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PS C:\Users\andre\downloads\iot\lesson3> pip3 install jdcal
Collecting jdcal
  Obtaining dependency information for jdcal from https://files.pythonhosted.org/packages/f0/da/572cbc0bc582390480bbd7c4e93d14dc460797
4.1-py2.py3-none-any.whl.metadata
  Downloading jdcal-1.4.1-py2.py3-none-any.whl.metadata (5.0 kB)
Downloaded 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 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> pip3 install astral
Collecting astral
  Obtaining dependency information for astral from https://files.pythonhosted.org/packages/2d/80/d6edd9c3259913cfe39aff2bea4da65de5ad6
3.2-py3-none-any.whl.metadata
  Downloading astral-3.2-py3-none-any.whl.metadata (1.7 kB)
Requirement already satisfied: tzdata in c:\python311\lib\site-packages (from astral) (2023.3)
Downloaded astral-3.2-py3-none-any.whl (38 kB)
Installing collected packages: astral
Successfully installed astral-3.2

[notice] A new release of pip is available: 23.2.1 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> pip3 install geopy
Collecting geopy
  Obtaining dependency information for geopy from https://files.pythonhosted.org/packages/e5/15/cf2a69ade4b194aa524ac75112d5caac37414b
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/a26132406f1f40cf51ea3
2537247a/geographiclib-2.0-py3-none-any.whl.metadata
  Downloading geographiclib-2.0-py3-none-any.whl.metadata (1.4 kB)
Downloaded geopy-2.4.1-py3-none-any.whl (125 kB)
125.4/125.4 kB 3.6 MB/s eta 0:00:00
Downloaded geographiclib-2.0-py3-none-any.whl (40 kB)
40.3/40.3 kB 1.9 MB/s eta 0:00:00
Installing collected packages: geographiclib, geopy
Successfully installed geographiclib-2.0 geopy-2.4.1

[notice] A new release of pip is available: 23.2.1 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> |

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## Installation of libraries

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Windows PowerShell
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> python julian.py
Calendar Date: 2024-05-06
Julian Date: 2460436.5
Modified Julian Date: 60436.0
PS C:\Users\andre\downloads\iot\lesson3> python date_example.py
Date: 2024-05-06
Date: 05-06-24
Day of Week: Monday
Month: May
Year: 2024
110 days after the first day of classes
-4 days before the last day of classes
PS C:\Users\andre\downloads\iot\lesson3> python datetime_example.py
2024-05-06 00:36:28.241892
2024-05-06 00:36:28.241891
2024-05-06 04:36:28.241891
1714970188.2418916
Mon May 6 00:36:28 2024
2024-05-06 00:36:28.241892
2024-05-06 04:36:28.241892
PS C:\Users\andre\downloads\iot\lesson3> python sun.py "New York"
Traceback (most recent call last):
  File "C:\Users\andre\downloads\iot\lesson3\sun.py", line 1, in <module>
    import sys, pytz
ModuleNotFoundError: No module named 'pytz'
PS C:\Users\andre\downloads\iot\lesson3> pip3 install pytz
Collecting pytz
  Obtaining dependency information for pytz from https://files.pythonhosted.org/packages/9c/3d/a121f284241f08268b21359bd425f7d4825c5c5ac5cd0e1b3d82ffd2b10/pytz-2024
.1-py2.py3-none-any.whl.metadata
  Downloading pytz-2024.1-py2.py3-none-any.whl.metadata (22 kB)
Downloaded pytz-2024.1-py2.py3-none-any.whl (505 kB)
505.5/505.5 kB 7.9 MB/s eta 0:00:00
Installing collected packages: pytz
Successfully installed pytz-2024.1

[notice] A new release of pip is available: 23.2.1 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> python sun.py "New York"
Information for New York/USA

Timezone: US/Eastern
Latitude: 40.72; Longitude: -74.00

Dawn: 2024-05-06 05:17:18.435699-04:00
Sunrise: 2024-05-06 05:48:06.804333-04:00
Noon: 2024-05-06 12:52:37-04:00
Sunset: 2024-05-06 19:57:41.206319-04:00
Dusk: 2024-05-06 20:28:36.200527-04:00
PS C:\Users\andre\downloads\iot\lesson3> |

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Windows PowerShell
Moon: 2024-05-06 12:52:37-04:00
Sunset: 2024-05-06 19:57:41.206319-04:00
Dusk: 2024-05-06 20:28:36.200527-04:00
PS C:\Users\andre\downloads\iot\lesson3> moon.py
moon.py : The term 'moon.py' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path
was included, verify that the path is correct and try again.
At line:1 char:1
+ moon.py
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (moon.py:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

Suggestion [3,General]: The command moon.py was not found, but does exist in the current location. Windows PowerShell does not load commands from the current locatio
n by default. If you trust this command, instead type: ".\moon.py". See "get-help about_Command_Precedence" for more details.
PS C:\Users\andre\downloads\iot\lesson3> python moon.py
2024-05-06 Moon Phase: 26
2024-05-07 Moon Phase: 27
2024-05-08 Moon Phase: 0
2024-05-09 Moon Phase: 1
2024-05-10 Moon Phase: 2
2024-05-11 Moon Phase: 3
2024-05-12 Moon Phase: 4
2024-05-13 Moon Phase: 5
2024-05-14 Moon Phase: 6
2024-05-15 Moon Phase: 7
2024-05-16 Moon Phase: 7
2024-05-17 Moon Phase: 8
2024-05-18 Moon Phase: 9
2024-05-19 Moon Phase: 10
2024-05-20 Moon Phase: 11
2024-05-21 Moon Phase: 12
2024-05-22 Moon Phase: 13
2024-05-23 Moon Phase: 13
2024-05-24 Moon Phase: 14
2024-05-25 Moon Phase: 15
2024-05-26 Moon Phase: 16
2024-05-27 Moon Phase: 17
2024-05-28 Moon Phase: 18
2024-05-29 Moon Phase: 19
2024-05-30 Moon Phase: 20
2024-05-31 Moon Phase: 21
2024-06-01 Moon Phase: 22
2024-06-02 Moon Phase: 23
2024-06-03 Moon Phase: 24
2024-06-04 Moon Phase: 25
PS C:\Users\andre\downloads\iot\lesson3> python 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\andre\downloads\iot\lesson3> |
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Windows PowerShell
2024-05-29 Moon Phase: 19
2024-05-30 Moon Phase: 20
2024-05-31 Moon Phase: 21
2024-06-01 Moon Phase: 22
2024-06-02 Moon Phase: 23
2024-06-03 Moon Phase: 24
2024-06-04 Moon Phase: 25
PS C:\Users\andre\downloads\iot\lesson3> python 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\andre\downloads\iot\lesson3> python address.py "40.74480675, -74.02532861159351"
Samuel C. Williams Library, Field House Road, Uptown, Hoboken, Hudson County, New Jersey, 07030, United States
(40.74480675, -74.02532861159351)
PS C:\Users\andre\downloads\iot\lesson3> python cpu.py
Traceback (most recent call last):
  File "C:\Users\andre\downloads\iot\lesson3\cpu.py", line 2, in <module>
    import psutil
ModuleNotFoundError: No module named 'psutil'
PS C:\Users\andre\downloads\iot\lesson3> pip3 install psutil
Collecting psutil
  Obtaining dependency information for psutil from https://files.pythonhosted.org/packages/93/52/3e39d26feae7df0aa0fd510b14012c3678b36ed068f7d78b8d8784d61f0e/psutil-
5.9.8-cp37-abi3-win_amd64.whl.metadata
    Downloading psutil-5.9.8-cp37-abi3-win_amd64.whl.metadata (22 kB)
    Downloading psutil-5.9.8-cp37-abi3-win_amd64.whl (255 kB)
       255.1/255.1 kB 7.7 MB/s eta 0:00:00
Installing collected packages: psutil
Successfully installed psutil-5.9.8

[notice] A new release of pip is available: 23.2.1 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\andre\downloads\iot\lesson3> python cpu.py
The number of physical cores = 6
The number of logical CPUs = 12
The utilization per second as a percentage for each CPU
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[1.6, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
[0.0, 0.0, 0.0, 0.0, 0.0, 3.2, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0]
PS C:\Users\andre\downloads\iot\lesson3> python battery.py
None
PS C:\Users\andre\downloads\iot\lesson3> python 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)]
PS C:\Users\andre\downloads\iot\lesson3> |
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This lab was all about Python, we learned to install python libraries as well as run python scripts through the terminal.