```
Jupyter QtConsole 5.5.0
Python 3.8.17 (default, Jul  5 2023, 20:44:21) [MSC v.1916 64 bit (AMD64)]
Type 'copyright', 'credits' or 'license' for more information
IPython 8.12.2 -- An enhanced Interactive Python. Type '?' for help.

In [1]: ls
 Volume in drive C has no label.
 Volume Serial Number is 1AD9-CBDD

 Directory of C:\Users\ijzep

2024-02-11  04:07 PM    <DIR>          .
2023-09-28  12:09 AM    <DIR>          ..
2023-10-08  12:07 AM    <DIR>          .anaconda
2024-02-11  04:07 PM    <DIR>          .astropy
2024-02-11  01:57 PM    <DIR>          .cache
2024-02-10  09:37 PM    <DIR>          .conda
2023-10-08  12:07 AM                25 .condarc
2023-10-08  12:06 AM    <DIR>          .continuum
2023-10-19  11:18 AM    <DIR>          .ipynb_checkpoints
2023-10-19  11:19 AM    <DIR>          .ipython
2024-02-11  04:10 PM    <DIR>          .jupyter
2024-02-09  03:41 PM    <DIR>          .keras
2023-09-28  12:44 PM    <DIR>          .MakeMKV
2024-02-11  01:57 PM    <DIR>          .matplotlib
2024-01-23  11:52 PM    <DIR>          .vscode
2023-10-19  11:18 AM    <DIR>          _GTA
2024-02-09  03:33 PM    <DIR>          _IA_LAMBTON
2024-02-11  03:11 PM    <DIR>          anaconda3
2023-09-28  12:17 AM    <DIR>          ansel
2023-09-27  11:52 PM    <DIR>          Contacts
2023-09-27  11:54 PM    <DIR>          Documents
2024-02-11  02:40 PM    <DIR>          Downloads
2023-09-27  11:52 PM    <DIR>          Favorites
2024-01-23  11:52 PM    <DIR>          HANSON
2023-09-27  11:52 PM    <DIR>          Links
2023-12-03  10:37 PM    <DIR>          Muse test 1
2024-01-19  07:36 PM    <DIR>          Music
2023-11-11  08:27 PM    <DIR>          My project
2023-09-28  01:27 PM    <DIR>          OneDrive
2024-01-24  12:12 AM    <DIR>          Postman
2023-09-27  11:52 PM    <DIR>          Saved Games
2023-09-28  12:09 AM    <DIR>          Searches
2024-02-11  11:19 AM    <DIR>          Videos
               1 File(s)             25 bytes
              32 Dir(s)  35,659,599,872 bytes free

In [2]: cd _IA_LAMBTON
C:\Users\ijzep\_IA_LAMBTON

In [3]: dit
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[3], line 1
----> 1 dit

NameError: name 'dit' is not defined

In [4]: dir
Out[4]: <function dir>

In [5]: ls
 Volume in drive C has no label.
 Volume Serial Number is 1AD9-CBDD

 Directory of C:\Users\ijzep\_IA_LAMBTON

2024-02-09  03:33 PM    <DIR>          .
```

```
2024-02-11  04:07 PM    <DIR>              ..
2024-02-09  03:30 PM    <DIR>              .ipynb_checkpoints
2024-02-11  04:32 PM    <DIR>              Capstone
               0 File(s)              0 bytes
               4 Dir(s)  35,646,709,760 bytes free
```

In [**6**]: cd Capstone/
C:\Users\ijzep_IA_LAMBTON\Capstone

In [**7**]: ls
 Volume in drive C has no label.
 Volume Serial Number is 1AD9-CBDD

 Directory of C:\Users\ijzep_IA_LAMBTON\Capstone

```
2024-02-11  04:32 PM    <DIR>              .
2024-02-09  03:33 PM    <DIR>              ..
2024-02-11  02:42 PM    <DIR>              .ipynb_checkpoints
2024-02-09  11:28 AM     2,130,757,290 Fruits and Vegetables Image Recognition Dataset.zip
2024-02-09  04:25 PM       120,506,888 FVIR_model_0902_0-01.h5
2024-02-09  03:35 PM    <DIR>              FVIRD
2024-02-10  02:15 AM            47,586 ingredient_classification.ipynb
2024-02-11  04:32 PM    <DIR>              SAM
2024-02-11  04:32 PM         1,334,798 SAM_predictor_example.ipynb
2024-02-10  11:30 PM    <DIR>              sam_test
2024-02-11  02:06 PM            10,111 SAM_test_2.ipynb
2024-02-11  04:05 PM    <DIR>              SAM_test_vw_0
2024-02-11  02:05 PM            10,310 Sam_test1.ipynb
               6 File(s)  2,252,666,983 bytes
               7 Dir(s)  35,646,697,472 bytes free
```

In [**8**]: cd SAM
C:\Users\ijzep_IA_LAMBTON\Capstone\SAM

In [**9**]: ls
 Volume in drive C has no label.
 Volume Serial Number is 1AD9-CBDD

 Directory of C:\Users\ijzep_IA_LAMBTON\Capstone\SAM

```
2024-02-11  04:32 PM    <DIR>              .
2024-02-11  04:32 PM    <DIR>              ..
2024-02-10  11:24 PM       375,042,383 sam_vit_b_01ec64.pth
2024-02-10  11:28 PM     2,564,550,879 sam_vit_h_4b8939.pth
2024-02-10  11:26 PM     1,249,524,607 sam_vit_l_0b3195.pth
2024-02-11  04:32 PM    <DIR>              segment-anything-main
               3 File(s)  4,189,117,869 bytes
               3 Dir(s)  35,643,699,200 bytes free
```

In [**10**]: conda activate sem3

Note: you may need to restart the kernel to use updated packages.

In [**11**]: cd segment-anything-main/
C:\Users\ijzep_IA_LAMBTON\Capstone\SAM\segment-anything-main

In [**12**]: conda install .
Collecting package metadata (current_repodata.json): ...working... done
Solving environment: ...working... unsuccessful initial attempt using frozen solve. Retrying with flexible
solve.
Collecting package metadata (repodata.json): ...working... done
Solving environment: ...working... unsuccessful initial attempt using frozen solve. Retrying with flexible
solve.

Note: you may need to restart the kernel to use updated packages.

PackagesNotFoundError: The following packages are not available from current channels:

```
   - .

Current channels:

  - https://repo.anaconda.com/pkgs/main/win-64
  - https://repo.anaconda.com/pkgs/main/noarch
  - https://repo.anaconda.com/pkgs/r/win-64
  - https://repo.anaconda.com/pkgs/r/noarch
  - https://repo.anaconda.com/pkgs/msys2/win-64
  - https://repo.anaconda.com/pkgs/msys2/noarch

To search for alternate channels that may provide the conda package you're
looking for, navigate to

    https://anaconda.org

and use the search bar at the top of the page.
```

```
In [13]: pip3 install git+https://github.com/facebookresearch/segment-anything.git
  Cell In[13], line 1
    pip3 install git+https://github.com/facebookresearch/segment-anything.git
         ^
SyntaxError: invalid syntax
```

```
In [14]: pip install git+https://github.com/facebookresearch/segment-anything.git
Collecting git+https://github.com/facebookresearch/segment-anything.git
  Cloning https://github.com/facebookresearch/segment-anything.git to c:\users\ijzep\appdata\local\temp\pip-
req-build-rf27m3sg
  Resolved https://github.com/facebookresearch/segment-anything.git to commit
6fdee8f2727f4506cfbbe553e23b895e27956588
  Preparing metadata (setup.py): started
  Preparing metadata (setup.py): finished with status 'done'
Building wheels for collected packages: segment-anything
  Building wheel for segment-anything (setup.py): started
  Building wheel for segment-anything (setup.py): finished with status 'done'
  Created wheel for segment-anything: filename=segment_anything-1.0-py3-none-any.whl size=36830
sha256=f284ea5c48a55637d1074368b85e1d40271c00350cf3e4b846ddda18ef84356d
  Stored in directory: C:\Users\ijzep\AppData\Local\Temp\pip-ephem-wheel-
cache-5r0ij6te\wheels\b0\7e\40\20f0b1e23280cc4a66dc8009c29f42cb4afc1b205bc5814786
Successfully built segment-anything
Installing collected packages: segment-anything
Successfully installed segment-anything-1.0
Note: you may need to restart the kernel to use updated packages.
  Running command git clone --filter=blob:none --quiet https://github.com/facebookresearch/segment-
anything.git 'C:\Users\ijzep\AppData\Local\Temp\pip-req-build-rf27m3sg'
```

```
In [15]: pip install opencv-python pycocotools matplotlib onnxruntime onnx
Collecting opencv-python
  Using cached opencv_python-4.9.0.80-cp37-abi3-win_amd64.whl.metadata (20 kB)
Collecting pycocotools
  Downloading pycocotools-2.0.7-cp38-cp38-win_amd64.whl.metadata (1.1 kB)
Requirement already satisfied: matplotlib in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (3.7.2)
Collecting onnxruntime
  Downloading onnxruntime-1.17.0-cp38-cp38-win_amd64.whl.metadata (4.3 kB)
Collecting onnx
  Downloading onnx-1.15.0-cp38-cp38-win_amd64.whl.metadata (15 kB)
Requirement already satisfied: numpy>=1.17.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
opencv-python) (1.24.3)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
matplotlib) (1.0.5)
Requirement already satisfied: cycler>=0.10 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
matplotlib) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
matplotlib) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
```

```
matplotlib) (1.4.4)
Requirement already satisfied: packaging>=20.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
matplotlib) (23.1)
Requirement already satisfied: pillow>=6.2.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
matplotlib) (10.2.0)
Requirement already satisfied: pyparsing<3.1,>=2.3.1 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages
(from matplotlib) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages
(from matplotlib) (2.8.2)
Requirement already satisfied: importlib-resources>=3.2.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-
packages (from matplotlib) (6.1.1)
Collecting coloredlogs (from onnxruntime)
  Downloading coloredlogs-15.0.1-py2.py3-none-any.whl (46 kB)
     ---------------------------------------- 0.0/46.0 kB ? eta -:--:--
     ------------------------ ------------ 30.7/46.0 kB 660.6 kB/s eta 0:00:01
     ---------------------------------------- 46.0/46.0 kB 761.2 kB/s eta 0:00:00
Collecting flatbuffers (from onnxruntime)
  Downloading flatbuffers-23.5.26-py2.py3-none-any.whl.metadata (850 bytes)
Requirement already satisfied: protobuf in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
onnxruntime) (3.20.3)
Requirement already satisfied: sympy in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from onnxruntime)
(1.12)
Requirement already satisfied: zipp>=3.1.0 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
importlib-resources>=3.2.0->matplotlib) (3.17.0)
Requirement already satisfied: six>=1.5 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from python-
dateutil>=2.7->matplotlib) (1.16.0)
Collecting humanfriendly>=9.1 (from coloredlogs->onnxruntime)
  Downloading humanfriendly-10.0-py2.py3-none-any.whl (86 kB)
     ---------------------------------------- 0.0/86.8 kB ? eta -:--:--
     ---------------------------------------- 86.8/86.8 kB 4.8 MB/s eta 0:00:00
Requirement already satisfied: mpmath>=0.19 in c:\users\ijzep\.conda\envs\sem3\lib\site-packages (from
sympy->onnxruntime) (1.3.0)
Collecting pyreadline3 (from humanfriendly>=9.1->coloredlogs->onnxruntime)
  Downloading pyreadline3-3.4.1-py3-none-any.whl (95 kB)
     ---------------------------------------- 0.0/95.2 kB ? eta -:--:--
     ---------------------------------------- 95.2/95.2 kB ? eta 0:00:00
Using cached opencv_python-4.9.0.80-cp37-abi3-win_amd64.whl (38.6 MB)
Downloading pycocotools-2.0.7-cp38-cp38-win_amd64.whl (85 kB)
     ---------------------------------------- 0.0/85.3 kB ? eta -:--:--
     ---------------------------------------- 85.3/85.3 kB ? eta 0:00:00
Downloading onnxruntime-1.17.0-cp38-cp38-win_amd64.whl (5.6 MB)
     ---------------------------------------- 0.0/5.6 MB ? eta -:--:--
     ---- ----------------------------------- 0.6/5.6 MB 19.8 MB/s eta 0:00:01
     --------- ------------------------------ 1.4/5.6 MB 14.5 MB/s eta 0:00:01
     -------------- ------------------------- 2.2/5.6 MB 15.3 MB/s eta 0:00:01
     ------------------- -------------------- 2.8/5.6 MB 14.9 MB/s eta 0:00:01
     ---------------------- ----------------- 3.5/5.6 MB 14.7 MB/s eta 0:00:01
     -------------------------- ------------- 4.3/5.6 MB 15.1 MB/s eta 0:00:01
     ----------------------------- ---------- 4.8/5.6 MB 14.7 MB/s eta 0:00:01
     ------------------------------- -------- 5.1/5.6 MB 13.7 MB/s eta 0:00:01
     --------------------------------------- 5.6/5.6 MB 13.2 MB/s eta 0:00:01
     ---------------------------------------- 5.6/5.6 MB 12.3 MB/s eta 0:00:00
Downloading onnx-1.15.0-cp38-cp38-win_amd64.whl (14.3 MB)
     ---------------------------------------- 0.0/14.3 MB ? eta -:--:--
     - -------------------------------------- 0.5/14.3 MB 10.2 MB/s eta 0:00:02
     -- ------------------------------------- 0.9/14.3 MB 9.2 MB/s eta 0:00:02
     --- ------------------------------------ 1.4/14.3 MB 9.7 MB/s eta 0:00:02
     ----- ---------------------------------- 1.8/14.3 MB 9.5 MB/s eta 0:00:02
     ------ --------------------------------- 2.3/14.3 MB 9.6 MB/s eta 0:00:02
     -------- ------------------------------- 2.9/14.3 MB 10.2 MB/s eta 0:00:02
     --------- ------------------------------ 3.5/14.3 MB 10.7 MB/s eta 0:00:02
     ---------- ----------------------------- 4.2/14.3 MB 11.2 MB/s eta 0:00:01
     ------------ --------------------------- 4.9/14.3 MB 11.6 MB/s eta 0:00:01
     --------------- ------------------------ 5.7/14.3 MB 12.2 MB/s eta 0:00:01
     ---------------- ----------------------- 6.5/14.3 MB 12.5 MB/s eta 0:00:01
     ------------------ --------------------- 7.2/14.3 MB 12.8 MB/s eta 0:00:01
     -------------------- ------------------- 8.0/14.3 MB 13.0 MB/s eta 0:00:01
     ----------------------- ---------------- 8.6/14.3 MB 13.1 MB/s eta 0:00:01
```

```
------------------------- ------------- 9.4/14.3 MB 13.4 MB/s eta 0:00:01
-------------------------- ----------- 10.1/14.3 MB 13.5 MB/s eta 0:00:01
-------------------------- ---------- 10.6/14.3 MB 13.4 MB/s eta 0:00:01
---------------------------- -------- 11.2/14.3 MB 13.9 MB/s eta 0:00:01
----------------------------- ------ 12.1/14.3 MB 14.6 MB/s eta 0:00:01
------------------------------ ---- 12.9/14.3 MB 14.9 MB/s eta 0:00:01
----------------------------------- - 13.7/14.3 MB 15.6 MB/s eta 0:00:01
------------------------------------ 14.3/14.3 MB 16.0 MB/s eta 0:00:01
------------------------------------ 14.3/14.3 MB 16.0 MB/s eta 0:00:01
------------------------------------ 14.3/14.3 MB 14.5 MB/s eta 0:00:00
```
Downloading flatbuffers-23.5.26-py2.py3-none-any.whl (26 kB)
Installing collected packages: pyreadline3, flatbuffers, opencv-python, onnx, humanfriendly, coloredlogs, pycocotools, onnxruntime
Successfully installed coloredlogs-15.0.1 flatbuffers-23.5.26 humanfriendly-10.0 onnx-1.15.0 onnxruntime-1.17.0 opencv-python-4.9.0.80 pycocotools-2.0.7 pyreadline3-3.4.1
Note: you may need to restart the kernel to use updated packages.

In [**16**]: