

We have already seen how to use the `read_csv` commands (in R and python/pandas) to read data from files into dataframes/tibbles. But sometimes we need to work directly with text files.

The basics

```
#with open("path","r") as f:  
#    (put logic to read file here)
```

This structure guarantees that the file will be properly closed when you're done.

Slurp up the whole file into a string.

```
with open("data/gettysburg.txt","r") as f:  
    data = f.read()  
len(data)  
  
lines = data.split('\n')  
for x in lines[:10]:  
    print(x)
```

Read the file line by line

```
with open("data/gettysburg.txt","r") as f:  
    for line in f:  
        print(line)
```

Read a line from the file

```
with open("data/gettysburg.txt","r") as f:  
    line = f.readline()  
    print(line)
```

Slurp the file into a list

```
with open("data/gettysburg.txt","r") as f:  
    line_list = f.readlines()
```

```
lowercase = [x.lower() for x in line_list]  
lowercase
```

Writing to a file

An entire string to the file. **This will overwrite what is in the file.**

```
with open("data/gettysburg_lower.txt","w") as f:  
    f.write('\n'.join(lowercase))
```

One line at a time. **This will overwrite what is in the file.**

```
with open("data/gettysburg_lower.txt", "w") as f:
    for x in lowercase:
        f.write(x+"\n")
```

Appending to a file

```
with open("data/gettysburg_lower.txt", "a") as f:
    f.write("This goes at the end\n")
```

Working with directories (folders)

```
import os
import shutil
#os.getcwd()
#os.chdir('/home/jet08013')
#os.getcwd()
#files = os.listdir('.')
#os.rename()
#shutil.copy()
```