Example Run

I cannot include the actual code in the repository as the IP is owned by Vianai Systems, but I am allowed to show an example run with inputs and outputs. I have chosen Monster Energy (MNST) although the code will work for any S&P 500 company. The entire Excel Sheet generation takes approximately 30 seconds.

Input:

```
[25] 1 def get_years():
2    num_years = input("Select how many years you would like to project")
3    return num_years

[26] 1 def get_company():
2    company = input("Select a company ticker")
3    return company
```

In our case, we have chosen company=MNST and num years=4

Output:

Income Statement:

5s D	0	Revenue	4598638000	5,541,352,000.00	6,311,050,000.00	7,187,659,636.58	8,186,031,017.24	9,323,076,940.68	10,618,059,406.16
		Revenue Growth Percentage	N/A	0.20	0.14	0.14	0.14	0.14	0.14
	2	Cost of Goods Sold	1874758000	2,432,839,000.00	3,136,483,000.00	3,428,389,677.30	3,740,874,986.10	4,074,023,823.06	4,427,547,637.11
	3	COGS as a % of Revenue	0.41	0.44	0.50	0.48	0.46	0.44	0.42
	4	Gross Profit	2723880000	3,108,513,000.00	3,174,567,000.00	3,759,269,959.28	4,445,156,031.15	5,249,053,117.61	6,190,511,769.05
	5	Gross Profit Margin	0.59	0.56	0.50	0.52	0.54	0.56	0.58
	6	SG&A Expenses		0.00	709,900,000.00	789,753,274.81	878,588,864.74	977,417,147.68	1,087,362,154.16
	7	SGA as a % of Revenue	0.00	0.00	0.11	0.11	0.11	0.11	0.11
	8	R&D Expenses		0.00	0.00	0.00	0.00	0.00	0.00
	9	R&D as a % of Revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	10	Other Expenses	1090727000	1,311,046,000.00	879,946,000.00	1,002,636,354.68	1,142,433,353.56	1,301,722,166.00	1,483,220,524.13
	11	Other Expenses as a % of Revenue	0.24	0.24	0.14	0.14	0.14	0.14	0.14
	12	EBITDA	1694126000	1,847,622,000.00	1,645,962,000.00	2,031,268,681.70	2,491,831,268.20	3,041,090,427.09	3,694,763,686.21
	13	EBITDA Margin	0.37	0.33	0.26	0.28	0.30	0.33	0.35
	14	D&A	60973000	50,155,000.00	61,241,000.00	76,845,580.13	94,527,911.41	115,363,711.06	139,825,213.40
	15	ЕВІТ	1633153000	1,797,467,000.00	1,584,721,000.00	1,966,880,329.79	2,424,133,812.85	2,969,913,803.94	3,619,929,090.77
	16	EBIT Margin	0.36	0.32	0.25	0.28	0.30	0.33	0.35
	17	Interest Income		0.00	0.00	N/A	N/A	N/A	N/A
	18	Interest Expenses		0.00	12,757,000.00	N/A	N/A	N/A	N/A
	19	Other Interest Expenses	6,996,000.36	-3,951,999.68	12,757,000.25	N/A	N/A	N/A	N/A
	20	Net Interest Expenses	-6996000	3,952,000.00	-12,757,000.00				0
	21	EBT	1626157000	1,801,419,000.00	1,571,964,000.00	1,966,880,329.79	2,424,133,812.85	2,969,913,803.94	3,619,929,090.77
	22	EBT Margin	0.35	0.33	0.25	0.28	0.30	0.33	0.35
	23	Income Tax Expenses	216563000	423.944.000.00	380.340.000.00	471.623.270.43	584.814.926.68	725.173.077.55	899.217.801.08

21	EBT	1626157000	1,801,419,000.00	1,571,964,000.00	1,966,880,329.79	2,424,133,812.85	2,969,913,803.94	3,619,929,090.77
22	EBT Margin	0.35	0.33	0.25	0.28	0.30	0.33	0.35
23	Income Tax Expenses	216563000	423,944,000.00	380,340,000.00	471,623,270.43	584,814,926.68	725,173,077.55	899,217,801.08
24	Tax Rate %	0.13	0.24	0.24	0.24	0.24	0.24	0.24
25	Net Income	1409594000	1,377,475,000.00	1,191,624,000.00	1,495,257,059.36	1,839,318,886.18	2,244,740,726.39	2,720,711,289.69
26	D&A as a % of NI	0.04	0.04	0.05	0.05	0.05	0.05	0.05
27	Earnings Per Share (Basic)	1.33	1.31	1.13	1.43	1.76	2.14	2.60
28	Earnings Per Share (Diluted)	1.32	1.29	1.12	1.42	1.75	2.14	2.59
29	Average Common Shares Outstanding (Basic)	1059278000	1,057,526,000.00	1,053,558,000.00	1,047,722,029.70	1,047,722,029.70	1,047,722,029.70	1,047,722,029.70
30	Average Common Shares Outstanding (Diluted)	1069614000	1,071,278,000.00	1,066,442,000.00	1,049,812,873.91	1,049,812,873.91	1,049,812,873.91	1,049,812,873.91
31	Common Shares Repurchased	N/A	1,752,000.00	3,968,000.00	5,835,970.30	5,835,970.30	5,835,970.30	5,835,970.30

Cash Flow Statement:

	Item	2020	2021	2022	2023(E)	2024(E)	2025(E)	2026(E)
0	Net Income	1,409,594,000.00	1,377,475,000.00	1,191,624,000.00	1,495,257,059.36	1,839,318,886.18	2,244,740,726.39	2,720,711,289.69
1	Depreciation and Amortization	60,973,000.00	50,155,000.00	61,241,000.00	76,845,580.13	94,527,911.41	115,363,711.06	139,825,213.40
2	Deferred Income Taxes	-156,873,000.00	16,429,000.00	48,182,000.00	N/A	N/A	N/A	N/A
3	Stock-Based Compensation	70,289,000.00	70,483,000.00	64,109,000.00	N/A	N/A	N/A	N/A
4	Changes in Accounts Receivables	-119,672,000.00	-254,228,000.00	-128,981,000.00	-146,896,558.83	-167,300,602.38	-190,538,783.07	-217,004,764.70
5	Changes in Inventory	30,304,000.00	-277,793,000.00	-347,712,000.00	-380,072,913.35	-414,715,183.59	-451,648,222.41	-490,840,040.90
6	Changes in Accounts Payable	18,696,000.00	114,297,000.00	49,765,000.00	54,396,536.60	59,354,584.00	64,640,489.22	70,249,673.97
7	Changes in Other Working Capital	42,502,000.00	55,829,000.00	-59,881,000.00	N/A	N/A	N/A	N/A
8	Changes in Other Non-Cash Items	8,350,000.00	3,094,000.00	9,352,000.00	N/A	N/A	N/A	N/A
9	Net Changes From Operating Working Capital	-28,170,000.00	-361,895,000.00	-486,809,000.00	-472,572,935.58	-522,661,201.97	-577,546,516.26	-637,595,131.63
10	Total Cash Flows From Operating Activities	1,364,163,000.00	1,155,741,000.00	887,699,000.00	1,099,529,703.90	1,411,185,595.62	1,782,557,921.19	2,222,941,371.46
11	Payments for Property and Equipment (CAPEX)	-67,272,000.00	-57,453,000.00	-212,153,000.00	-219,284,760.23	-226,656,262.55	-234,275,566.17	-242,151,001.19
12	CAPEX as a % of revenue	0.01	0.01	0.03	0.03	0.03	0.03	0.03
13	Purchases of Investments	-1,299,981,000.00	-2,413,143,000.00	-1,847,067,000.00	N/A	N/A	N/A	N/A
14	Net Cash from Acquisitions	-17,557,000.00	-12,257,000.00	-329,472,000.00	N/A	N/A	N/A	N/A
15	Sales Maturities of Investments	920,196,000.00	1,488,599,000.00	2,252,355,000.00	N/A	N/A	N/A	N/A
16	Other Investing Activities	-7,873,000.00	2,232,000.00	-25,030,000.00	N/A	N/A	N/A	N/A
17	Total Cash From Investing Activities	-472,487,000.00	-992,022,000.00	-161,367,000.00	-219,284,760.23	-226,656,262.55	-234,275,566.17	-242,151,001.19
18	Debt Repayments	-3,086,000.00	0.00	0.00	N/A	N/A	N/A	N/A
19	Dividends Paid	0.00	0.00	0.00	N/A	N/A	N/A	N/A
20	Purchase of Common Stock	-595,918,000.00	-13,830,000.00	-771,028,000.00	-292,440,471.58	-292,440,471.58	-292,440,471.58	-292,440,471.58
16	Other Investing Astinities	7 872 000 00	2 222 202 20	0F 020 000 00	N/A	N/A	N/A	N/A
17	Other Investing Activities	-7,873,000.00	2,232,000.00	-25,030,000.00				
	Total Cash From Investing Activities	-472,487,000.00	-992,022,000.00	-161,367,000.00	-219,284,760.23	-226,656,262.55	-234,275,566.17 N/A	-242,151,001.19 N/A
18	Debt Repayments	-3,086,000.00	0.00	0.00	N/A	N/A		
19	Dividends Paid	0.00	0.00	0.00	N/A	N/A	N/A	N/A
20	Purchase of Common Stock	-595,918,000.00 72.936.000.00	-13,830,000.00	-771,028,000.00	-292,440,471.58 N/A	-292,440,471.58 N/A	-292,440,471.58 N/A	-292,440,471.58 N/A
21	Common Stock Issued	72,936,000.00	45,723,000.00 2.928.000.00	64,015,000.00 75.000.00	N/A N/A	N/A N/A	N/A N/A	N/A N/A
	Other Financing Activities							
23	Total Cash From Financing Activities	-526,068,000.00	34,821,000.00	-706,938,000.00	-292,440,471.58	-292,440,471.58	-292,440,471.58	-292,440,471.58
24	Effect of Exchange Rate on Cash	16,848,000.00	-52,491,000.00	-38,715,000.00	-38715000	-52491000	16848000	-38715000
25	Total Change in Cash and Cash Equivalents	382,456,000.00	146,049,000.00	-19,321,000.00	549,089,472.09	839,597,861.48	1,272,689,883.44	1,649,634,898.68

Balance Sheet Statement:

	Item	2020	2021	2022	2023(E)	2024(E)	2025(E)	2026(E)
0	cashAndCashEquivalents	1180413000	1326462000	1307141000	1,856,230,472.09	2,695,828,333.57	3,968,518,217.01	5,618,153,115.70
1	Net Receivables	666012000	896658000	1016203000	1,163,099,558.83	1,330,400,161.20	1,520,938,944.27	1,737,943,708.97
2	Inventory	333085000	593357000	935631000	1,315,703,913.35	1,730,419,096.94	2,182,067,319.34	2,672,907,360.24
3	Short Term Investments	881354000	1749727000	1362314000	1,362,314,000.00	1,362,314,000.00	1,362,314,000.00	1,362,314,000.00
4	Other Current Assets	80091000	115906000	143608000	143,608,000.00	143,608,000.00	143,608,000.00	143,608,000.00
5	Total Current Assets	3140955000	4682110000	4764897000	5,840,955,944.26	7,262,569,591.71	9,177,446,480.63	11,534,926,184.91
6	Property, Plant, and Equipment	314656000	313753000	516897000	659,336,180.11	791,464,531.25	910,376,386.36	1,012,702,174.15
7	Long Term Investments	44291000	99419000	61443000	61,443,000.00	61,443,000.00	61,443,000.00	61,443,000.00
8	Goodwill	1331643000	1331643000	1417941000	1,417,941,000.00	1,417,941,000.00	1,417,941,000.00	1,417,941,000.00
9	Intangible Assets	1059046000	1072386000	1220410000	1,220,410,000.00	1,220,410,000.00	1,220,410,000.00	1,220,410,000.00
10	Tax Assets	241650000	225221000	177039000	177,039,000.00	177,039,000.00	177,039,000.00	177,039,000.00
11	Other Non Current Assets	70475000	80252000	134478000	134,478,000.00	134,478,000.00	134,478,000.00	134,478,000.00
12	Other Assets				0.00	0.00	0.00	0.00
13	Total Assets	6202716000	7804784000	8293105000	9,511,603,124.37	11,065,345,122.96	13,099,133,866.99	15,558,939,359.06
14	Short Term Debt				0.00	0.00	0.00	0.00
15	Accounts Payable	296800000	404263000	444265000	498,661,536.60	558,016,120.59	622,656,609.82	692,906,283.78
16	Deferred Revenue	45429000	42530000	43311000	43,311,000.00	43,311,000.00	43,311,000.00	43,311,000.00
17	Tax Payables	23433000	30399000	13317000	13,317,000.00	13,317,000.00	13,317,000.00	13,317,000.00
18	Other Current Liabilities	407759000	518283000	514402000	514,402,000.00	514,402,000.00	514,402,000.00	514,402,000.00
								· · · · · · · · · · · · · · · · · · ·
18	Other Current Liabilities	407759000	518283000	514402000	514,402,000.00	514,402,000.00	514,402,000.00	514,402,000.00
19	Total Current Liabilities	749988000	965076000	1001978000	1,056,374,536.60	1,115,729,120.59	1,180,369,609.82	1,250,619,283.78
20	Long Term Debt				0.00	0.00	0.00	0.00
21	Deferred Revenue (Non Current)	264436000	243249000	223800000	223,800,000.00	223,800,000.00	223,800,000.00	223,800,000.00
22	Capital Lease Obligations				0.00	0.00	0.00	0.00
23	Deferred Tax Liabilities (Non Current)				0.00	0.00	0.00	0.00
24	Other Non Current Liabilities	27432000	29508000	42286000	42,286,000.00	42,286,000.00	42,286,000.00	42,286,000.00
25	Other Liabilities				0.00	0.00	0.00	0.00
26	Total Liabilities	1041856000	1237833000	1268064000	1,322,460,536.60	1,381,815,120.59	1,446,455,609.82	1,516,705,283.78
27	Preferred Stock				0.00	0.00	0.00	0.00
28	Common Stock Par Value + Additional Paid-In-Ca	3193000	3200000	3209000	3,209,000.00	3,209,000.00	3,209,000.00	3,209,000.00
29	Retained Earnings	6432074000	7809549000	9001173000	10,203,989,587.77	11,750,868,002.37	13,703,168,257.17	16,131,439,075.28
30	Accumulated Other Comprehensive Income (Loss)	3034000	-69165000	-159073000	-197,788,000.00	-250,279,000.00	-233,431,000.00	-272,146,000.00
31	Other Stockholders Equity	-1277441000	-1176633000	-1820268000	-1,820,268,000.00	-1,820,268,000.00	-1,820,268,000.00	-1,820,268,000.00
32	Minority Interest				0.00	0.00	0.00	0.00
33	Total Shareholders Equity	5160860000	6566951000	7025041000	8,189,142,587.77	9,683,530,002.37	11,652,678,257.17	14,042,234,075.28
34	Total Liabilities and Equity	6202716000	7804784000	8293105000	9,511,603,124.37	11,065,345,122.96	13,099,133,866.99	15,558,939,359.06
35	Balanced?	True	True	True	True	True	True	True

Valuation Table:

	Item	Value
0	Beta	0.83
1	Enterprise Value	49,400,000,000.00
2	Risk Free Rate	0.04
3	Market Risk Premium	0.05
4	Cost of Equity	0.08
5	Cost Of Debt	0.00
6	Weighted Average Cost of Capital(WACC)	0.08
7	Total Net Present Value	0.00
8	Valuation	48.40
9	Growth Rate	-0.03

Excel Sheet:

- This has been included in the files of this repository under MNST DCF to make more visible

Conclusion:

- With two simple parameters, this program can generate all of the necessary information for a baseline DCF in under 30 seconds, utilizing information from a variety of online sources. It takes into account the current value of the stock when deciding valuation and will update all numbers on every run. Although the tool is not meant to make direct investments from, it can help save time, energy, and money for investment firms who are wasting precious resources on data gathering.