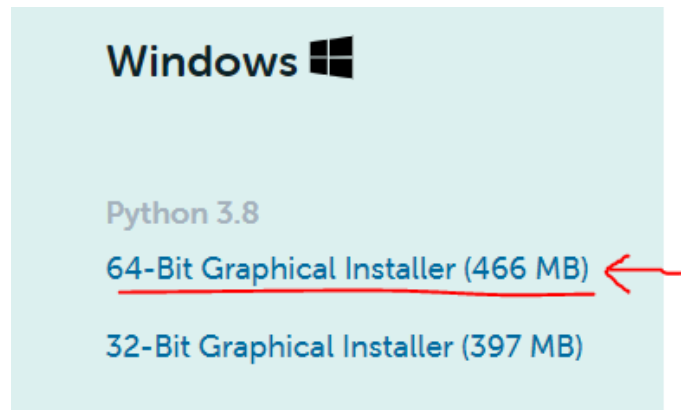
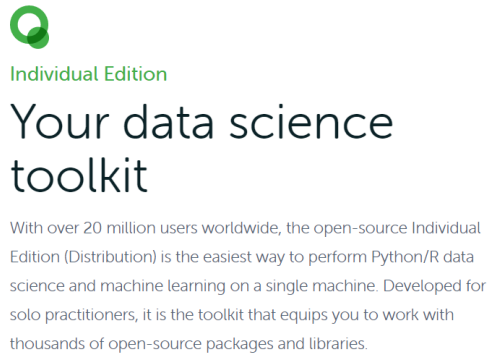


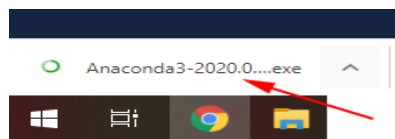
Assignment 2 Guide

Part One: Installation

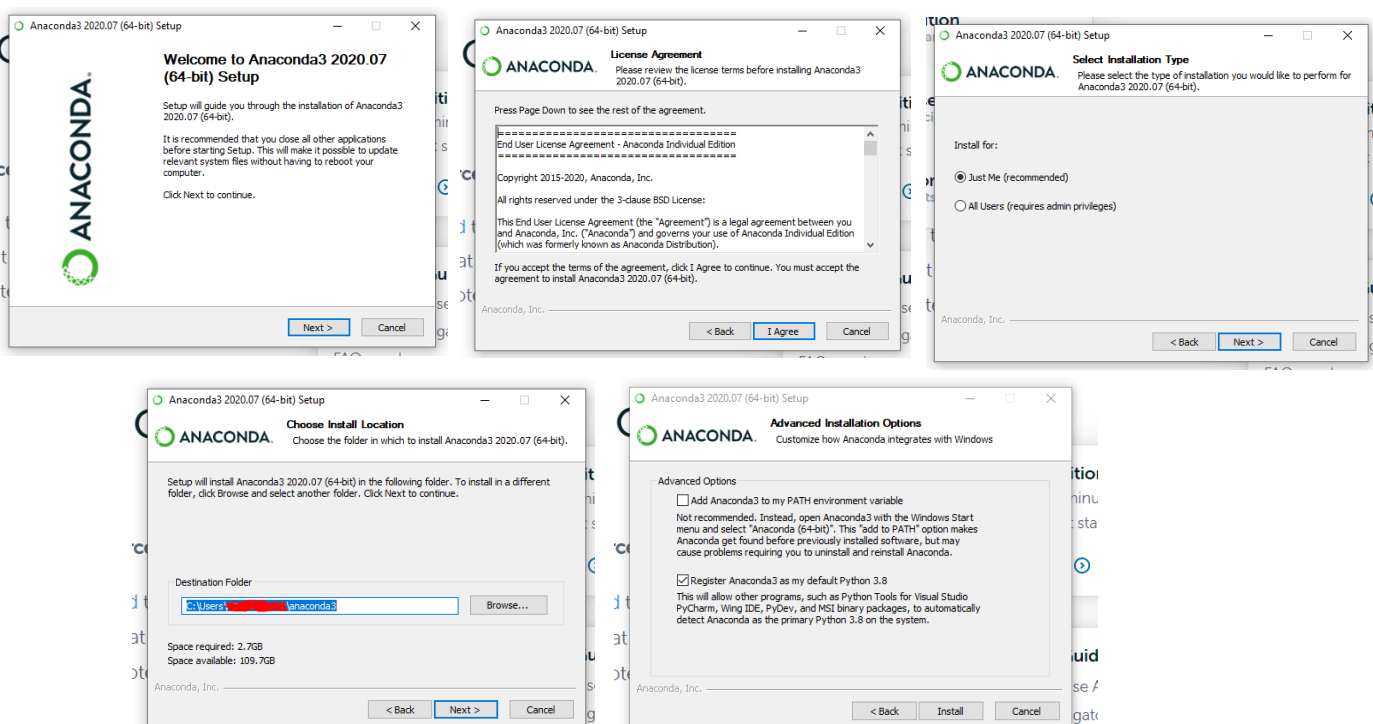
1. Install python 3 (via Anaconda 64 or 32-bit Graphical Installer).
download link: <https://www.anaconda.com/products/individual>



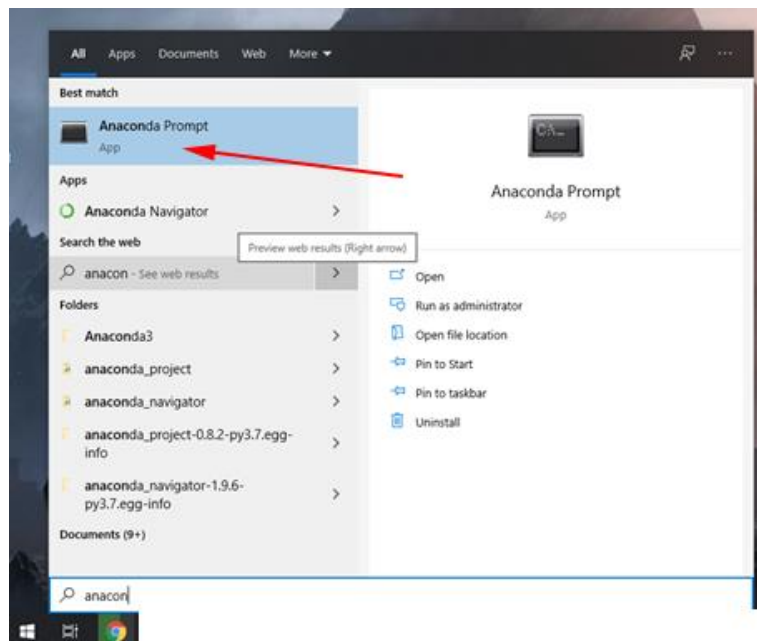
2. Open Anaconda installer



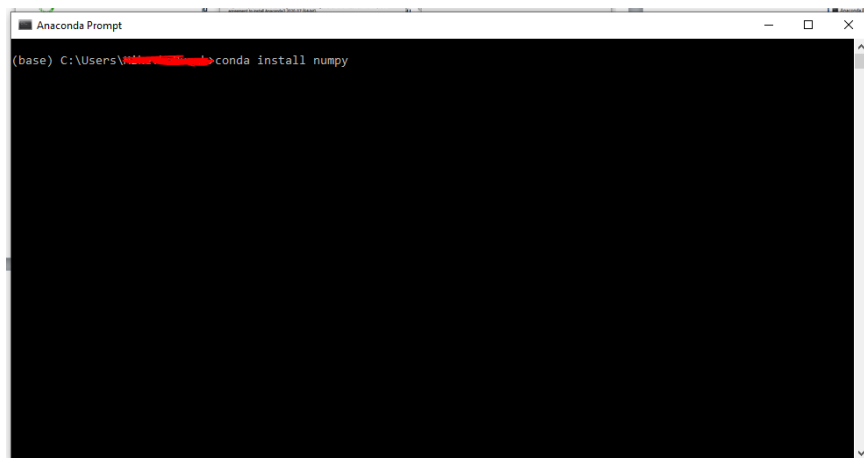
3. Click Next, I Agree, Next, Next, leave check boxes as is and Install.



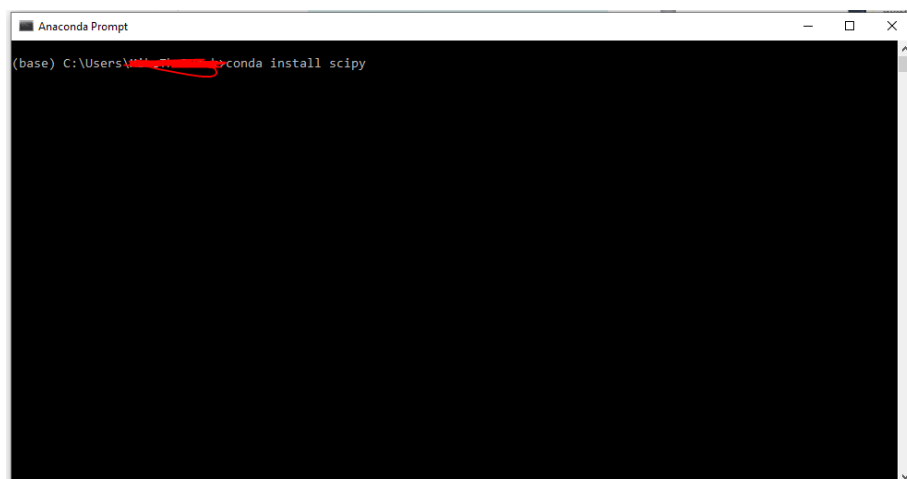
4. Click Start, and open Anaconda Prompt.



5. Installing necessary python libraries: In the terminal, type 'conda install numpy', and wait for download and installation to complete.



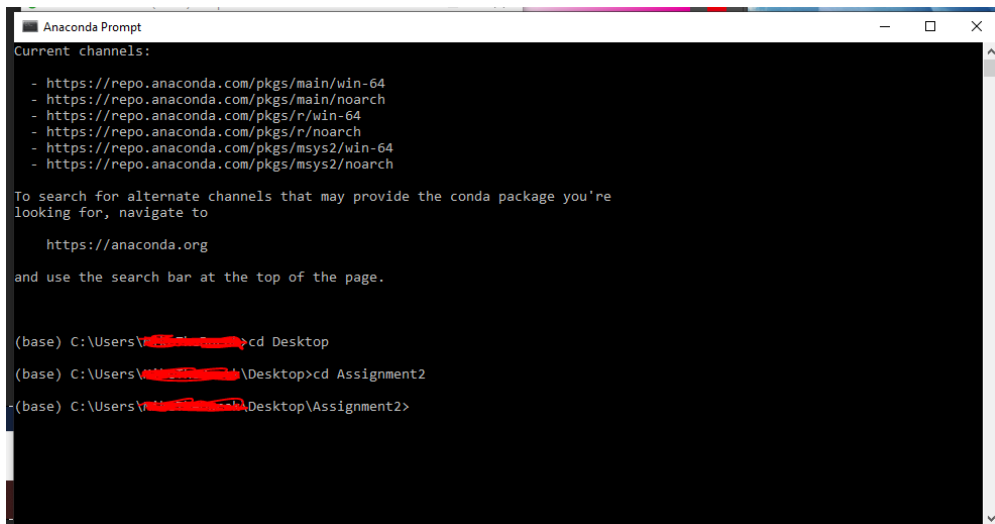
And then 'conda install scipy'



And lastly, 'pip install PyLTSpice'

Part Two: Execution

1. Unzip 'assignment2.zip' onto desktop. Copy your PWLInput (.csv) file into the SAME unzipped folder which contains 'assignment_2.py', as well as your circuit file (.asc).
2. Change the current directory to the path of the folder on the desktop by typing 'cd Desktop' to change path to Desktop, and then 'cd Assignment2' to change path to the correct folder.

A screenshot of an Anaconda Prompt window. The window title is "Anaconda Prompt". The terminal output shows the current channels and instructions on how to search for alternate channels. The user then enters three commands to change the directory: "cd Desktop", "cd Assignment2", and "cd Assignment2". The prompt changes from "(base) C:\Users\..." to "(base) C:\Users\...\Desktop" and finally to "(base) C:\Users\...\Desktop\Assignment2".

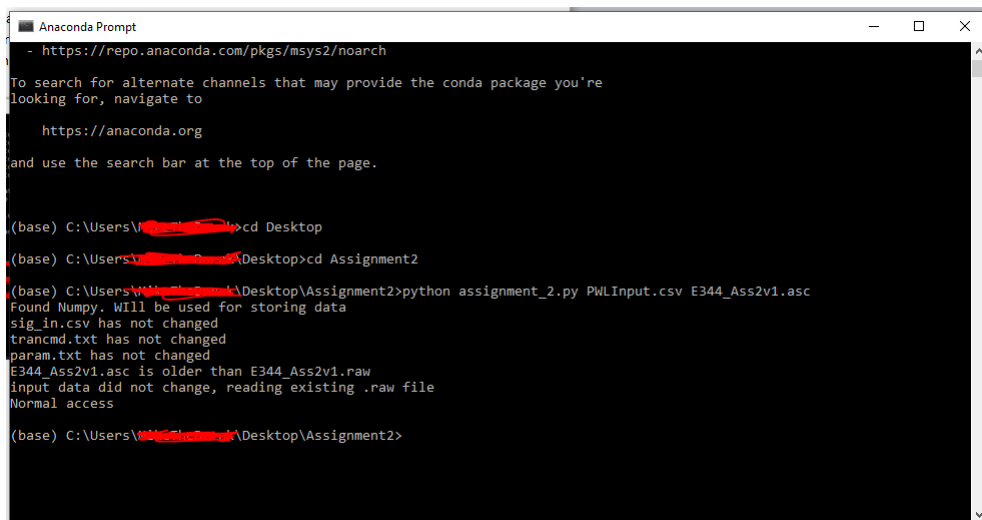
```
Anaconda Prompt
Current channels:
- https://repo.anaconda.com/pkgs/main/win-64
- https://repo.anaconda.com/pkgs/main/noarch
- https://repo.anaconda.com/pkgs/r/win-64
- https://repo.anaconda.com/pkgs/r/noarch
- https://repo.anaconda.com/pkgs/msys2/win-64
- https://repo.anaconda.com/pkgs/msys2/noarch

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.

(base) C:\Users\...>cd Desktop
(base) C:\Users\...\Desktop>cd Assignment2
(base) C:\Users\...\Desktop\Assignment2>
```

3. Execute `assignment_2.py` to simulate the circuit and generate an output. To do this, type
`'python assignment_2.py PWLInput.csv E344Ass2v1.asc'`

Where `PWLInput.csv` should be replaced with the name of your signal input file, and `E344Ass2v1.asc` should be replaced with your circuit filename. If you get something looking like the following output, it worked.



```

Anaconda Prompt
- 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.

(base) C:\Users\W...>cd Desktop
(base) C:\Users\W...>cd Desktop>cd Assignment2
(base) C:\Users\W...>python assignment_2.py PWLInput.csv E344_Ass2v1.asc
Found Numpy. Will be used for storing data
sig_in.csv has not changed
trancmd.txt has not changed
param.txt has not changed
E344_Ass2v1.asc is older than E344_Ass2v1.raw
input data did not change, reading existing .raw file
Normal access

(base) C:\Users\W...>
```

4. You should find 2 new files in the folder, a plot of the signal input and outputs named `'figure.png'` and the marker excel file named `'Output.csv'` containing the output values(timestep, VoutBeatPulses, VoutRateAnalogue) .

