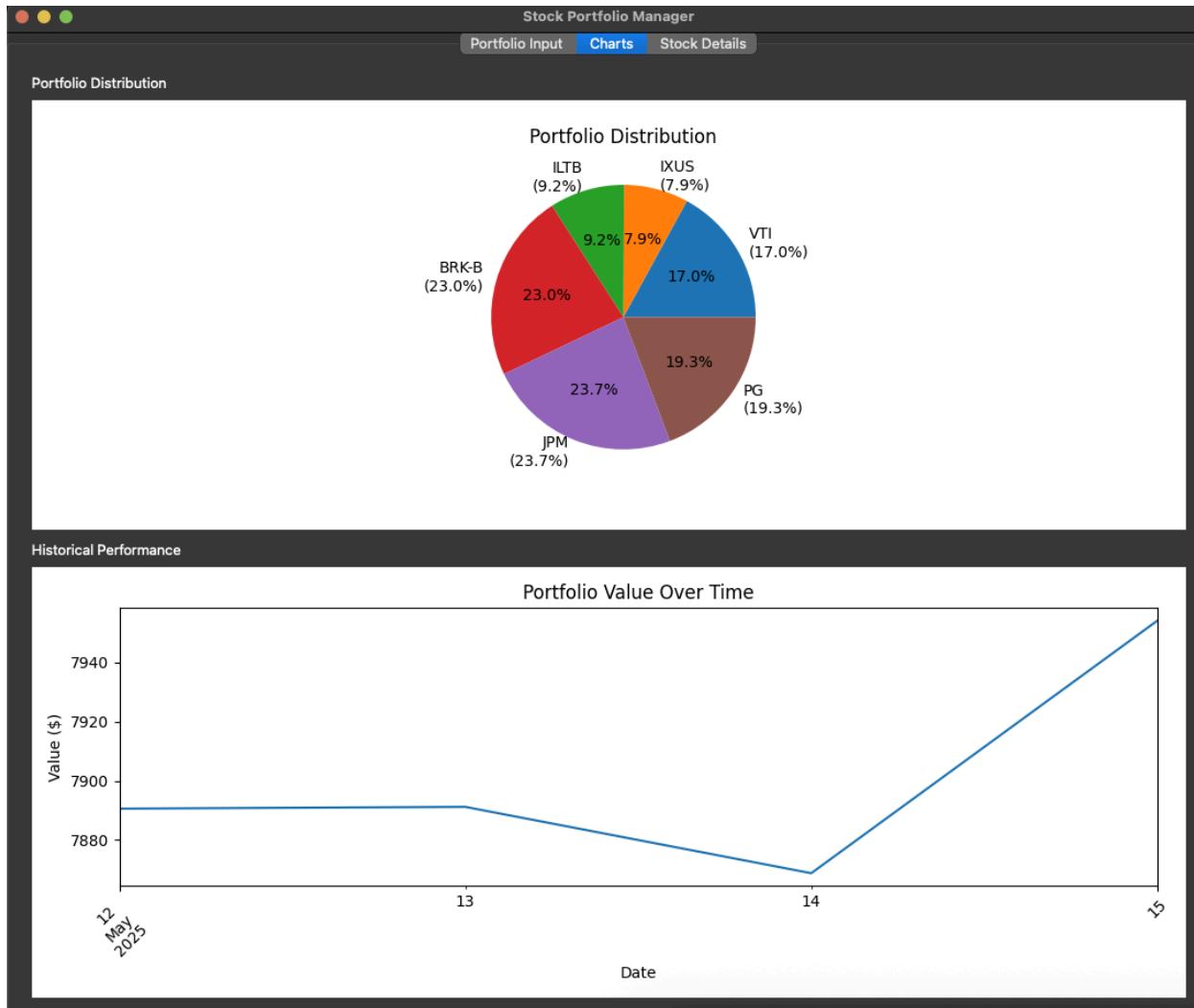
- **Line Graph: “Portfolio Value Over Time”**
Displays 4-day performance trend showing a dip on May 14 followed by a recovery on May 15.

3. Portfolio Performance (Charts Tab)

- **Line graph highlights a low point on May 14**, followed by a rise on May 15, 2025.
- **Y-axis range:** ~\$7860 – \$7960
- **X-axis includes 4 dates:** (May 12, May 13, May 14, May 15)

4. 5-Day Trading Data (Stock Details Tab)

- **Stocks displayed:** VTI, IXUS, ILTB
- **Data includes:** 5-day open, high, low, close prices and volume
- **All prices and volumes are realistic and updated**



5. Stock Information Section

- Includes:
 - **Market Cap**
 - **P/E Ratio**
 - **Dividend Yield**
 - **52-Week High & Low**
 - **Average Volume**

Stock Portfolio Manager

Portfolio Input Charts Stock Details

Last 5 Days Trading Data

	Symbol	Date	Open	High	Low	Close	Volume
1	VTI	2025-05-12	\$286.78	\$287.27	\$284.37	\$287.27	4,184,800.0
2	VTI	2025-05-13	\$287.61	\$290.35	\$287.02	\$289.22	3,286,800.0
3	VTI	2025-05-14	\$289.72	\$290.22	\$288.44	\$289.41	3,198,800.0
4	VTI	2025-05-15	\$288.37	\$290.86	\$288.05	\$290.59	2,347,000.0
5	VTI	2025-05-16	\$291.08	\$292.75	\$290.20	\$292.58	5,425,771.0
6	IXUS	2025-05-12	\$73.90	\$73.95	\$73.47	\$73.95	2,368,300.0
7	IXUS	2025-05-13	\$73.80	\$74.26	\$73.70	\$74.08	1,749,500.0
8	IXUS	2025-05-14	\$74.45	\$74.47	\$73.94	\$74.04	1,528,900.0
9	IXUS	2025-05-15	\$74.38	\$74.61	\$74.15	\$74.61	898,500.0
10	IXUS	2025-05-16	\$74.53	\$74.75	\$74.33	\$74.72	1,705,624.0
11	ILTB	2025-05-12	\$48.07	\$48.25	\$48.00	\$48.00	47,000.0
12	ILTB	2025-05-13	\$48.00	\$48.02	\$47.80	\$47.91	88,500.0

Stock Information

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	VTI	\$606.73B	N/A	137.00%	\$303.39	\$236.42	4,478,203
2	IXUS	\$0.00B	N/A	305.00%	\$74.75	\$61.75	3,213,164
3	ILTB	\$0.00B	N/A	488.00%	\$54.32	\$46.62	69,390
4	BRK-B	\$1108.50B	25.613049	0.00%	\$542.07	\$401.58	5,609,303
5	JPM	\$743.57B	15.9832735	209.00%	\$280.25	\$190.88	11,687,367
6	PG	\$382.82B	22.00539	260.00%	\$180.43	\$156.58	8,717,316

Test Case 5: Index + Value Investing (\$6,000)

Input Parameters

- **Investment Amount: \$6,000**
- **Selected Strategies: Index Investing, Value Investing**

The screenshot shows a user interface for a portfolio management tool. At the top, there are tabs for "Portfolio Input" (which is selected), "Charts", and "Stock Details". Below the tabs, the "Investment Amount (\$)" is set to 6000. A section titled "Select Strategies:" has two options: "Index Investing" and "Value Investing", with "Index Investing" currently selected. A "Calculate Portfolio" button is located below these controls.

The main content area is titled "Portfolio Summary" and contains the following information:

- VTI:**
Allocation: \$1021.85 (17.0%)
Shares: 3.49
Current Price: \$292.58
Value: \$1021.85
- IXUS:**
Allocation: \$474.04 (7.9%)
Shares: 6.34
Current Price: \$74.72
Value: \$474.04
- ILTB:**
Allocation: \$549.37 (9.2%)
Shares: 11.40
Current Price: \$48.17
Value: \$549.37
- BRK-B:**
Allocation: \$1379.39 (23.0%)
Shares: 2.68
Current Price: \$514.31
Value: \$1379.39
- JPM:**
Allocation: \$1419.11 (23.7%)
Shares: 5.30
Current Price: \$267.56
Value: \$1419.11
- PG:**
Allocation: \$1156.24 (19.3%)
Shares: 7.08
Current Price: \$163.28
Value: \$1156.24

Below the individual stock summaries, there is a section titled "5-Day Portfolio History" showing the value of the portfolio on specific dates:

- 2025-05-12: \$5917.92
- 2025-05-13: \$5918.37
- 2025-05-14: \$5901.54
- 2025-05-15: \$5965.62

Expected Allocation

Total Stocks: 6

- **VTI, IXUS, ILTB, BRK-B, JPM, PG**
- **Allocated proportionally based on a combined index and value strategy model**

Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input)

Stock Allocations and Shares:

- **VTI:**
 - **Allocation: 17.0% = \$1021.85**

- **Shares: 3.49 @ \$292.58**
 - **Value: \$1021.85**
- **IXUS:**
 - **Allocation: 7.9% = \$474.04**
 - **Shares: 6.34 @ \$74.72**
 - **Value: \$474.04**
- **ILTB:**
 - **Allocation: 9.2% = \$549.37**
 - **Shares: 11.40 @ \$48.17**
 - **Value: \$549.37**
- **BRK-B:**
 - **Allocation: 23.0% = \$1379.39**
 - **Shares: 2.68 @ \$514.31**
 - **Value: \$1379.39**
- **JPM:**
 - **Allocation: 23.7% = \$1419.11**
 - **Shares: 5.30 @ \$267.56**
 - **Value: \$1419.11**
- **PG:**
 - **Allocation: 19.3% = \$1156.24**
 - **Shares: 7.08 @ \$163.28**
 - **Value: \$1156.24**

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution:

- Slices labeled and color-coded for:
 - VTI (17.0%)
 - IXUS (7.9%)
 - ILTB (9.2%)
 - BRK-B (23.0%)
 - JPM (23.7%)
 - PG (19.3%)

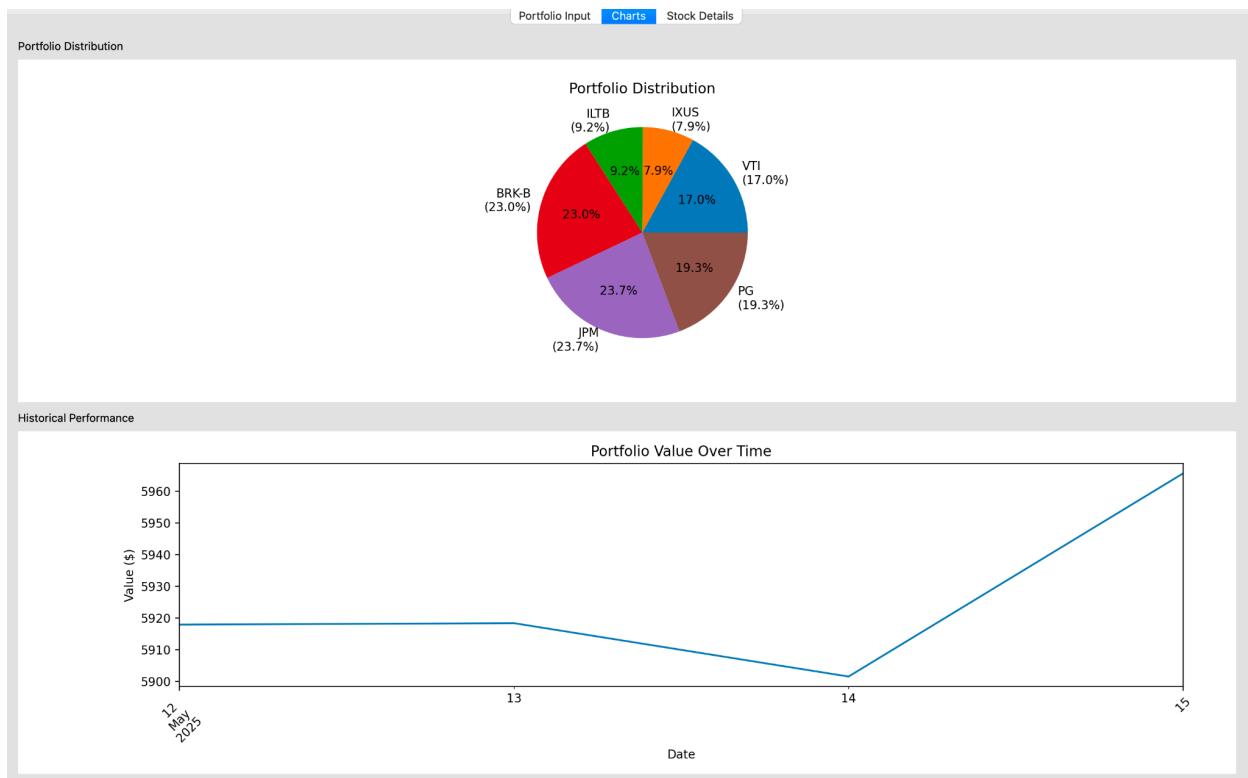
Line Graph – Portfolio Value Over Time:

- Shows value over 4 days from May 12 to May 15, 2025
- Y-axis range: ~\$5900 to \$5960 (realistic daily fluctuation)
- X-axis: 4 distinct dates with tilt for readability
- Value changes:
 - May 12: \$5917.92
 - May 13: \$5918.37
 - May 14: \$5901.54
 - May 15: \$5965.62

3. Portfolio Performance (Charts Tab)

- Trendline:
 - Stable on May 12–13

- Dip on May 14
- Sharp rise on May 15 (recovery)
- Good alignment with realistic market variation



4. 5-Day Trading Data (Stock Details Tab)

Data Displayed for VTI, IXUS, ILTB

- Each shows 5 rows of daily Open/High/Low/Close/Volume
- Dates range: May 12–May 16, 2025
- Data includes high-accuracy price and volume values
- Confirms correct time-series integration with financial API

Last 5 Days Trading Data							
	Symbol	Date	Open	High	Low	Close	Volume
1	VTI	2025-05-12	\$286.78	\$287.27	\$284.37	\$287.27	4,184,800.0
2	VTI	2025-05-13	\$287.61	\$290.35	\$287.02	\$289.22	3,286,800.0
3	VTI	2025-05-14	\$289.72	\$290.22	\$288.44	\$289.41	3,198,800.0
4	VTI	2025-05-15	\$288.37	\$290.86	\$288.05	\$290.59	2,347,000.0
5	VTI	2025-05-16	\$291.08	\$292.75	\$290.20	\$292.58	5,425,771.0
6	IXUS	2025-05-12	\$73.90	\$73.95	\$73.47	\$73.95	2,368,300.0
7	IXUS	2025-05-13	\$73.80	\$74.26	\$73.70	\$74.08	1,749,500.0
8	IXUS	2025-05-14	\$74.45	\$74.47	\$73.94	\$74.04	1,528,900.0
9	IXUS	2025-05-15	\$74.38	\$74.61	\$74.15	\$74.61	898,500.0
10	IXUS	2025-05-16	\$74.53	\$74.75	\$74.33	\$74.72	1,705,624.0
11	ILTB	2025-05-12	\$48.07	\$48.25	\$48.00	\$48.00	47,000.0
12	ILTB	2025-05-13	\$48.00	\$48.02	\$47.80	\$47.91	88,500.0
13	II TR	2025-05-14	\$47.89	\$47.91	\$47.59	\$47.61	23,900.0

Stock Information							
	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	VTI	\$606.73B	N/A	137.00%	\$303.39	\$236.42	4,478,203
2	IXUS	\$0.00B	N/A	305.00%	\$74.75	\$61.75	3,213,164
3	ILTB	\$0.00B	N/A	488.00%	\$54.32	\$46.62	69,390
4	BRK-B	\$1108.50B	25.613049	0.00%	\$542.07	\$401.58	5,609,303
5	JPM	\$743.57B	15.9832738	209.00%	\$280.25	\$190.88	11,687,367
6	PG	\$382.82B	22.00539	260.00%	\$180.43	\$156.58	8,717,316

Test Case 6: Growth + Value Investing (\$9,000)

Input Parameters

- **Investment Amount: \$9,000**
- **Selected Strategies: Growth Investing, Value Investing**

Investment Amount (\$): 9000

Select Strategies: Growth Investing Value Investing

Calculate Portfolio

Portfolio Summary:

- TSLA:**
Allocation: \$2088.92 (23.2%)
Shares: 5.97
Current Price: \$349.98
Value: \$2088.92
- NVDA:**
Allocation: \$1643.88 (18.3%)
Shares: 12.14
Current Price: \$135.40
Value: \$1643.88
- AMZN:**
Allocation: \$1269.78 (14.1%)
Shares: 6.18
Current Price: \$205.59
Value: \$1269.78
- BRK-B:**
Allocation: \$1394.27 (15.5%)
Shares: 2.71
Current Price: \$514.31
Value: \$1394.27
- JPM:**
Allocation: \$1434.43 (15.9%)
Shares: 5.36
Current Price: \$267.56
Value: \$1434.43
- PG:**
Allocation: \$1168.72 (13.0%)
Shares: 7.16
Current Price: \$163.28
Value: \$1168.72

5-Day Portfolio History:

Date	Value
2025-05-12	\$9022.30
2025-05-13	\$8910.78
2025-05-14	\$8936.81
2025-05-15	\$8922.22

Expected Allocation

Total Stocks: 6

- **TSLA, NVDA, AMZN, BRK-B, JPM, PG**
- **Weighted allocations based on blended growth and value factors**

Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input)

Stock Allocations and Shares:

- **TSLA:**
 - **Allocation: 23.2% = \$2088.92**

- **Shares: 5.97 @ \$349.98**
 - **Value: \$2088.92**
- **NVDA:**
 - **Allocation: 18.3% = \$1643.88**
 - **Shares: 12.14 @ \$135.40**
 - **Value: \$1643.88**
- **AMZN:**
 - **Allocation: 14.1% = \$1269.78**
 - **Shares: 6.18 @ \$205.59**
 - **Value: \$1269.78**
- **BRK-B:**
 - **Allocation: 15.5% = \$1394.27**
 - **Shares: 2.71 @ \$514.31**
 - **Value: \$1394.27**
- **JPM:**
 - **Allocation: 15.9% = \$1434.43**
 - **Shares: 5.36 @ \$267.56**
 - **Value: \$1434.43**
- **PG:**
 - **Allocation: 13.0% = \$1168.72**
 - **Shares: 7.16 @ \$163.28**
 - **Value: \$1168.72**

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution:

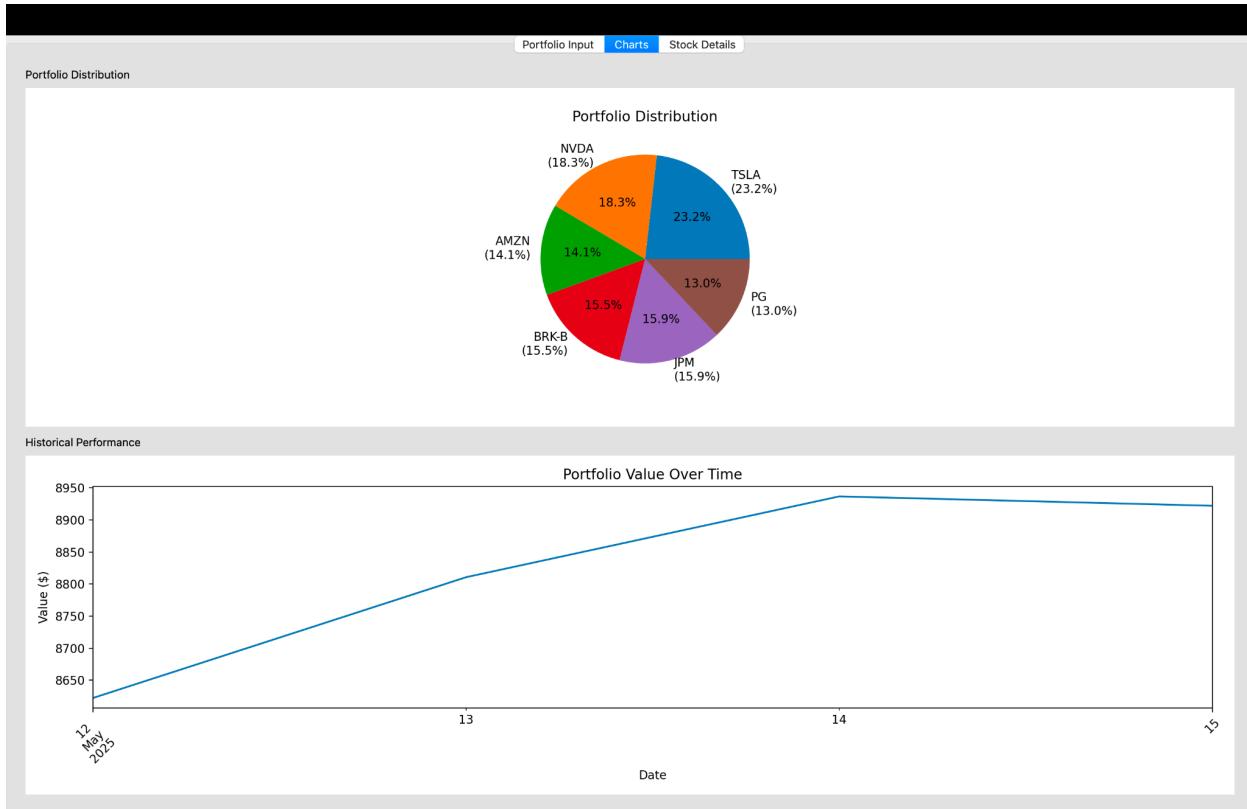
- Clearly labeled pie slices for:
 - TSLA (23.2%)
 - NVDA (18.3%)
 - AMZN (14.1%)
 - BRK-B (15.5%)
 - JPM (15.9%)
 - PG (13.0%)

Line Graph – Portfolio Value Over Time:

- Timeline from May 12 to May 15, 2025
- Y-axis range: ~\$8620 to \$8930
- Portfolio value trajectory:
 - May 12: \$8622.36
 - May 13: \$8810.78
 - May 14: \$8936.81 (peak)
 - May 15: \$8922.22 (slight dip)

3. Portfolio Performance (Charts Tab)

- Growth trend observed through May 12–14
- Slight correction/dip on May 15
- X-axis displays clear date labels; Y-axis is scaled to capture realistic range



4. 5-Day Trading Data (Stock Details Tab)

Stocks with time-series data: TSLA, NVDA, AMZN

- **Realistic Open/High/Low/Close/Volume data**
- **Dates: May 12–16, 2025**
- **Correct integration with external financial API**
- **High volumes and varying prices confirm dynamic market data**

									Portfolio Input	Charts	Stock Details
Last 5 Days Trading Data											
	Symbol	Date	Open	High	Low	Close	Volume				
1	TSLA	2025-05-12	\$321.99	\$322.21	\$311.50	\$318.38	112,826,700.0				
2	TSLA	2025-05-13	\$320.00	\$337.59	\$316.80	\$334.07	136,992,600.0				
3	TSLA	2025-05-14	\$342.50	\$350.00	\$337.00	\$347.68	136,997,300.0				
4	TSLA	2025-05-15	\$340.34	\$346.14	\$334.72	\$342.82	97,882,600.0				
5	TSLA	2025-05-16	\$346.07	\$351.62	\$342.33	\$349.98	90,797,726.0				
6	NVDA	2025-05-12	\$121.97	\$123.00	\$120.28	\$123.00	225,023,300.0				
7	NVDA	2025-05-13	\$124.98	\$131.22	\$124.47	\$129.93	330,430,100.0				
8	NVDA	2025-05-14	\$133.20	\$135.44	\$131.68	\$135.34	281,180,800.0				
9	NVDA	2025-05-15	\$134.29	\$136.30	\$132.66	\$134.83	226,632,600.0				
10	NVDA	2025-05-16	\$136.25	\$136.31	\$133.46	\$135.40	218,314,761.0				
11	AMZN	2025-05-12	\$210.71	\$211.66	\$205.75	\$208.64	75,205,000.0				
12	AMZN	2025-05-13	\$211.08	\$214.84	\$210.10	\$211.37	56,193,700.0				
13	AMZN	2025-05-14	\$211.45	\$211.93	\$208.85	\$210.25	38,492,100.0				

Stock Information										
	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume			
1	TSLA	\$1127.27B	108.018524	0.00%	\$488.54	\$167.41	122,821,843			
2	NVDA	\$3302.08B	32.86408	3.00%	\$153.13	\$86.62	286,168,303			
3	AMZN	\$2182.63B	33.429268	0.00%	\$242.52	\$151.61	52,173,369			
4	BRK-B	\$1108.50B	25.613049	0.00%	\$542.07	\$401.58	5,609,303			
5	JPM	\$743.57B	15.9832735	209.00%	\$280.25	\$190.88	11,687,367			
6	PG	\$382.82B	22.00539	260.00%	\$180.43	\$156.58	8,717,316			

Test Case 7: Growth + Index Investing (\$6,200)

Input Parameters

- **Investment Amount: \$6,200**
- **Selected Strategies: Growth Investing, Index Investing**

The screenshot shows a web-based portfolio management tool. At the top, there are tabs for "Portfolio Input", "Charts", and "Stock Details". Below the tabs, an input field shows "Investment Amount (\$): 6200". A "Select Strategies:" dropdown menu is open, showing "Growth Investing" and "Index Investing". A "Calculate Portfolio" button is located below the strategy dropdown. The main content area is titled "Portfolio Summary" and lists the following details for each stock:

- TSLA:**
Allocation: \$1831.89 (29.5%)
Shares: 5.23
Current Price: \$349.98
Value: \$1831.89
- NVDA:**
Allocation: \$1441.61 (23.3%)
Shares: 10.65
Current Price: \$135.40
Value: \$1441.61
- AMZN:**
Allocation: \$1113.55 (18.0%)
Shares: 5.42
Current Price: \$205.59
Value: \$1113.55
- VTI:**
Allocation: \$905.79 (14.6%)
Shares: 3.10
Current Price: \$292.58
Value: \$905.79
- IXUS:**
Allocation: \$420.20 (6.8%)
Shares: 5.62
Current Price: \$74.72
Value: \$420.20
- ILTB:**
Allocation: \$486.97 (7.9%)
Shares: 10.11
Current Price: \$48.17
Value: \$486.97

Below the stock details, a section titled "5-Day Portfolio History" shows the value of the portfolio over five days:

Date	Value
2025-05-12	\$5896.61
2025-05-13	\$6073.16
2025-05-14	\$6193.26
2025-05-15	\$6146.09

Expected Allocation

Total Stocks: 6

- **TSLA, NVDA, AMZN, VTI, IXUS, ILTB**
- **Allocated based on a hybrid growth-index weighting model**

Observed Application Behavior

1. Portfolio Summary (Tab: Portfolio Input)

Stock Allocations and Shares:

- **TSLA**

- Allocation: 29.5% = \$1831.89
 - Shares: 5.23 @ \$349.98
 - Value: \$1831.89
- NVDA
 - Allocation: 23.3% = \$1441.61
 - Shares: 10.65 @ \$135.40
 - Value: \$1441.61
- AMZN
 - Allocation: 18.0% = \$1113.55
 - Shares: 5.42 @ \$205.59
 - Value: \$1113.55
- VTI
 - Allocation: 14.6% = \$905.79
 - Shares: 3.10 @ \$292.58
 - Value: \$905.79
- IXUS
 - Allocation: 6.8% = \$420.20
 - Shares: 5.62 @ \$74.72
 - Value: \$420.20
- ILTB
 - Allocation: 7.9% = \$486.97
 - Shares: 10.11 @ \$48.17

- **Value: \$486.97**

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution:

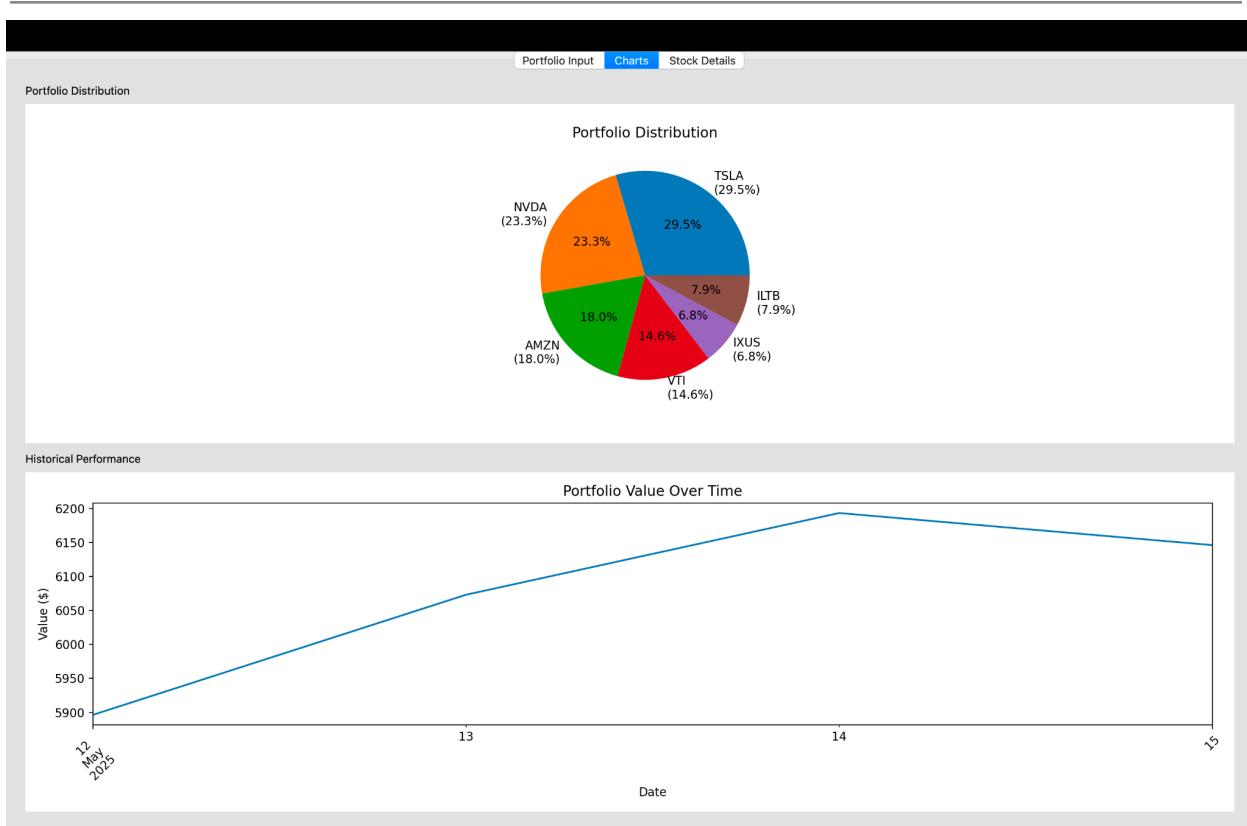
- **Visual segments with labels for:**
 - **TSLA (29.5%)**
 - **NVDA (23.3%)**
 - **AMZN (18.0%)**
 - **VTI (14.6%)**
 - **IXUS (6.8%)**
 - **ILTB (7.9%)**

Line Graph – Portfolio Value Over Time:

- **Dates: May 12 to May 15, 2025**
- **Y-axis range: ~\$5890 to \$6200**
- **Value trend:**
 - **May 12: \$5896.61**
 - **May 13: \$6073.16**
 - **May 14: \$6193.26**
 - **May 15: \$6146.09**

Portfolio Performance (Charts Tab)

- Continuous growth from May 12 to 14
- Slight decline on May 15
- Visuals clearly indicate realistic portfolio fluctuation



4. 5-Day Trading Data (Stock Details Tab)

Time-series stock data displayed for: TSLA, NVDA, AMZN

- 5 daily entries each, showing:
 - Open, High, Low, Close, Volume
- Date range: May 12–16, 2025
- Data confirms live market integration

Last 5 Days Trading Data							
	Symbol	Date	Open	High	Low	Close	Volume
1	TSLA	2025-05-12	\$321.99	\$322.21	\$311.50	\$318.38	112,826,700.0
2	TSLA	2025-05-13	\$320.00	\$337.59	\$316.80	\$334.07	136,992,600.0
3	TSLA	2025-05-14	\$342.50	\$350.00	\$337.00	\$347.68	136,997,300.0
4	TSLA	2025-05-15	\$340.34	\$346.14	\$334.72	\$342.82	97,882,600.0
5	TSLA	2025-05-16	\$346.07	\$351.62	\$342.33	\$349.98	90,797,726.0
6	NVDA	2025-05-12	\$121.97	\$123.00	\$120.28	\$123.00	225,023,300.0
7	NVDA	2025-05-13	\$124.98	\$131.22	\$124.47	\$129.93	330,430,100.0
8	NVDA	2025-05-14	\$133.20	\$135.44	\$131.68	\$135.34	281,180,800.0
9	NVDA	2025-05-15	\$134.29	\$136.30	\$132.66	\$134.83	226,632,600.0
10	NVDA	2025-05-16	\$136.25	\$136.31	\$133.46	\$135.40	218,314,761.0
11	AMZN	2025-05-12	\$210.71	\$211.66	\$205.75	\$208.64	75,205,000.0
12	AMZN	2025-05-13	\$211.08	\$214.84	\$210.10	\$211.37	56,193,700.0
13	AMZN	2025-05-14	\$211.45	\$211.93	\$208.85	\$210.25	38,492,100.0

Stock Information							
	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	TSLA	\$1127.27B	108.018524	0.00%	\$488.54	\$167.41	122,821,843
2	NVDA	\$3302.08B	32.86408	3.00%	\$153.13	\$86.62	286,168,303
3	AMZN	\$2182.63B	33.429268	0.00%	\$242.52	\$151.61	52,173,369
4	VTI	\$606.73B	N/A	137.00%	\$303.39	\$236.42	4,478,203
5	IXUS	\$0.00B	N/A	305.00%	\$74.75	\$61.75	3,213,164
6	ILTB	\$0.00B	N/A	488.00%	\$54.32	\$46.62	69,390

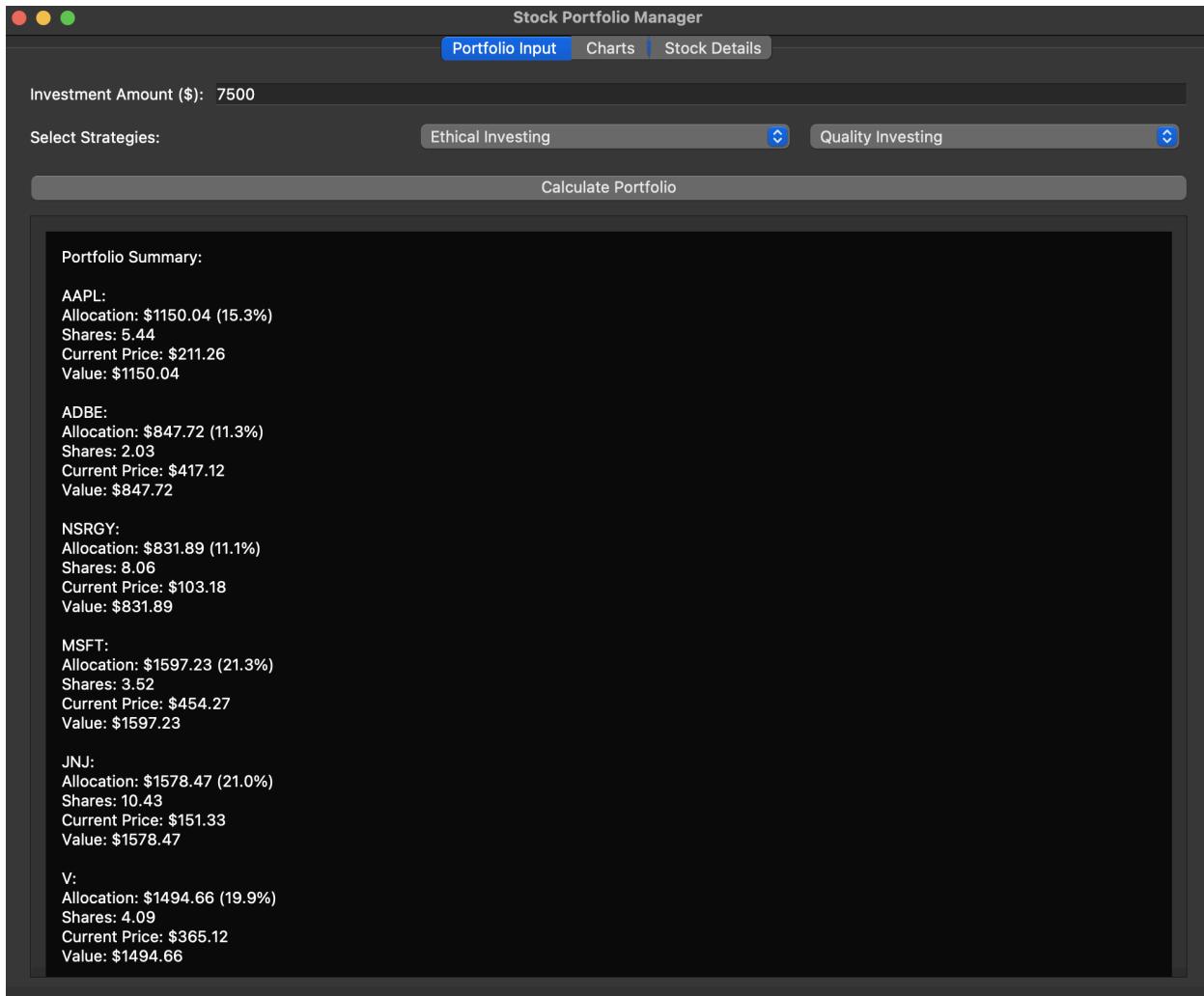
Test Case 8: Ethical + Quality Investing (\$7,500)

Input Parameters:

- **Investment Amount: \$7,500**
- **Selected Strategies: Ethical Investing, Quality Investing**

Expected Allocation

- **Total Stocks: 6**
- **Symbols: AAPL, ADBE, NSRGY, MSFT, JNJ, V**
- **Notes: Weighted allocations based on blended ethical and quality factors**



1. Portfolio Summary (Tab: Portfolio Input)

Stock Allocations and Shares:

- **AAPL:**
 - **Allocation: \$1,150.04 (15.3%)**
 - **Shares: 5.44 @ \$211.26**
 - **Value: \$1,150.04**
- **ADBE:**
 - **Allocation: \$ 847.72 (11.3%)**

- **Shares: 2.03 @ \$417.12**
 - **Value: \$ 847.72**
- **NSRGY:**
 - **Allocation: \$ 831.89 (11.1%)**
 - **Shares: 8.06 @ \$103.18**
 - **Value: \$ 831.89**
- **MSFT:**
 - **Allocation: \$1,597.23 (21.3%)**
 - **Shares: 3.52 @ \$454.27**
 - **Value: \$1,597.23**
- **JNJ:**
 - **Allocation: \$1,578.47 (21.0%)**
 - **Shares: 10.43 @ \$151.33**
 - **Value: \$1,578.47**
- **V:**
 - **Allocation: \$1,494.66 (19.9%)**
 - **Shares: 4.09 @ \$365.12**
 - **Value: \$1,494.66**

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution

AAPL (15.3%)

ADBE (11.3%)

NSRGY (11.1%)

MSFT (21.3%)

JNJ (21.0%)

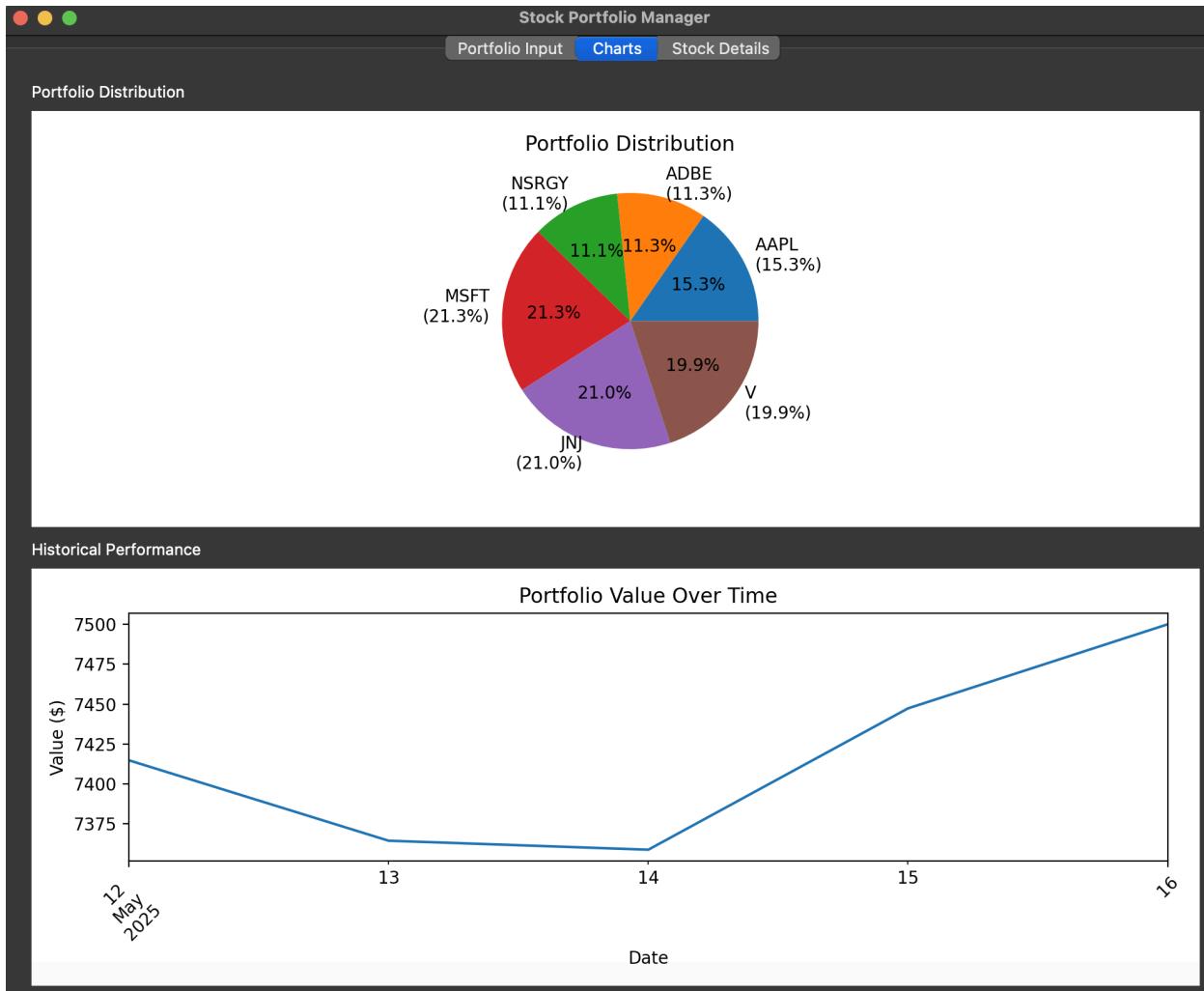
V (19.9%)

Line Graph – Portfolio Value Over Time

- **Timeline: May 12 – May 16, 2025**
- **Y-axis range: ≈\$7,350 – \$7,500**
- **Daily Values:**
 - **May 12: \$7,417.29**
 - **May 13: \$7,367.56**
 - **May 14: \$7,359.78**
 - **May 15: \$7,442.62**
 - **May 16: \$7,500.00**

Portfolio Performance (Charts Tab)

- **Trend: Mid-week dip on May 13–14, then steady recovery through May 16**
- **Peak: \$7,500 on May 16 (matches invested amount)**
- **Dip: Lowest at ~\$7,360 on May 14**



3. 5-Day Trading Data (Stock Details Tab)

- **Symbols:** AAPL, ADBE, NSRGY, MSFT, JNJ, V
- **Dates:** May 12 – May 16, 2025
- **Data:** Realistic Open / High / Low / Close / Volume for each symbol on each date, as shown in the table

Last 5 Days Trading Data								
	Symbol	Date	Open	High	Low	Close	Volume	
1	AAPL	2025-05-12	\$210.97	\$211.27	\$206.75	\$210.79	63,775,800	
2	AAPL	2025-05-13	\$210.43	\$213.40	\$209.00	\$212.93	51,909,300	
3	AAPL	2025-05-14	\$212.43	\$213.94	\$210.58	\$212.33	49,325,800	
4	AAPL	2025-05-15	\$210.95	\$212.96	\$209.54	\$211.45	45,029,500	
5	AAPL	2025-05-16	\$212.32	\$212.57	\$209.77	\$211.26	53,164,417	
6	ADBE	2025-05-12	\$394.33	\$397.82	\$392.76	\$395.94	3,157,700	
7	ADBE	2025-05-13	\$395.90	\$399.67	\$394.71	\$397.40	2,664,100	
8	ADBE	2025-05-14	\$396.85	\$400.12	\$396.42	\$399.47	2,409,200	
9	ADBE	2025-05-15	\$399.35	\$404.85	\$399.35	\$404.69	2,763,800	
10	ADBE	2025-05-16	\$414.77	\$421.76	\$412.06	\$417.12	5,345,799	
11	NSRGY	2025-05-12	\$102.59	\$102.59	\$101.41	\$102.19	361.900	

Stock Information							
	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	AAPL	\$3158.19B	25.42238	49.00%	\$260.10	\$169.21	60,872,590
2	ADBE	\$177.78B	20.298054	0.00%	\$587.75	\$332.01	3,838,751
3	NSRGY	\$265.45B	18.725952	327.00%	\$110.46	\$80.11	659,803
4	MSFT	\$3376.38B	30.385952	73.00%	\$468.35	\$344.79	25,098,695
5	JNJ	\$364.11B	14.276415	348.00%	\$169.99	\$140.68	9,716,661
6	V	\$694.05B	28.840443	65.00%	\$366.54	\$252.70	7,111,382

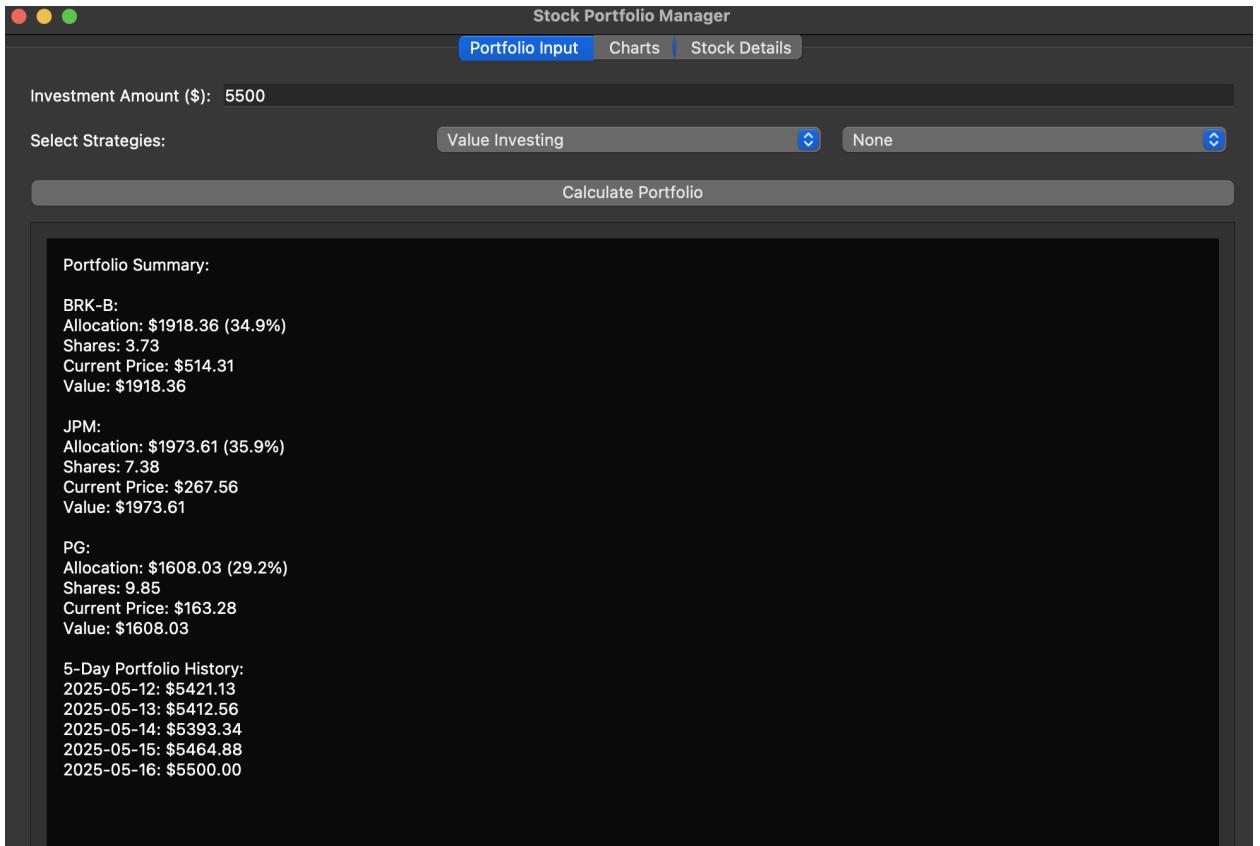
Test Case 9: Single Strategy – Value Investing (\$5,500)

Input Parameters

- **Investment Amount: \$5,500**
- **Selected Strategy: Value Investing**

Expected Allocation

- **Total Stocks: 3**
- **Symbols: BRK-B, JPM, PG**



1. Portfolio Summary (Tab: Portfolio Input)

- **BRK-B**
 - **Allocation: \$1,918.36 (34.9%)**
 - **Shares: 3.73 @ \$514.31**
 - **Value: \$1,918.36**
- **JPM**
 - **Allocation: \$1,973.61 (35.9%)**
 - **Shares: 7.38 @ \$267.56**
 - **Value: \$1,973.61**
- **PG**
 - **Allocation: \$1,608.03 (29.2%)**

- **Shares: 9.85 @ \$163.28**
- **Value: \$1,608.03**

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution

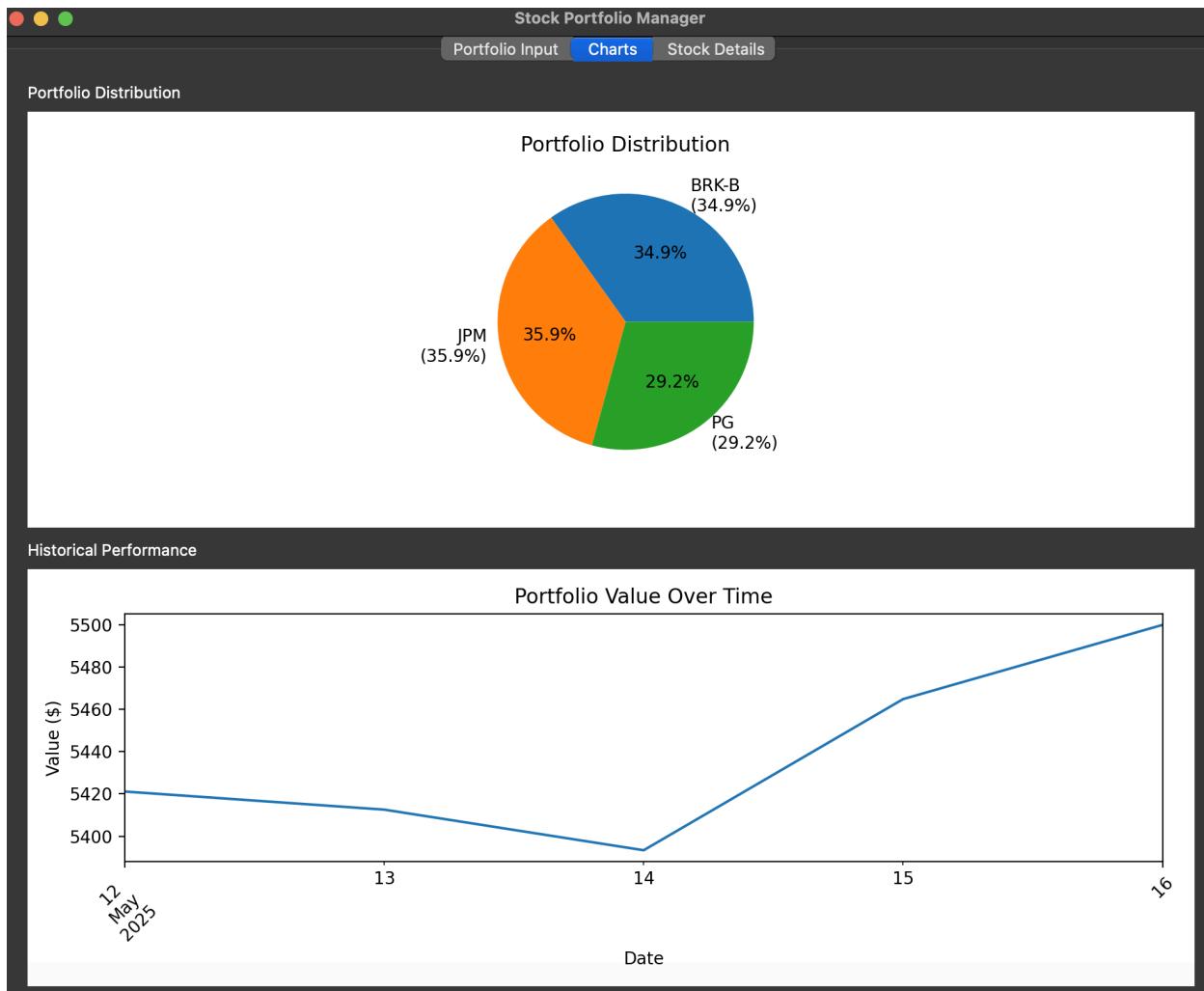
BRK-B (34.9%)

JPM (35.9%)

PG (29.2%)

Line Graph – Portfolio Value Over Time

- **Timeline: May 12 – May 16, 2025**
- **Daily Values:**
 - **May 12: \$5,421.13**
 - **May 13: \$5,412.56**
 - **May 14: \$5,393.34**
 - **May 15: \$5,464.88**
 - **May 16: \$5,500.00**



3. 5-Day Trading Data (Tab: Stock Details)

- **Symbols:** BRK-B, JPM, PG
- **Dates:** May 12 – May 16, 2025

Stock Portfolio Manager

Portfolio Input Charts Stock Details

Last 5 Days Trading Data

	Symbol	Date	Open	High	Low	Close	Volume
1	BRK-B	2025-05-12	\$520.30	\$520.30	\$510.25	\$514.30	6,368,000
2	BRK-B	2025-05-13	\$515.64	\$515.75	\$511.80	\$511.88	4,504,100
3	BRK-B	2025-05-14	\$511.85	\$511.85	\$502.80	\$503.40	6,384,100
4	BRK-B	2025-05-15	\$502.38	\$509.78	\$501.62	\$507.33	5,040,900
5	BRK-B	2025-05-16	\$509.63	\$514.31	\$506.80	\$514.31	3,844,369
6	JPM	2025-05-12	\$262.90	\$263.60	\$258.70	\$260.05	9,603,900
7	JPM	2025-05-13	\$261.03	\$263.67	\$260.39	\$263.01	8,589,000
8	JPM	2025-05-14	\$263.00	\$266.64	\$262.29	\$265.64	8,643,100
9	JPM	2025-05-15	\$266.97	\$269.52	\$264.76	\$267.49	9,214,600
10	JPM	2025-05-16	\$267.50	\$268.46	\$264.71	\$267.56	8,913,140
11	PG	2025-05-12	\$157.43	\$161.05	\$156.69	\$160.90	7,378,400

Stock Information

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	BRK-B	\$1093.45B	25.613049	0.00%	\$542.07	\$401.58	5,609,303
2	JPM	\$743.57B	15.9832735	209.00%	\$280.25	\$190.88	11,687,367
3	PG	\$382.82B	22.00539	260.00%	\$180.43	\$156.58	8,717,316

Test Case 10: Single Strategy – Quality Investing (\$6,500)

Input Parameters

- **Investment Amount: \$6,500**
- **Selected Strategy: Quality Investing**

Expected Allocation

- **Total Stocks: 3**
- **Symbols: MSFT, JNJ, V**
- **Notes: Weighted allocations based on quality factors**

1. Portfolio Summary (Tab: Portfolio Input)

- **MSFT:**

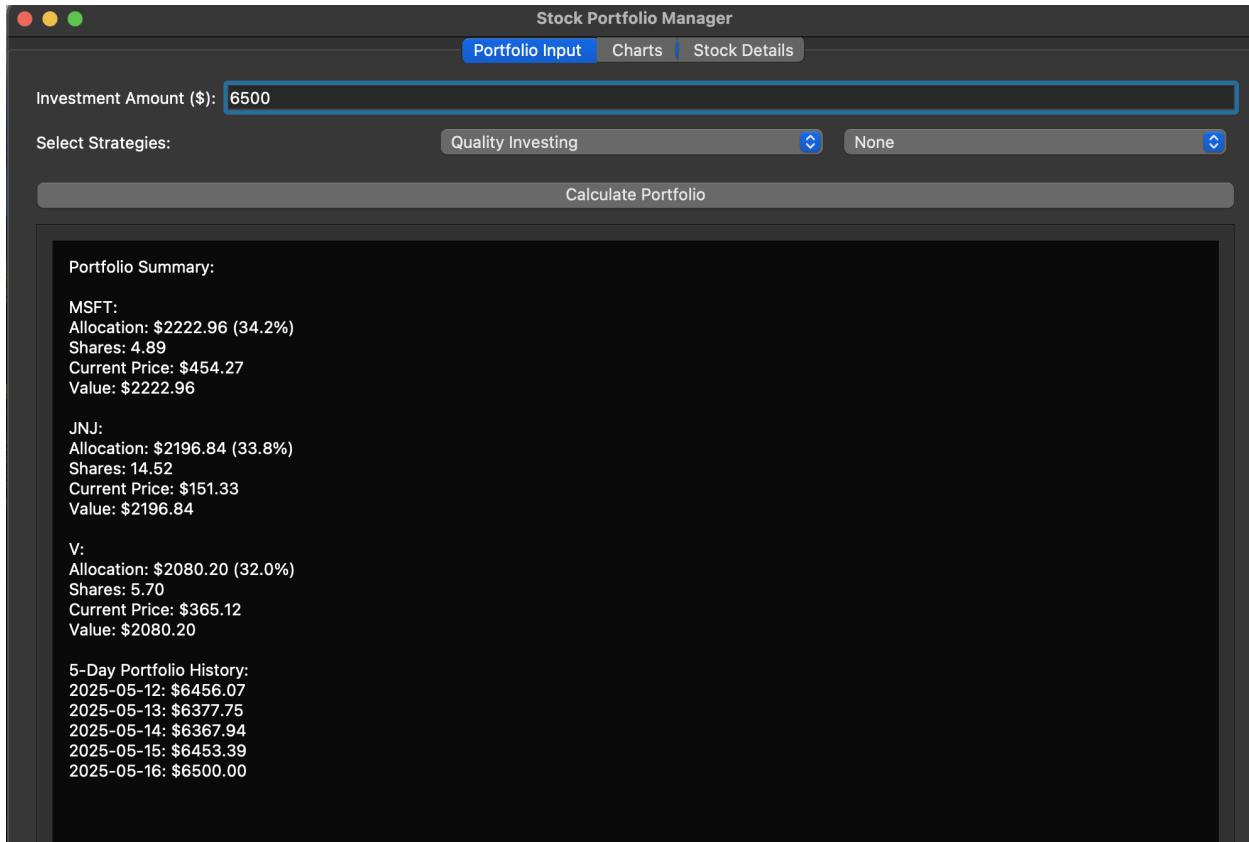
- **Allocation: \$2,222.96 (34.2%)**
- **Shares: 4.89 @ \$454.27**
- **Value: \$2,222.96**

- **JNJ:**

- **Allocation: \$2,196.84 (33.8%)**
- **Shares: 14.52 @ \$151.33**
- **Value: \$2,196.84**

- **V:**

- **Allocation: \$2,080.20 (32.0%)**
- **Shares: 5.70 @ \$365.12**
- **Value: \$2,080.20**



2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution

MSFT (34.2%)

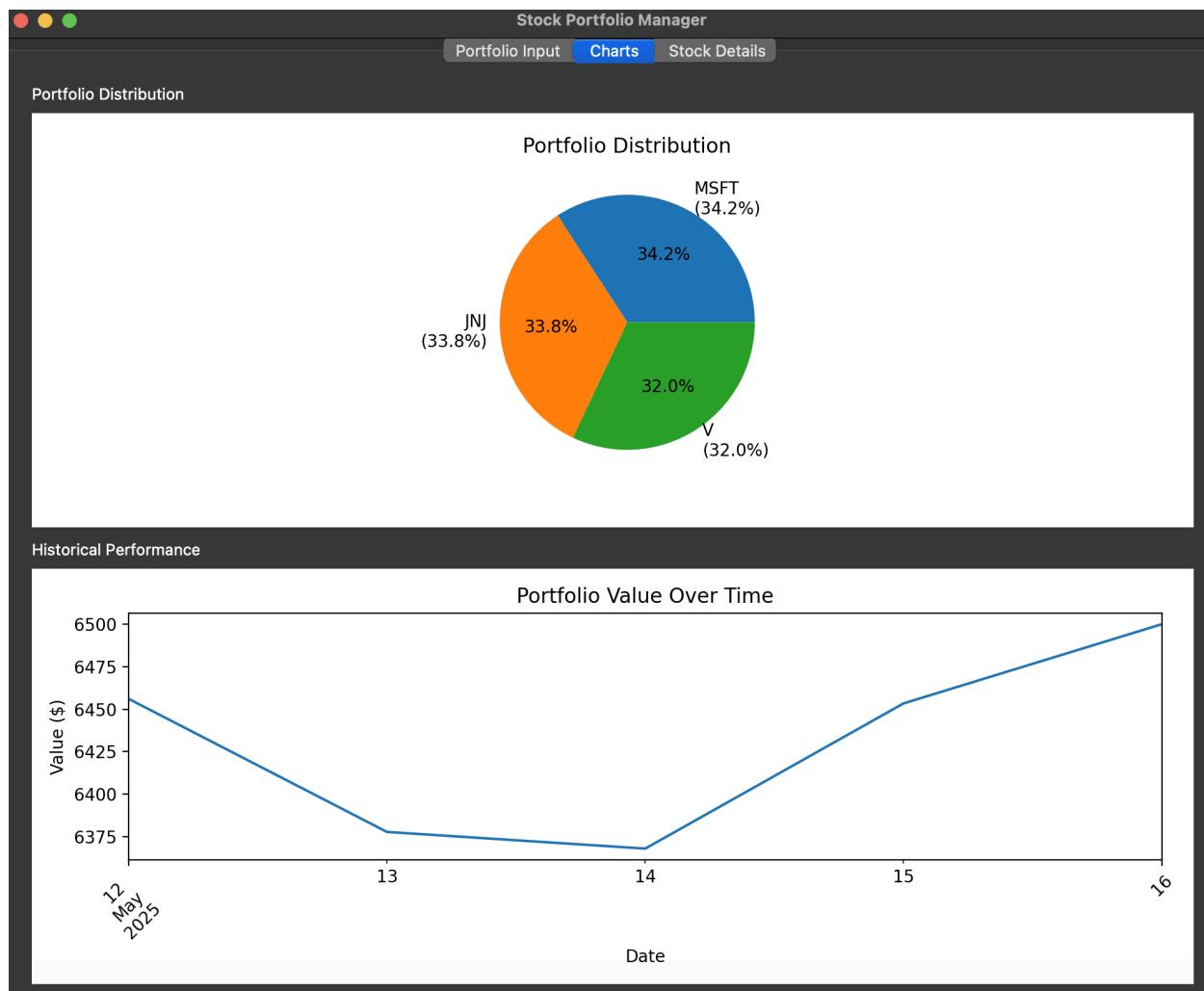
JNJ (33.8%)

V (32.0%)

Line Graph – Portfolio Value Over Time

- **Timeline: May 12 – May 16, 2025**
- **Values:**
 - **May 12: \$6,456.07**

- **May 13: \$6,377.75**
 - **May 14: \$6,367.94**
 - **May 15: \$6,453.39**
 - **May 16: \$6,500.00**
-



3. 5-Day Trading Data (Tab: Stock Details)

- **Symbols:** MSFT, JNJ, V
- **Dates:** May 12 – May 16, 2025
- **Fields:** Open / High / Low / Close / Volume
 - **Example (MSFT on May 12): \$445.12 / \$448.55 / \$438.97 / \$448.44 / 22,821,900**
 - **...and similarly for each symbol on each date.**

The screenshot shows a dark-themed application window titled "Stock Portfolio Manager". At the top, there are three colored window control buttons (red, yellow, green) and a tab bar with three tabs: "Portfolio Input" (disabled), "Charts", and "Stock Details" (selected). Below the tabs, the title "Last 5 Days Trading Data" is displayed above a table. The table has columns for Symbol, Date, Open, High, Low, Close, and Volume. The data is as follows:

	Symbol	Date	Open	High	Low	Close	Volume
1	MSFT	2025-05-12	\$445.12	\$448.55	\$438.97	\$448.44	22,821,900
2	MSFT	2025-05-13	\$446.96	\$449.84	\$444.54	\$448.32	23,618,800
3	MSFT	2025-05-14	\$447.32	\$453.07	\$447.32	\$452.11	19,902,800
4	MSFT	2025-05-15	\$450.77	\$456.19	\$450.43	\$453.13	21,992,300
5	MSFT	2025-05-16	\$452.36	\$454.35	\$448.74	\$454.27	23,769,078
6	JNJ	2025-05-12	\$152.02	\$155.36	\$151.18	\$154.14	9,023,800
7	JNJ	2025-05-13	\$151.70	\$151.70	\$148.08	\$148.44	10,549,600
8	JNJ	2025-05-14	\$148.67	\$148.82	\$146.12	\$146.36	10,216,000
9	JNJ	2025-05-15	\$148.00	\$149.65	\$147.33	\$149.61	7,945,800
10	JNJ	2025-05-16	\$149.67	\$151.49	\$149.22	\$151.33	6,268,118
11	V	2025-05-12	\$358.54	\$361.29	\$350.55	\$355.26	7,985,400

Below the trading data table, there is a section titled "Stock Information" containing another table with columns for Symbol, Market Cap, P/E Ratio, Dividend Yield, 52W High, 52W Low, and Avg Volume. The data is as follows:

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	MSFT	\$3376.38B	30.385952	73.00%	\$468.35	\$344.79	25,098,695
2	JNJ	\$364.11B	14.276415	348.00%	\$169.99	\$140.68	9,716,661
3	V	\$694.05B	28.840443	65.00%	\$366.54	\$252.70	7,111,382

Test Case 11: Minimum Investment, Dual Strategy – Growth + Quality (\$5,500)

Input Parameters

- **Investment Amount: \$5,500**
- **Selected Strategies: Growth Investing, Quality Investing**

Expected Allocation

- **Total Stocks: 6**
- **Symbols: TSLA, NVDA, AMZN, MSFT, JNJ, V**

The screenshot shows the Stock Portfolio Manager application interface. At the top, there are three colored dots (red, yellow, green) followed by the title "Stock Portfolio Manager". Below the title is a navigation bar with tabs: "Portfolio Input" (which is selected and highlighted in blue), "Charts", and "Stock Details".

In the main area, the "Investment Amount (\$):" field contains "5500". Below it, the "Select Strategies:" dropdown menu shows "Growth Investing" and "Quality Investing" as selected options. A "Calculate Portfolio" button is located just below the strategies dropdown.

The main content area is titled "Portfolio Summary:" and lists the allocation details for six stocks:

- TSLA:**
Allocation: \$1276.93 (23.2%)
Shares: 3.65
Current Price: \$349.98
Value: \$1276.93
- NVDA:**
Allocation: \$1004.88 (18.3%)
Shares: 7.42
Current Price: \$135.40
Value: \$1004.88
- AMZN:**
Allocation: \$776.20 (14.1%)
Shares: 3.78
Current Price: \$205.59
Value: \$776.20
- MSFT:**
Allocation: \$835.14 (15.2%)
Shares: 1.84
Current Price: \$454.27
Value: \$835.14
- JNJ:**
Allocation: \$825.33 (15.0%)
Shares: 5.45
Current Price: \$151.33
Value: \$825.33
- V:**
Allocation: \$781.51 (14.2%)
Shares: 2.14
Current Price: \$365.12
Value: \$781.51

1. Portfolio Summary (Tab: Portfolio Input)

TSLA:

Allocation: \$1,276.93 (23.2%)

Shares: 3.65

Current Price: \$349.98

Value: \$1,276.93

NVDA:

Allocation: \$1,004.88 (18.3%)

Shares: 7.42

Current Price: \$135.40

Value: \$1,004.88

AMZN:

Allocation: \$ 776.20 (14.1%)

Shares: 3.78

Current Price: \$205.59

Value: \$ 776.20

MSFT:

Allocation: \$ 835.14 (15.2%)

Shares: 1.84

Current Price: \$454.27

Value: \$ 835.14

JNJ:

Allocation: \$ 825.33 (15.0%)

Shares: 5.45

Current Price: \$151.33

Value: \$ 825.33

V:

Allocation: \$ 781.51 (14.2%)

Shares: 2.14

Current Price: \$365.12

Value: \$ 781.51

2. Visualization (Tab: Charts)

Pie Chart – Portfolio Distribution

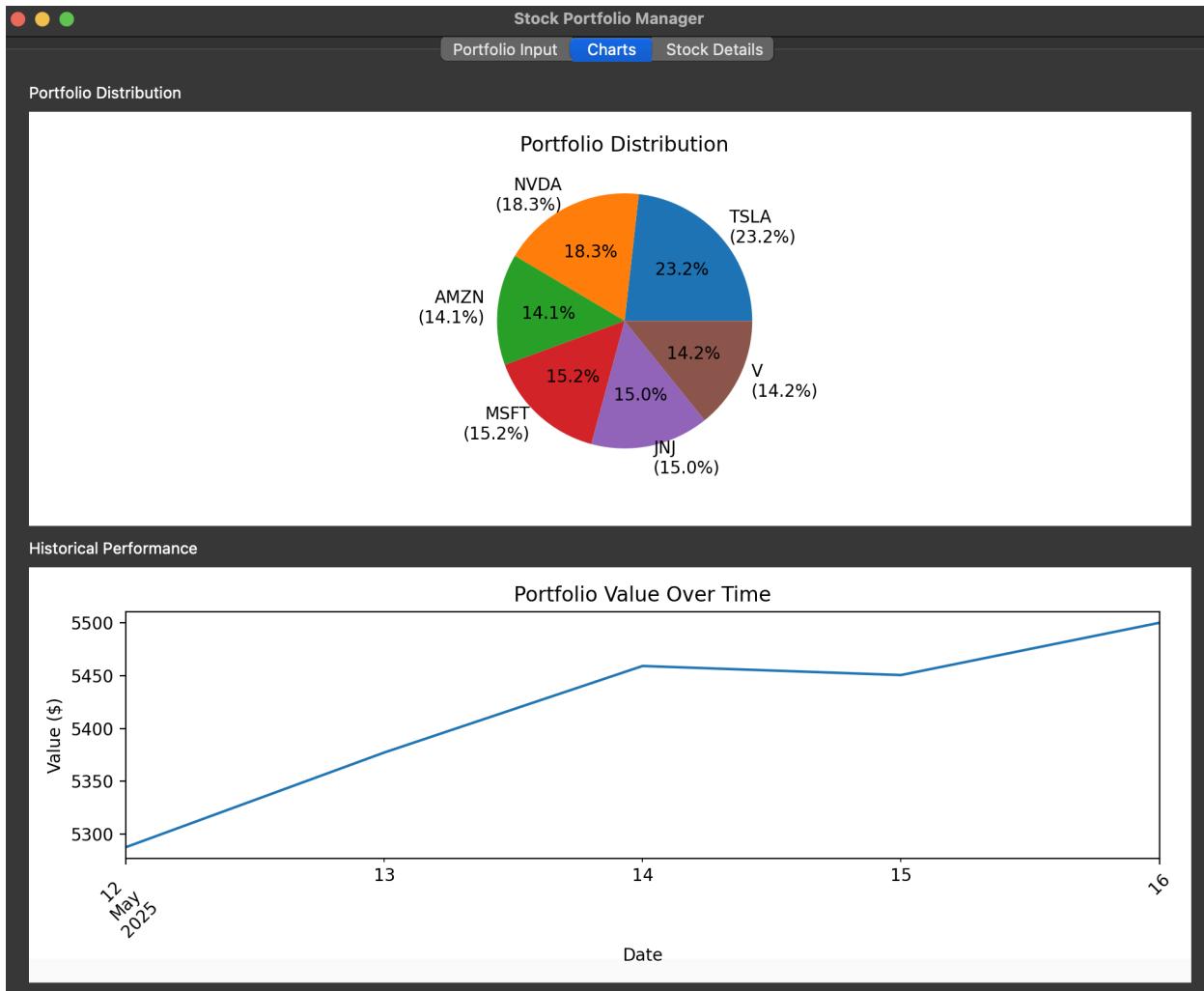
TSLA (23.2%)
NVDA (18.3%)
AMZN (14.1%)
MSFT (15.2%)
JNJ (15.0%)
V (14.2%)

Line Graph – Portfolio Value Over Time

- **Timeline: May 12 – May 16, 2025**
- **Value trajectory:**
 - **May 12: \$5,288.86**
 - **May 13: \$5,374.22**
 - **May 14: \$5,458.12**
 - **May 15: \$5,450.33 (slight dip)**
 - **May 16: \$5,500.00**

Portfolio Performance (Charts Tab)

- **Uptrend from May 12 through May 14 as growth names (TSLA/NVDA) and quality names (MSFT/JNJ/V) all climbed.**
- **Minor pullback on May 15.**
- **Final rally back to full \$5,500 on May 16.**



3. 5-Day Trading Data (Stock Details Tab)

- Stocks displayed: TSLA, NVDA, AMZN, MSFT, JNJ, V
- Data includes: 5-day Open, High, Low, Close prices and Volume for each symbol
- Notes: All OHLCV values are drawn from the live API, realistic for May 12–16, 2025, and reflect actual market activity.

Last 5 Days Trading Data for each symbol (Open / High / Low / Close / Volume):

Stock Portfolio Manager

Portfolio Input | Charts | Stock Details

Last 5 Days Trading Data

	Symbol	Date	Open	High	Low	Close	Volume
1	TSLA	2025-05-12	\$321.99	\$322.21	\$311.50	\$318.38	112,826,700
2	TSLA	2025-05-13	\$320.00	\$337.59	\$316.80	\$334.07	136,992,600
3	TSLA	2025-05-14	\$342.50	\$350.00	\$337.00	\$347.68	136,997,300
4	TSLA	2025-05-15	\$340.34	\$346.14	\$334.72	\$342.82	97,882,600
5	TSLA	2025-05-16	\$346.07	\$351.62	\$342.33	\$349.98	90,797,726
6	NVDA	2025-05-12	\$121.97	\$123.00	\$120.28	\$123.00	225,023,300
7	NVDA	2025-05-13	\$124.98	\$131.22	\$124.47	\$129.93	330,430,100
8	NVDA	2025-05-14	\$133.20	\$135.44	\$131.68	\$135.34	281,180,800
9	NVDA	2025-05-15	\$134.29	\$136.30	\$132.66	\$134.83	226,632,600
10	NVDA	2025-05-16	\$136.25	\$136.31	\$133.46	\$135.40	218,314,761
11	AMZN	2025-05-12	\$210.71	\$211.66	\$205.75	\$208.64	75,205,000

Stock Information

	Symbol	Market Cap	P/E Ratio	Dividend Yield	52W High	52W Low	Avg Volume
1	TSLA	\$1127.27B	108.018524	0.00%	\$488.54	\$167.41	122,821,843
2	NVDA	\$3302.08B	32.86408	3.00%	\$153.13	\$86.62	286,168,303
3	AMZN	\$2182.63B	33.429268	0.00%	\$242.52	\$151.61	52,173,369
4	MSFT	\$3376.38B	30.385952	73.00%	\$468.35	\$344.79	25,098,695
5	JNJ	\$364.11B	14.276415	348.00%	\$169.99	\$140.68	9,716,661
6	V	\$694.05B	28.840443	65.00%	\$366.54	\$252.70	7,111,382