**File IO**

**Creating txt files.**

F = open(“my\_first\_file.txt”, “w”) the f is the object to hold file, the ‘w’ means write to file.

f.write(“foo”) - allows you to write then close it: f.close().

This is in the folder of the notebook.

To read it is the opposite:

F = open(“my\_first\_file.txt”, “r”)

Read lines from the file:

line = f.readline()

print(line)

Using a loop and list to iterate a tab delimited file:

#use loop and list to iterate into the file. Create tab delimited. \t separates items with tab, each entry in litst is new line

#the %s\n symbol iterates a line break on each lis item. Need to understand the %s thing at some point!

for animals in ["Animal\tFood", "Sloth\tLeaves", "Chicken\tCorn", "Dragon\tPeople"]:

f.write("%s\n" % animals)

The use the f.readlines() and print. Can also use a loop to read it per line like the file:

for l in lines:

print(l)

Can use rstrip to remove training white space (but can supply other characters too):

for l in lines:

print(l.rstrip())

Can also combine in one step with the open:

with open("animals.txt", "r") as infile: #infile is just a list name, and can be anything, it's not a function

for line in infile:

print(line.rstrip())

If we want to read/open and make changes in process., we can use the ‘os’ module.

We will read tab delinmited text file in and out to a csv formatted file:

with open("animals.txt", "r") as infile:

with open("animals.csv", "w") as outfile:

for lines in infile:

outfile.write(",".join(line.split())) # python works from inner most brackets first. The split option splits on the \t

outfile.write(os.linesep) # useing linesep form OS to separate lines

check it again

See saved file for the rest, but we then used Pickle files which is a byte based conversion for quicker data processing. We then read them back in and did the same from a URL for ‘Alice in Wonderland’ text. It is formatted with all the line breaks etc., which you don’t notice if you check a single line, but to read more in you have to deal with these.