In [27]:
```
%%writefile aaxx.py
print('hello')
def f():
    print('print this functions')
a=9
if __name__=='__main__':
    def x(a):
        print(a)
    print('something')
    x(8)
```

```
Overwriting aaxx.py
```

In [28]:
```
import aax
```

In [29]:
```
!python bh.py
```

```
hello
```

In [30]:
```
import aaxx
```

In [31]:
```
!python aaxx.py
x(8)
```

```
hello
something
8

---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last
t)
Cell In[31], line 2
      1 get_ipython().system('python aaxx.py')
----> 2 x(8)

NameError: name 'x' is not defined
```

In [33]:
```
aaxx.x(2)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last
t)
Cell In[33], line 1
----> 1 aaxx.x(2)

AttributeError: module 'aaxx' has no attribute 'x'
```

In [32]:
```
!python aaxx.py
```

```
hello
something
8
```

In [34]:
```
__name__
```

Out[34]:
```
'__main__'
```

In [35]:
```
dir(__name__)
```

Out[35]:
```
['__add__',
 '__class__',
 '__contains__',
 '__delattr__',
 '__dir__',
 '__doc__',
 '__eq__',
 '__format__',
 '__ge__',
 '__getattribute__',
 '__getitem__',
 '__getnewargs__',
 '__gt__',
 '__hash__',
 '__init__',
 '__init_subclass__',
 '__iter__',
 '__le__',
 '__len__',
 '__lt__',
 '__mod__',
 '__mul__',
 '__ne__',
 '__new__',
 '__reduce__',
 '__reduce_ex__',
 '__repr__',
 '__rmod__',
 '__rmul__',
 '__setattr__',
 '__sizeof__',
 '__str__',
 '__subclasshook__',
 'capitalize',
 'casefold',
 'center',
 'count',
 'encode',
 'endswith',
 'expandtabs',
 'find',
 'format',
 'format_map',
 'index',
 'isalnum',
 'isalpha',
 'isascii',
 'isdecimal',
 'isdigit',
 'isidentifier',
 'islower',
 'isnumeric',
 'isprintable',
 'isspace',
 'istitle',
 'isupper',
 'join',
 'ljust',
 'lower',
 'lstrip',
 'maketrans',
```

```
 'partition',
 'removeprefix',
 'removesuffix',
 'replace',
 'rfind',
 'rindex',
 'rjust',
 'rpartition',
 'rsplit',
 'rstrip',
 'split',
 'splitlines',
 'startswith',
 'strip',
 'swapcase',
 'title',
 'translate',
 'upper',
 'zfill']
```

In [40]:
```
import math
import numpy
import pandas
dir(pandas)
```

```
 'Int16Dtype',
 'Int32Dtype',
 'Int64Dtype',
 'Int8Dtype',
 'Interval',
 'IntervalDtype',
 'IntervalIndex',
 'MultiIndex',
 'NA',
 'NaT',
 'NamedAgg',
 'Period',
 'PeriodDtype',
 'PeriodIndex',
 'RangeIndex',
 'Series',
 'SparseDtype',
 'StringDtype',
 'Timedelta',
```

In [41]:
```
%%writefile h.py
a=9
__name__
```

```
Writing h.py
```

In [42]:
```
import h
h.__name__
```

Out[42]:
```
'h'
```

In [43]:
```
import aaxx
```

In [44]:
```
aaxx.__name__
```

Out[44]:
```
'aaxx'
```

In [55]:
```
%%writefile u.py
def f(x):
    return x
def g(x):
    return x*2
if __name__=='__main__':
    f(8)
    g(8)
    print(f(2))
```

```
Overwriting u.py
```

In [56]:
```
import u
```

In [57]:
```
u.f(7)
```

Out[57]:
```
7
```

In [58]:
```
u.g(7)
```

Out[58]:
```
14
```

In [59]:
```
!python u.py
```

```
2
```

In [60]:
```
pip install os
```

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

ERROR: Could not find a version that satisfies the requirement os (from v
ersions: none)
ERROR: No matching distribution found for os
```

In [61]:
```
pip install math
```

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

ERROR: Could not find a version that satisfies the requirement math (from
versions: none)
ERROR: No matching distribution found for math
```

In [62]:
```
pip install sys
```

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

ERROR: Could not find a version that satisfies the requirement sys (from
versions: none)
ERROR: No matching distribution found for sys
```

In [63]:
```
pip install random
```

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

ERROR: Could not find a version that satisfies the requirement random (fr
om versions: none)
ERROR: No matching distribution found for random
```

In [64]:
```
pip install numpy
```

```
Requirement already satisfied: numpy in c:\users\mahen\anaconda3\lib\site
-packages (1.23.5)
Note: you may need to restart the kernel to use updated packages.
```

os.listdir()

In [66]:
```
import os
```

```
import os

print("Files in the current directory:")
print(os.listdir("."))
```

In [74]:
```
with open('u.py') as file:
    x=file.read()
    print(x)
```

```
def f(x):
    return x
def g(x):
    return x*2
if __name__=='__main__':
    f(8)
    g(8)
    print(f(2))
```

In [75]:
```
with open("example.txt", "r") as file:
    for line in file:
        print(line.strip())  # Removes newline character
```

```
Hi Mahenra, welcome to the world of programming with python
```

In [79]:
```
with open("u.py", "r") as file:
    for line in file:
        print(line.strip())  # Removes newline character
```

```
def f(x):
return x
def g(x):
return x*2
if __name__=='__main__':
f(8)
g(8)
print(f(2))
```

In [80]:
```
with open("output.txt", "w") as file:
    file.write("This is a test.\n")
    file.write("Hello, World!\n")
```

In [81]:
```
with open('output.txt')as file:
    a=file.read()
    print(a)
```

```
This is a test.
Hello, World!
```

In [82]:
```
with open("output.txt", "a") as file:
    file.write("Appending new content.\n")
```

In [83]:
```
with open('output.txt')as file:
    a=file.read()
    print(a)
```

```
This is a test.
Hello, World!
Appending new content.
```

In [86]:
```
with open("output.txt", "r+") as file:
    print("Before Writing:", file.read())
    file.write("Updated content.\n")
    file.seek(0)  # Move the cursor to the start
    print("After Writing:", file.read())
```

```
Before Writing: This is a test.
Hello, World!
Appending new content.
Updated content.
Updated content.

After Writing: This is a test.
Hello, World!
Appending new content.
Updated content.
Updated content.
Updated content.
```

In [91]:
```
# Writing binary data
with open("image.png", "wb") as file:
    file.write(b'C:\Users\mahen\Desktop\Screenshot 2025-03-16 134320.png')

# Reading binary data
with open("image.png", "rb") as file:
    binary_content = file.read()
    print(binary_content)
```

```
b'C:\\Users\\mahen\\Desktop\\Screenshot 2025-03-16 134320.png'
```

In [ ]:
```

```