File Access

You can use Python to read and write files to your hard drive or portable storage such as a USB drive.

To read a file you must create what is called a File Handler that will refer to the open file. You create the File Handler using the open command.

The first argument is the name of the file you want to open, the second argument is the mode in which it is opened.

This can be one of the following.

“r” read only

“r+” read and write

“w” write

“a” append.

If you open an existing file with the “w” mode it will overwrite the file. Use the “a” mode to add to the existing file.

f = open(“c:\temp\example.txt”,”r”)

Output the entire file

f.read()

Output the next line from the file and move the pointer to the next line.

f.readline()

You can use a for loop to move through the file line by line

```
for line in f:
        print line
```

To write or append to a file you also create a File Handler

```
f = open("c:\temp\example2.txt","w")
f.write("This is a line of text")
f.close()
```

You need to call f.close() to save and close the file

You can also save objects such as lists, tuples and dictionaries to a file.

You will need to convert the object to a string format.

You can use the json module to do this.

```
import json

f  = open("c:\temp\example3.txt,"w")

x = {}
x["name"] = "Mike Jones"
x["age"] = "33"
x["gender"] = "Male"

write the dictionary to the File Handle f after converting to json
j = json.dump(x,f)
f.close()
```

You can convert back a saved dictionary form a file

```
f = open("c:\temp\example3.txt","r+")
x = json.load(f)
print x["age"]
33
```