

#Two different ways you can use to read from file one character at a time.

```
fin = open('file1.txt')
print (fin)
#harder solution for reading file and adding second columns
while True:
    ch = fin.read(1) #line.strip() #removes space between lines
    if not ch:
        break
    print (ch, end=', ')
print('\n')
fin.close()
```

```
def fio(filename):
    with open(filename, encoding='utf-8-sig') as fin:
        for line in fin:
            for ch in range(0, len(line)):
                print(line[ch], end=', ')
    fin.close()
```

#call function and pass the file name

```
fio('file1.txt')
```

For writing to a file you do the same steps and pass 'w' when you open the file.

```
fout = open('file_out.txt', 'w')
fout.write('data or message')
fout.close()
```