Chapter - 7 : File Processing

.readline( )

- This method reads a file and returns a single line with newline at the end.

Example

```
f=open("abc.txt","w")
f.write("This is 1st Line\n")
f.write("This is 2nd Line\n")
f.write("This is 3rd Line\n")
f.close()

f=open("abc.txt","r")
x=f.readline( )
print(x)
print("End")
f.close()
```

Output

```
This is 1st Line

End
```

#The space between two lines indicates the newline at the end.

.readlines([BufferSize])

- This method reads a file in a line by line sequence till the end of file(EOF) and returns a list containing the lines.
- The BufferSize if optional. If not given, reads the complete file. If given, whole lines upto BufferSize bytes are read.

Example

```
f=open("abc.txt","w")
f.write("This is 1st Line\n")
f.write("This is 2nd Line\n")
f.write("This is 3rd Line\n")
f.close()

f=open("abc.txt","r")
x=f.readline( )
print(x)
print("End")
f.close()
```

```
f=open("abc.txt","r")
x=f.readline(25 )
print(x)
print("End")
f.close()
```

Output

```
['This is 1st Line\n', 'This is 2nd Line\n', 'This is 3rd Line\n']
End

['This is 1st Line\n', 'This is 2nd Line\n']
End
```

.writelines(iterable)

- This method writes the items of a list to the file.
- Arguments are an iterable object (a tuple, a list, a string, or an iterator).
- Each item contained in the iterator to be a string.

Example

```
#Program to write a file
f=open("abc.txt","w")
f.writelines([ "This is 1st Line\n","This is 2nd Line\n","This is 3rd Line\n"])
f.close()

#Program to read a file
f=open("abc.txt","r")
x=f.readlines()
print(x)
f.close()

f=open("abc.txt","r")
x=f.read()
print(x)
print("End")
f.close()
```

Output

```
['This is 1st Line\n', 'This is 2nd Line\n', 'This is 3rd Line\n']
This is 1st Line
This is 2nd Line
This is 3rd Line

End
```

.tell ( )

This method tells the current position within the file

Example

```
#Write the content to file
f=open("abc.txt","w")
f.writelines([ "This is 1st Line\n","This is 2nd Line\n","This is 3rd Line\n"])
f.close()


#Read the content to file, and print the file position
f=open("abc.txt","r")

x=f.read(15)
print(x)
p1=f.tell()
print("Pos : ", p1)

x=f.read(15)
print(x)
p1=f.tell()
print("Pos : ", p1)

f.close()
```

Output

```
This is 1st Lin
Pos :  15

e
This is 2nd L
Pos :  31
```

.seek(offset, file_position)

- This method changes the current file position by the specified offset from beginning, end or current file position.
- The offset is specified in bytes.
- 0 indicates the beginning , 1 indicates the current and 2 indicates the end of file.

```
f.seek(0 , 0)    #moves the file pointer to the beginning of file
f.seek(0 , 2)    #moves the file pointer to the end of file
f.seek(10, 1)  #moves the file pointer 10 byte forward from the current position

f.seek(-10, 1)  #invalid syntax , negative byte position
```

Example

```
#Write the content to file
f=open("abc.txt","w")
f.writelines([ "This is 1st Line\n","This is 2nd Line\n","This is 3rd Line\n"])
f.close()
```

```
#Read the content to file, and print the file position
f=open("abc.txt","r")

x=f.read(15)
print(x)
p1=f.tell()
print("Pos : ", p1)

#This code will move the file pointer to beginning of file
f.seek(-10,0)
x=f.read(15)
print(x)
p1=f.tell()
print("Pos : ", p1)

f.close()
```

Output

```
This is 1st Lin
Pos :  15

This is 1st Lin
Pos :  15
```