Assignment No. 8

8) Discuss the following methods associated with file object a) read() b) readline() c) readlines() d) tell() e) seek() f) write()

File objects in python –

A file object allows us to use, access and manipulate all the user accessible files. one can read and write any such files.

When a file operation fails for an I/O related reason, the exception IO Error is raised.

This includes situation where the operation is not defined for some reason like seek() on device or writing a file opened for reading.

a) read():-

Reads the file content.

Syntax:- file_object.read(size)

1) The size represents the number of bytes to read from a file. It returns file content in string object.
2) The size is not specified it reads all the content from a file.

Source code:-

```
with open (r'E:\pynative\files\test.txt', 'r') as fp:
    print (fp.read (14))
    print (fp.read())
```

output:

My first line

My second line

My third line.

b) readline()

1) Read one line from a file at a time. It returns the line in string format.

2) If the size is given it reads the number of bytes from a file.

Syntax:-

file_object.readline(size)

source code:-

```
with open(r'E:\Pynative\Files\test.txt','r') as fp:
    print(fp.readline())
    print(fp.readline())
```

output:-

My first line

My second line.

c) readlines():-

1) Read all lines from a file and return them in the form of a list object.

2) If the size hint argument is present instead of the entire file, whole lines totaling approximately sizehint bytes are read.

Source code:-

```
with open (r' E:\pynative\files\test .txt ', 'r') as fp:
    print (fp.readlines())
```

output:-

['My first line\n', 'My second line\n', 'My Third line']

d) seek() and tell() method:-

The Seek() function sets the position of file pointer and tell() function returns the current pointer of file pointer.

source code:-

```
f= open ("demofile. txt", "r")
f. seek(4)
print(f. readline ())
```

output:-

```
C:\users\My Name>python demo. file-seek. py
o! Welcome to demofile. txt.
```

Source code:-

```
f = open ("demofile. txt", "r")
print (f. readline ())
print (f. tell())
```

output:-

```
C:/Users/MyName>python demo.file_tell2.py
Hello! welcome to demofile.txt.
32
```

f) write():-

writes the specified string to the file.

Source code-

```
f= open("demofile2.txt", "a")
f.write("see you soon!")
f.close()
f= open("demofile2.txt", "r")
print(f.read())
```

Output:-

```
C:\Users\MyName>python demo.file_write.py
Hello! welcome to demofile2.txt.
This file is for testing purposes.
Goodluck! see you soon!
```