

## File Handling

### Python Program

Python Shell

```
x=3
print(x)
print(x+7)
```

=>

```
3
10
```

Restart

```
print(x)
```

=>

Error

```
+ → python3
Python 3.9.12 (main, Apr 5 2022, 01:53:17)
[Clang 12.0.0] :: Anaconda, Inc. on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> x = 3
>>> print(x)
3
>>> print(x + 7)
10
>>>
(base)
~/Downloads via @base took 6s
+ → python3
Python 3.9.12 (main, Apr 5 2022, 01:53:17)
[Clang 12.0.0] :: Anaconda, Inc. on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> print(x)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'x' is not defined
>>> |
```

Memory

RAM

↓

Temporary

Quit

=> Erased

Memory

Primary

RAM

Temporary/Volatile storage

Secondary

HDD/SSD

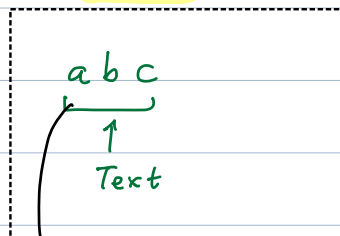
Persistent/Permanent storage

Hard Disk Drive (HDD)

Solid state Drive (SSD)

Text File

abc.txt



how??

SSD

KB → Byte  
MB  
GB ⇒ File size

measured in Bytes.

ASCII encoding

ASCII ⇒ 256 characters.

1 char takes 1 byte of storage.

Smallest unit of memory.

binary

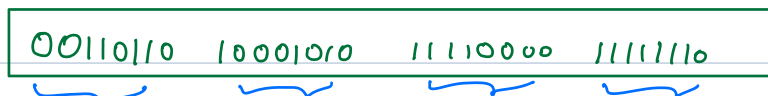
Computer can understand only 0/1.

1 byte = 8 bits

Q.Q) What is an .exe file?

Executable files

contains Byte array

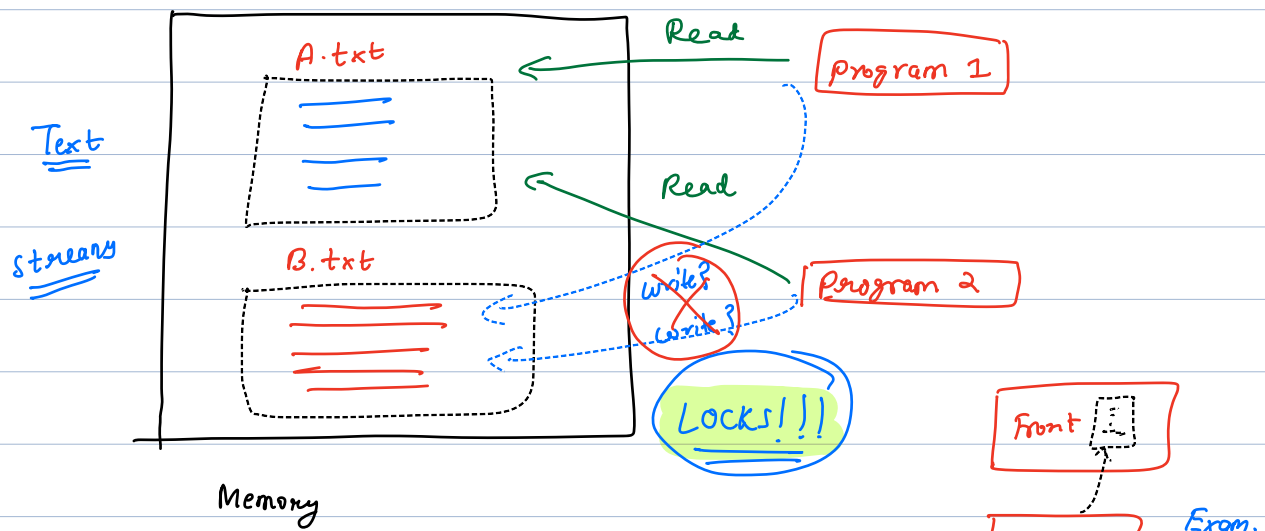


4 bytes

Diff. encodings

⇒ UTF-8, Unicode, ANSI, ASCII, ---

Rich Text Editor



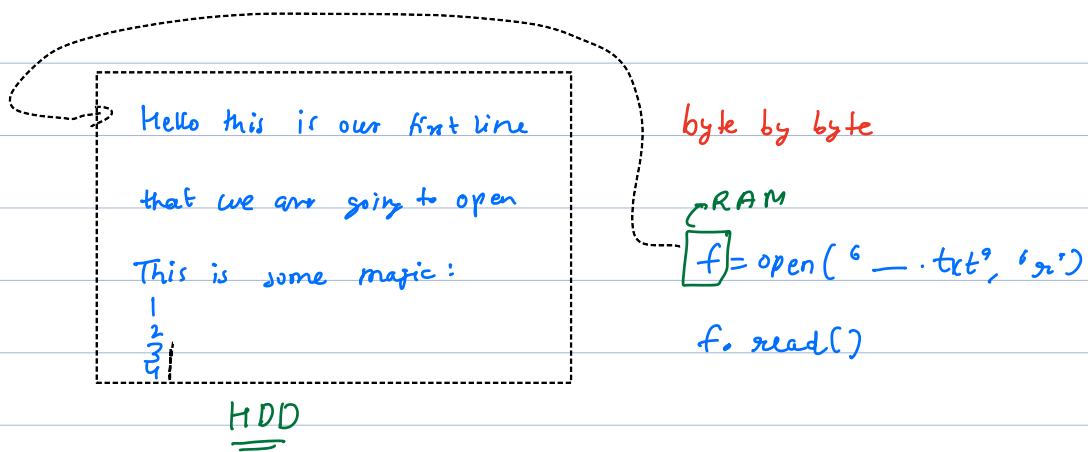
```
f = open('_.txt')
```

↓

TextIOWrapper

↓

I/O

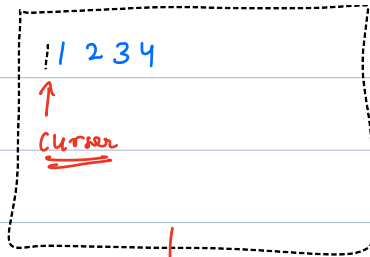


at mode

x.txt

does not truncate

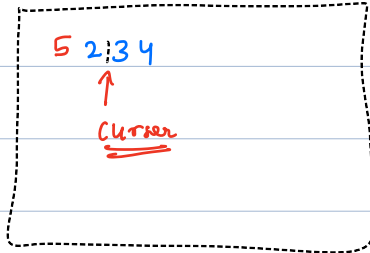
```
f = open('x.txt', 'a')
```



`f.write('5')`

`f.close()`

overrides the memory (in bytes)



`f=open('x.txt', 'r+')`

`f.read(2)` # read 2 bytes

↳ 52

`f.write('97')`

`f.close()`

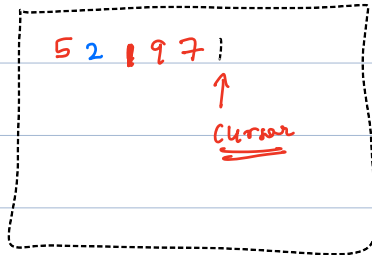
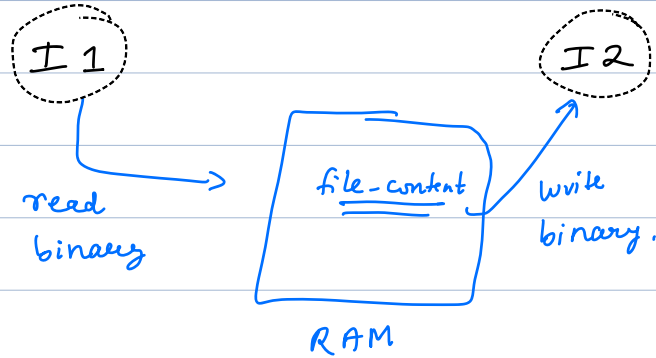


Image File

Copy



f.read()

