PS C:\Users\Chris Longo\iot\lesson3> pip install jdcal

Collecting jdcal

  Obtaining dependency information for jdcal from
https://files.pythonhosted.org/packages/f0/da/572cbc0bc582390480bbd7c4e93d14dc46079778e
d915b505dc494b37c57/jdcal-1.4.1-py2.py3-none-any.whl.metadata

  Downloading jdcal-1.4.1-py2.py3-none-any.whl.metadata (5.0 kB)

Downloading jdcal-1.4.1-py2.py3-none-any.whl (9.5 kB)

Installing collected packages: jdcal

Successfully installed jdcal-1.4.1

[notice] A new release of pip is available: 23.2.1 -> 25.0.1

[notice] To update, run: C:\Users\Chris
Longo\AppData\Local\Programs\Python\Python312\python.exe -m pip install --upgrade pip

PS C:\Users\Chris Longo\iot\lesson3> pip install astral

Collecting astral

  Obtaining dependency information for astral from
https://files.pythonhosted.org/packages/2d/80/d6edd9c3259913cfe39aff2bea4da65de5ad0235a5
78405e37aabace5f2c/astral-3.2-py3-none-any.whl.metadata

  Downloading astral-3.2-py3-none-any.whl.metadata (1.7 kB)

Collecting tzdata (from astral)

  Obtaining dependency information for tzdata from
https://files.pythonhosted.org/packages/0f/dd/84f10e23edd882c6f968c21c2434fe67bd4a5289670
67515feca9e611e5e/tzdata-2025.1-py2.py3-none-any.whl.metadata

  Downloading tzdata-2025.1-py2.py3-none-any.whl.metadata (1.4 kB)

Downloading astral-3.2-py3-none-any.whl (38 kB)

Downloading tzdata-2025.1-py2.py3-none-any.whl (346 kB)

━━━

346.8/346.8 kB 10.9 MB/s eta 0:00:00

Installing collected packages: tzdata, astral

Successfully installed astral-3.2 tzdata-2025.1

PS C:\Users\Chris Longo\iot\lesson3> pip install geopy

Collecting geopy

 Obtaining dependency information for geopy from https://files.pythonhosted.org/packages/e5/15/cf2a69ade4b194aa524ac75112d5caac37414b20a3a03e6865dfe0bd1539/geopy-2.4.1-py3-none-any.whl.metadata

 Downloading geopy-2.4.1-py3-none-any.whl.metadata (6.8 kB)

Collecting geographiclib<3,>=1.52 (from geopy)

 Obtaining dependency information for geographiclib<3,>=1.52 from https://files.pythonhosted.org/packages/9f/5a/a26132406f1f40cf51ea349a5f11b0a46cec02a2031ff82e391c2537247a/geographiclib-2.0-py3-none-any.whl.metadata

 Downloading geographiclib-2.0-py3-none-any.whl.metadata (1.4 kB)

Downloading geopy-2.4.1-py3-none-any.whl (125 kB)

━━

125.4/125.4 kB 2.5 MB/s eta 0:00:00

Downloading geographiclib-2.0-py3-none-any.whl (40 kB)

━━

40.3/40.3 kB ? eta 0:00:00

Installing collected packages: geographiclib, geopy

Successfully installed geographiclib-2.0 geopy-2.4.1

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\julian.py"

Calendar Date: 2025-02-20

Julian Date: 2460726.5

Modified Julian Date: 60726.0

Date: 2025-02-20

Date: 02-20-25

Day of Week: Thursday

Month: February

Year: 2025

30 days after the first day of classes

76 days before the last day of classes

2025-02-20 15:56:02.666369

2025-02-20 15:56:02.666369

2025-02-20 20:56:02.666369

1740084962.6663694

Thu Feb 20 15:56:02 2025

2025-02-20 15:56:02.675204

2025-02-20 20:56:02.675204

Thu Feb 20 15:56:10 2025

Thu Feb 20 15:56:20 2025

Thu Feb 20 15:56:30 2025

Thu Feb 20 15:56:40 2025

Thu Feb 20 15:56:50 2025

Thu Feb 20 15:57:00 2025

Thu Feb 20 15:57:10 2025

Thu Feb 20 15:57:20 2025

Thu Feb 20 15:57:30 2025

Thu Feb 20 15:57:40 2025

Thu Feb 20 15:57:50 2025

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\sun.py" "New York"

Information for New York/USA

Timezone: US/Eastern

Latitude: 40.72; Longitude: -74.00

Dawn: 2025-02-20 06:14:37.820110-05:00

Sunrise: 2025-02-20 06:42:56.630762-05:00

Noon: 2025-02-20 12:09:44-05:00

Sunset: 2025-02-20 17:36:57.971787-05:00

Dusk: 2025-02-20 18:05:18.463460-05:00

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\moon.py"

2025-02-20 Moon Phase: 20

2025-02-21 Moon Phase: 21

2025-02-22 Moon Phase: 22

2025-02-23 Moon Phase: 23

2025-02-24 Moon Phase: 24

2025-02-25 Moon Phase: 25

2025-02-26 Moon Phase: 26

2025-02-27 Moon Phase: 27

2025-02-28 Moon Phase: 0

2025-03-01 Moon Phase: 1

2025-03-02 Moon Phase: 2

2025-03-03 Moon Phase: 3

2025-03-04 Moon Phase: 4

2025-03-05 Moon Phase: 5

2025-03-06 Moon Phase: 6

2025-03-07 Moon Phase: 7

2025-03-08 Moon Phase: 8

2025-03-09 Moon Phase: 9

2025-03-10 Moon Phase: 10

2025-03-11 Moon Phase: 11

2025-03-12 Moon Phase: 12

2025-03-13 Moon Phase: 13

2025-03-14 Moon Phase: 14

2025-03-15 Moon Phase: 15

2025-03-16 Moon Phase: 15

2025-03-17 Moon Phase: 16

2025-03-18 Moon Phase: 17

2025-03-19 Moon Phase: 18

2025-03-20 Moon Phase: 19

2025-03-21 Moon Phase: 20

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\coordinates.py" "Samuel C. Williams Library"

Samuel C. Williams Library, Field House Road, Uptown, Hoboken, Hudson County, New Jersey, 07030, United States

(40.74480675, -74.02532861159351)

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\address.py" "40.74480675, -74.02532861159351"

Stevens Institute of Technology, 1, Wittpenn Walk, Uptown, Hoboken, Hudson County, New Jersey, 07030, United States

(40.744809599999996, -74.0252392276461)

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\cpu.py"

The number of physical cores = 14

The number of logical CPUs = 20

The utilization per second as a percentage for each CPU

[0.0, 3.1, 1.6, 3.1, 3.1, 10.9, 9.4, 9.4, 0.0, 1.6, 4.7, 4.7, 3.1, 1.6, 4.7, 3.1, 4.6, 6.2, 13.4, 15.9]

[1.6, 1.6, 3.1, 3.2, 3.2, 4.8, 3.1, 3.1, 0.0, 1.6, 0.0, 0.0, 4.7, 3.1, 3.1, 6.2, 12.5, 4.7, 9.0, 10.8]

[4.6, 0.0, 3.0, 1.6, 3.1, 7.7, 12.5, 7.8, 3.1, 3.1, 1.5, 1.6, 3.1, 3.1, 3.1, 1.5, 0.0, 7.7, 13.4, 21.1]

[0.0, 4.6, 4.8, 0.0, 9.2, 7.8, 7.8, 11.1, 0.0, 3.2, 1.6, 3.2, 1.6, 3.2, 1.6, 1.6, 14.9, 4.8, 9.2, 35.7]

[0.0, 1.6, 1.6, 0.0, 13.6, 3.1, 4.7, 9.2, 1.6, 1.6, 4.6, 1.6, 3.1, 3.1, 6.2, 6.2, 7.7, 7.7, 4.6, 7.7]

[0.0, 3.1, 6.2, 1.6, 6.2, 12.5, 6.2, 10.9, 0.0, 9.2, 7.6, 0.0, 1.6, 1.6, 7.7, 6.2, 6.2, 6.2, 6.1, 7.7]

[0.0, 1.6, 4.6, 0.0, 7.7, 6.2, 10.8, 9.2, 1.6, 3.1, 3.1, 6.2, 3.1, 4.7, 4.6, 4.7, 3.1, 1.6, 13.4, 9.1]

[0.0, 1.6, 3.1, 3.1, 4.6, 9.2, 6.2, 9.2, 0.0, 3.1, 7.7, 0.0, 6.2, 4.7, 7.6, 6.2, 0.0, 1.6, 0.0, 1.6]

[0.0, 4.5, 6.3, 4.5, 6.2, 21.2, 13.8, 9.4, 1.6, 0.0, 3.0, 4.6, 0.0, 7.7, 4.6, 6.2, 3.1, 0.0, 6.1, 18.3]

[0.0, 6.2, 4.7, 0.0, 17.2, 6.2, 10.8, 12.3, 0.0, 6.2, 4.8, 4.7, 6.3, 3.2, 9.5, 7.9, 12.7, 7.9, 17.2, 12.3]

PS C:\Users\Chris Longo\iot\lesson3> python -u "c:\Users\Chris Longo\iot\lesson3\battery.py"

sbattery(percent=100, secsleft=<BatteryTime.POWER_TIME_UNLIMITED: -2>, power_plugged=True)

PS C:\Users\Chris Longo\iot\lesson3> python3 documentstats.py document.txt

Word Count: 1343

Top Ten Words: [('our', 26), ('their', 20), ('has', 20), ('he', 19), ('them', 15), ('these', 13), ('have', 11), ('we', 11), ('us', 11), ('people', 10)]