1) Python has several functions for creating, reading, updating, and deleting files.

Ans. Keyword used to open a file is open("filename" , "mode")

Modes are mainly classified into 4

1. "r" it is used for open file reading operation. By default . If the file is not existing it will show an error
2. "w" it is used for open a file for writing operation. If the file is not existing it will create a new file
3. "a" it is used to append a file . If the file is not existing it will create a file.
4. "x" it creates the specified file. It will show error if the file already exist

In addition there are 2 more.

1. "t" - Text - Default value. Text mode
2. "b" - Binary - Binary mode

Ex,

```
file = open(" demofile.txt" , "r" )

file = open(" demofile.txt" , "rt" )
```

- ✓ read() :- it is used to read contents of a file.

```
Ex :-   file = open("demofile.txt", "r")
        print(file.read())
```

By default the file in read mode. It will read the whole text . but you can specify how many characters you want to return.

```
Ex :-  file = open("demofile.txt", "r")
       print(file.read(5))
```

- ✓ readline() :- it is used to read only a line

```
ex :-  file=open("demofile.txt","r")
       print(file.readline())
```

if you call the function again it will print the next line in the file

- ✓ readlines() :- it reads until using end of the file readlines() and returns a list containing the lines. If the end of the file is not given it will print the whole lines.

```
Ex :-  file=open("demofile.txt","r")
       print(file.readlines())
```

- ✓ close() :- it is always good to close the files when you are done with it. Otherwise in some cases it will not show the changes made until the close function is called

ex :- file.cose()

- ✓ write() :- To write a file , it must to be opened in ‘w’ or ‘a’ or ‘x’ mode

  ex :- file=open("demofile.txt","w")
  print(file.write("now using write mode"))
  file.close()

- ✓ writelines() :- it writes a sequence of stings to a file the sequence ca be any iterable object producing strings ,typically a list of strings

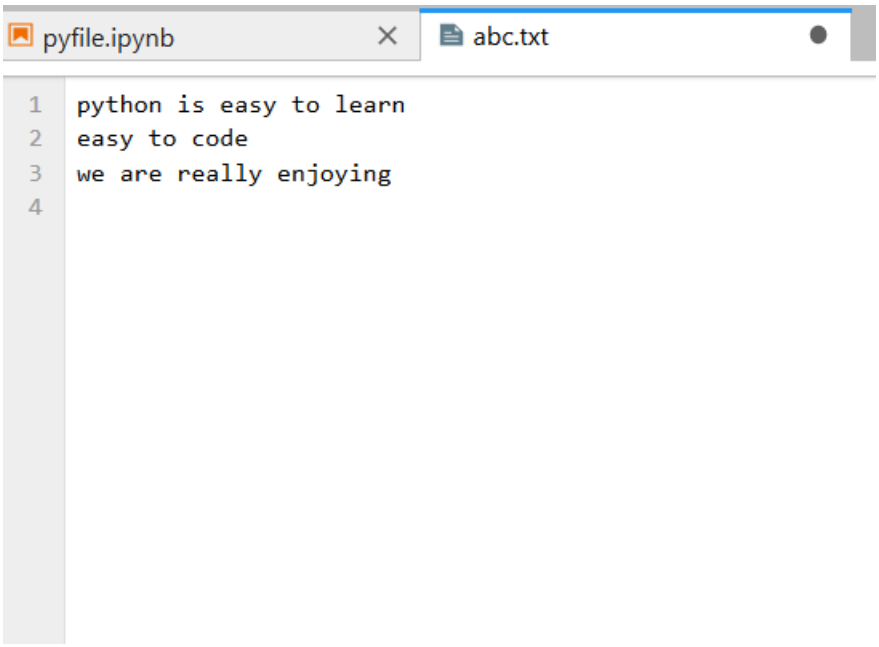
  ex :- file=open("demofile.txt","w")
  seq=['now using write mode\n','successfully edited']
  print(file.writelines(seq))

- ✓ seek() :- it used to change the current file cursor and it returns the current position

  ex :- file=open("abc.txt","r")
  file.seek(10)
  print(file.read(13))

2) Demonstrate various file operation functions
Ans)

inside the text file



[9]:
```
file=open("abc.txt","r")
print(file.read())
file.close()
```

```
python is easy to learn
easy to code
we are really enjoying
```

[10]:
```
file=open("abc.txt","r")
print(file.read(6))
file.close()
```

```
python
```

[14]:
```
file=open("abc.txt","r")
print(file.readline())
print(file.readline())
file.close()
```

```
python is easy to learn

easy to code
```

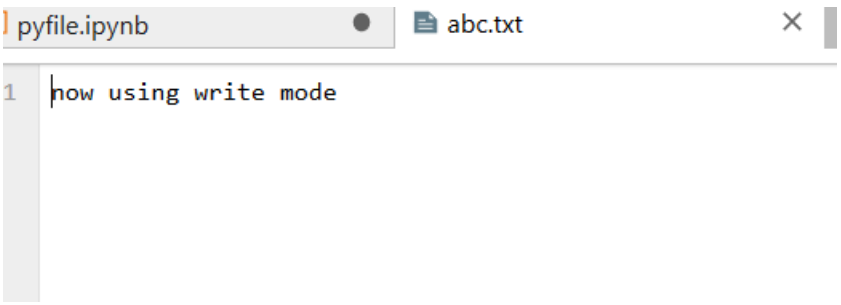
[15]:
```
file=open("abc.txt","r")
print(file.readlines())
file.close()
```

```
['python is easy to learn\n', 'easy to code\n', 'we are really enjoying']
```

[22]:
```
file=open("abc.txt","w")
print(file.write("now using write mode"))
file.close()
```

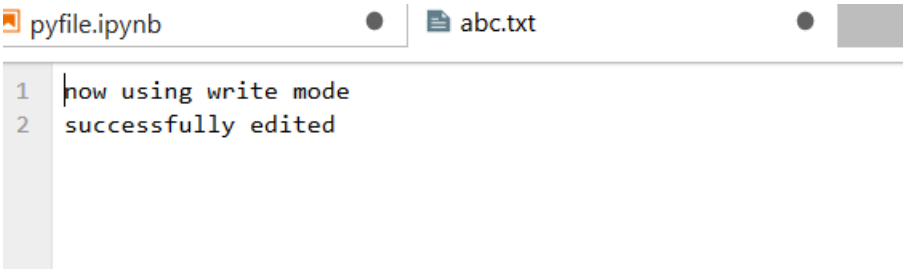
```
20
```

Text file after the execution of write mode



```
3]: file=open("abc.txt","w")
    seq=['now using write mode\n','successfully edited']
    print(file.writelines(seq))
    file.close()

    None

4]: file=open("abc.txt","r")
    file.seek(10)
    print(file.read(13))
    file.close()

    easy to learn

]:
```

Text file after executing writelines() function



3) Demonstrate reading and writing to a file incorporated with exception handling

Ans)

```
while True:
    file=input("enter the name of file you wanted to read")
    try :
        f=open(file)
    except :
        print("enter valid file")
        continue
    print(file.read())
    break
```