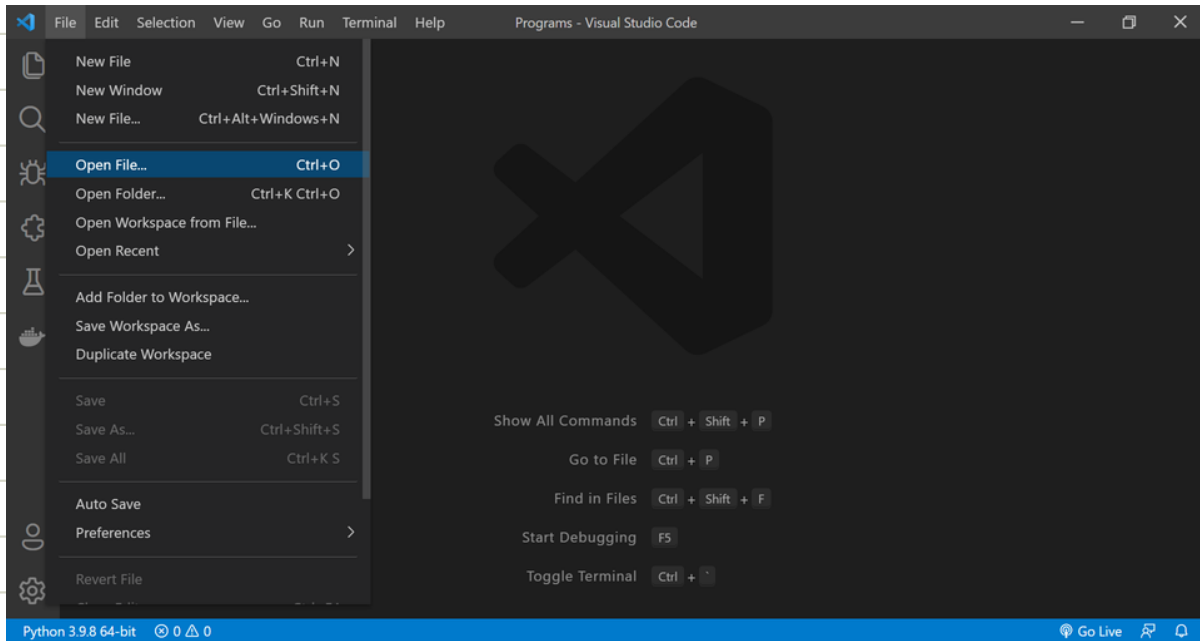


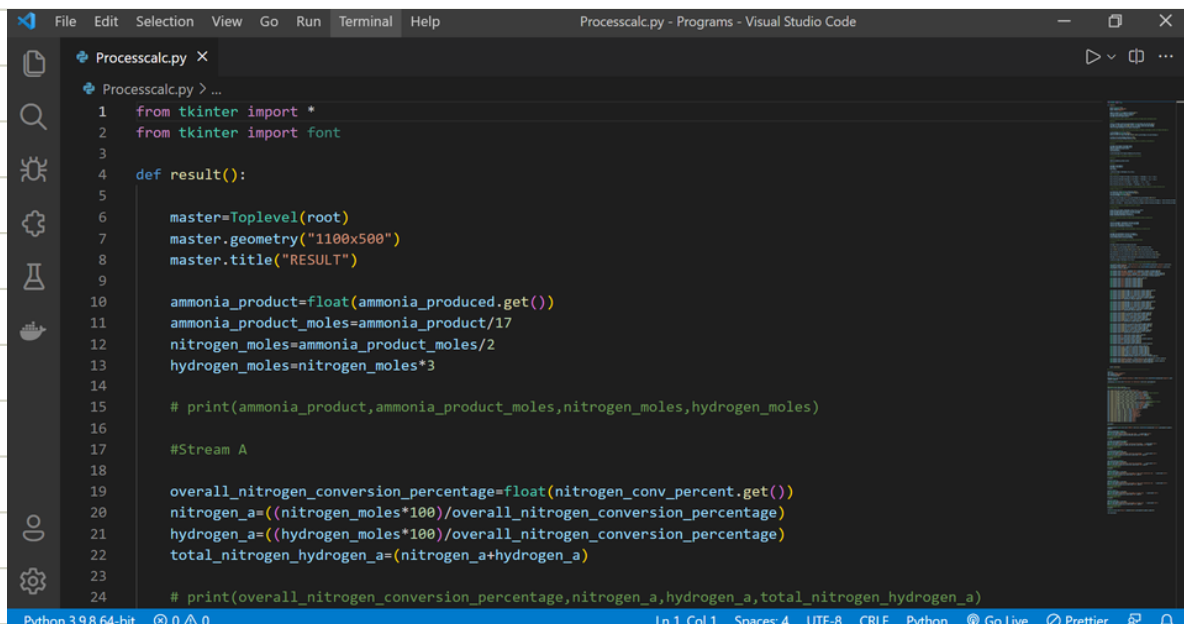
Feed Calculator Code

STEP-1: Install Python, VS Code or any other IDE

STEP-2: Open the file which we provided from the file destination your PC.

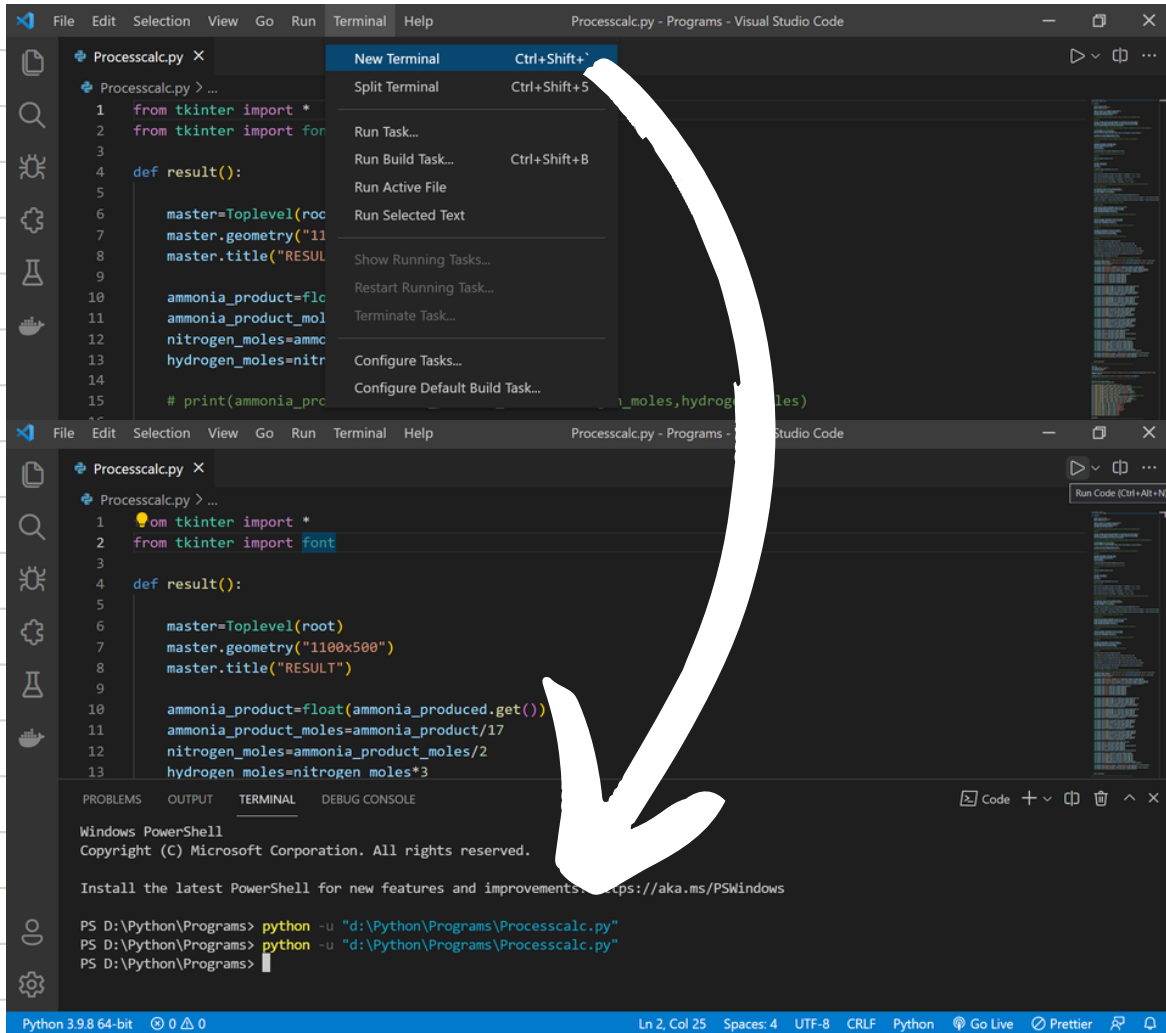


STEP-3: Install VS Code or any other IDE and open the file which we provided from the file destination your PC.



Feed Calculator Code

STEP-4: Before running the code please install "tkinter" module using pip command from the terminal in the following manner.



The screenshot shows the Visual Studio Code interface with the 'Processcalc.py' file open. The 'Run' menu is open, and 'New Terminal' is selected. A large white arrow points from the 'New Terminal' option to the terminal window below. The terminal window shows the command prompt with the command `python -u "d:\Python\Programs\Processcalc.py"` entered and executed.

```
Processcalc.py > ...
1 from tkinter import *
2 from tkinter import font
3
4 def result():
5
6     master=Toplevel(root)
7     master.geometry("1100x500")
8     master.title("RESULT")
9
10    ammonia_product=float(ammonia_product_moles/17)
11    ammonia_product_moles=ammonia_product*17
12    nitrogen_moles=ammonia_product_moles/2
13    hydrogen_moles=nitrogen_moles*3
14
15    # print(ammonia_product_moles,hydrogen_moles)
```

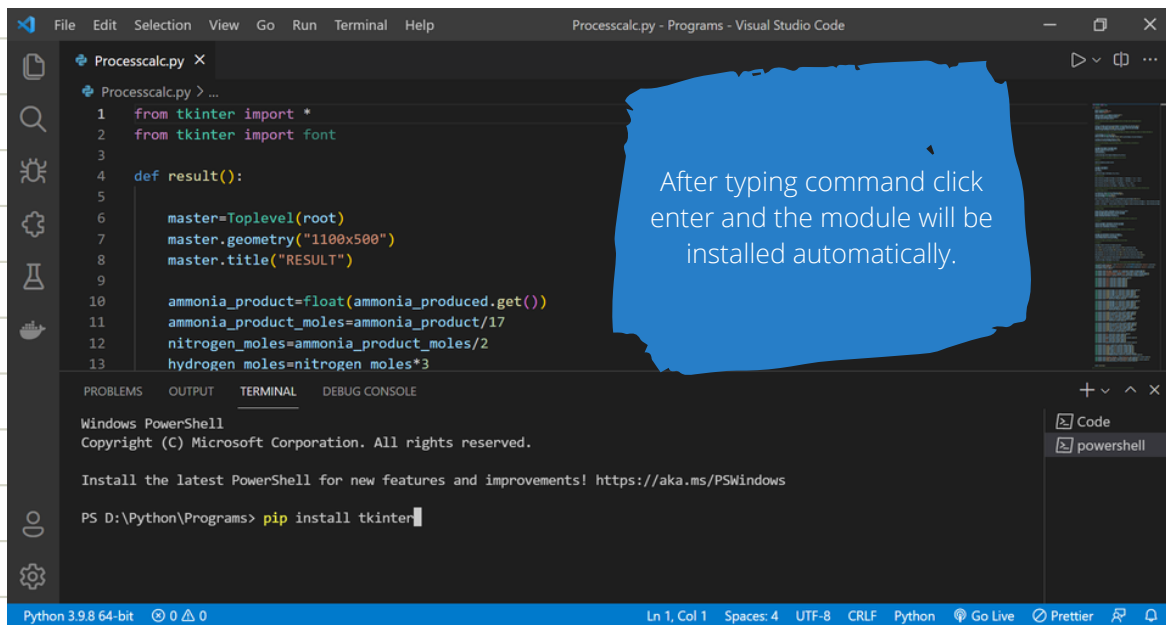
Windows PowerShell
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Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

PS D:\Python\Programs> python -u "d:\Python\Programs\Processcalc.py"

PS D:\Python\Programs> python -u "d:\Python\Programs\Processcalc.py"

PS D:\Python\Programs>



The screenshot shows the Visual Studio Code interface with the 'Processcalc.py' file open. The terminal window shows the command prompt with the command `pip install tkinter` entered. A blue text box explains that after typing the command and clicking enter, the module will be installed automatically.

```
Processcalc.py > ...
1 from tkinter import *
2 from tkinter import font
3
4 def result():
5
6     master=Toplevel(root)
7     master.geometry("1100x500")
8     master.title("RESULT")
9
10    ammonia_product=float(ammonia_product_moles/17)
11    ammonia_product_moles=ammonia_product*17
12    nitrogen_moles=ammonia_product_moles/2
13    hydrogen_moles=nitrogen_moles*3
```

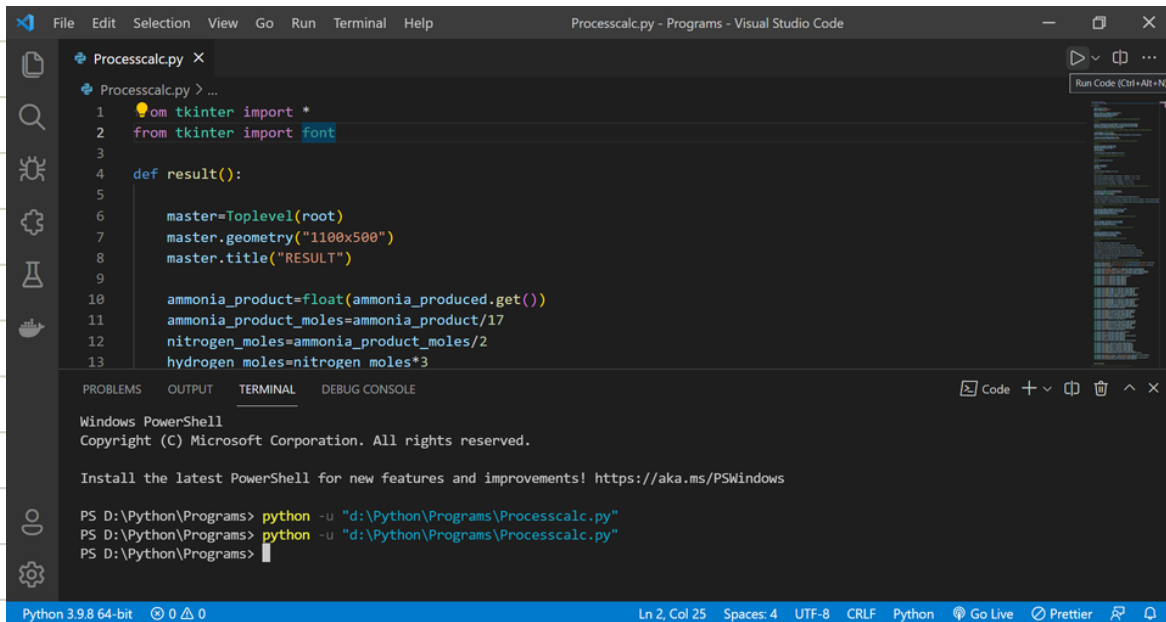
Windows PowerShell
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PS D:\Python\Programs> pip install tkinter

Feed Calculator Code

STEP-5 : Run the code.



The screenshot shows the Visual Studio Code editor with the file `Processcalc.py` open. The code defines a `result()` function that uses `tkinter` to create a window titled "RESULT" with dimensions 1100x500. It calculates ammonia product moles from a feed, then nitrogen moles, and finally hydrogen moles. The terminal at the bottom shows the command `python -u "d:\Python\Programs\Processcalc.py"` being executed in a PowerShell window.

```
1 from tkinter import *
2 from tkinter import font
3
4 def result():
5
6     master=Toplevel(root)
7     master.geometry("1100x500")
8     master.title("RESULT")
9
10    ammonia_product=float(ammonia_produced.get())
11    ammonia_product_moles=ammonia_product/17
12    nitrogen_moles=ammonia_product_moles/2
13    hydrogen_moles=nitrogen_moles*3
```

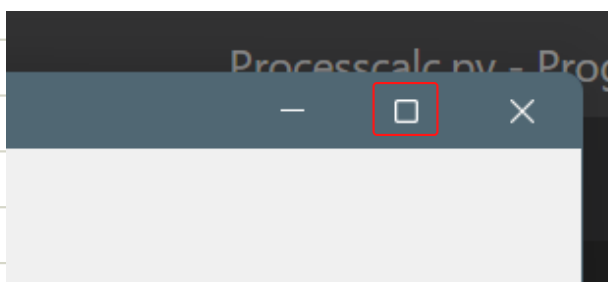
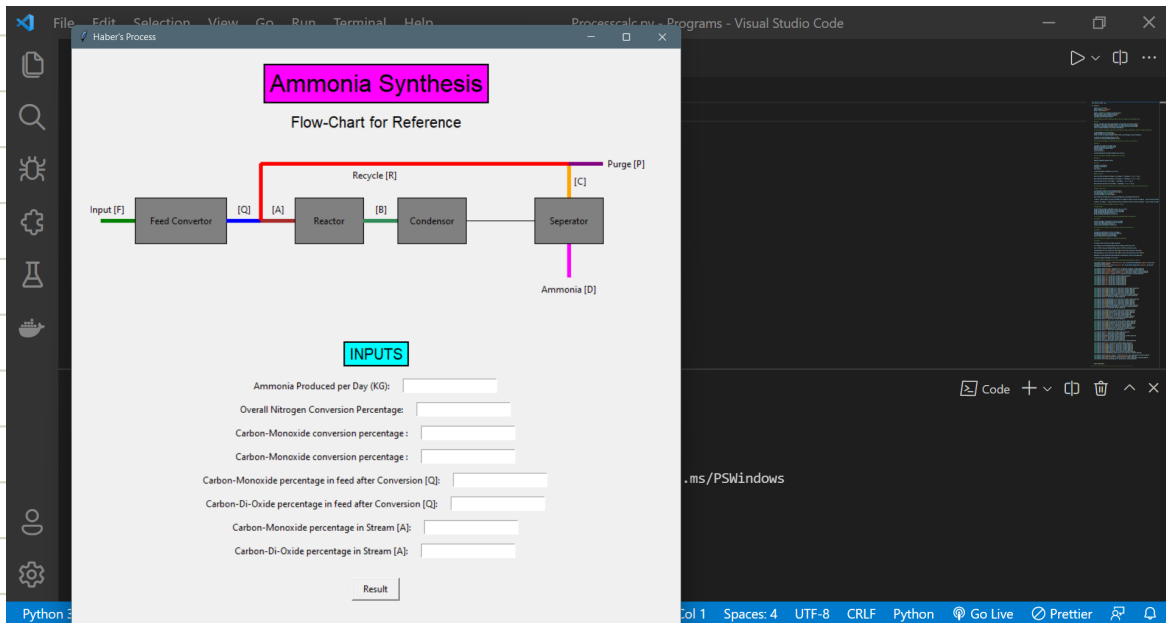
Terminal Output:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\Python\Programs> python -u "d:\Python\Programs\Processcalc.py"
PS D:\Python\Programs> python -u "d:\Python\Programs\Processcalc.py"
PS D:\Python\Programs>
```

An interactive screen appears.



Maximise the window for better visibility.

Feed Calculator Code

Enter the input values accordingly.

Ammonia Synthesis

Flow-Chart for Reference

Input [F]

Feed Converter

[Q]

[A]

Reactor

[B]

Condensor

Separator

Purge [P]

Ammonia [D]

Recycle [R]

INPUTS

Ammonia Produced per Day (KG): 1500

Overall Nitrogen Conversion Percentage: 80

Carbon-Monoxide conversion percentage: 90

Carbon-Monoxide conversion percentage: 90

Carbon-Monoxide percentage in feed after Conversion [Q]: 0.5

Carbon-Di-Oxide percentage in feed after Conversion [Q]: 0.5

Carbon-Monoxide percentage in Stream [A]: 2.5

Carbon-Di-Oxide percentage in Stream [A]: 2.5

Result



Click the "Result" Button to get results.

A new window with values will automatically be seen. And it can aslo be maximised.

Ammonia Synthesis

Flow-Chart for Reference

RESULT

Chemicals

	[F]	[Q]	[A]	[B]	[C]	[R]	[P]	[D]
Nitrogen	45.879	45.879	55.147	11.029	11.029	9.268	1.761	0
Hydrogen	196.027	137.636	165.441	33.088	33.088	27.805	5.283	0
Carbon-Monoxide	9.268	92.684	5.805	5.805	5.805	4.878	0.927	0
Carbon-Di-Oxide	9.268	92.684	5.805	5.805	5.805	4.878	0.927	0
Ammonia	0	0	0	88.23529411764706	0	0	0	88.23529411764706
Total	260.442	185.368	232.198	143.963	55.728	46.83	8.898	88.235

Methane produced: 16.683

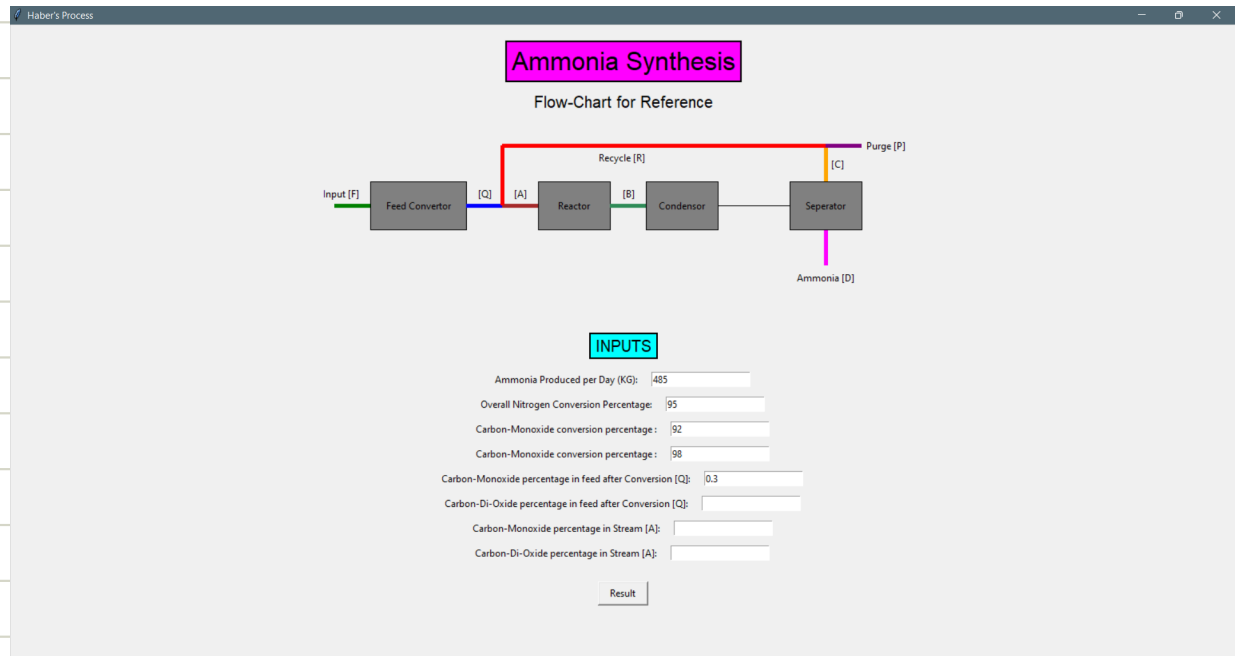
Water produced: 25.025

Streams

Result

Feed Calculator Code

Close the results window and try out with different values.



thank
you