

## Input Output (IO) Solutions

1.

```
name = raw_input("Enter your name: ")
dir = raw_input("Enter a directory: ")
outfile = open(dir + 'name.txt', 'w')
outfile.write(name)
outfile.close()
```

2.

```
outfile = open(dir + 'name.txt', 'a')
day = raw_input("What day is it today? ")
outfile.write('\n' + day)
outfile.close()
```

3.

```
infile = open(dir + 'name.txt', 'r')
print infile.read()
infile.close()
```

4.

```
infile = open(raw_input("Enter a file location: "), 'r')
line = infile.readline()
while line.strip() != '':
    print line.strip()
    line = infile.readline()
infile.close()
```

5.

```
infile = open(raw_input("Enter a file location: "), 'r')
max_line = ''
for line in infile:
    if len(line.strip()) > len(max_line):
        max_line = line.strip()
print max_line
infile.close()
```

6.

```
t_array = [0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0]
x_array = [0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55]
outfile = open('C:\\data.txt', 'w')
outfile.write('%10s %10s' % ('time', 'position'))
for i in range(0, len(t_array) - 1):
    outfile.write('\n' + '%10.1f %10d' % (t_array[i], x_array[i]))
outfile.close()
data_array = load('C:\\data.txt', skiprows=1)
times = data_array[:, 0]
positions = data_array[:, 1]
plot(times, positions)
show()
```