Writing Information to a File

Open a text editor and create a python application. Name the file and use an extension of ".py". Be sure to save the file into the Desktop/PRNE/section05/ directory. Firstly, the application should open the file 'dev-01-info' for reading.

Answer

```
file = open('dev-01-info', 'r')
```

Read in the information from the file, one line at a time. Strip off extra whitespace characters from each line.

Answer

```
name = file.readline().strip()
ip_address = file.readline().strip()
os_type = file.readline().strip()
username = file.readline().strip()
password = file.readline().strip()
```

Step 3

Write out the device information that has been read in, using the print and string formatting capabilities of Python. Print the information as a table of devices (although there will only be one device), with columns for the fields of name, IP address, OS type, username, and password.

Note

Python text formatting information can be found in the Job Aid section of the lab.

Answer

```
print '--- Device info nicely formatted --------------------------------'
print 'Name     IP addr          OS       Username  Password'
print '-----    --------------- -----     --------  --------'
print '{0:8} {1:15} {2:8} {3:10} {4:10}'.format(name, ip_address, os_type,
                                                username, password)
print '----------------------------------------------------------------'
```

Step 4

Create a string containing all the device information that is separated by commas, and write the information to a file.

Answer

```
# Create comma-separated list of device information attributes
device_info = name                           # start with device name
device_info = device_info + ',' + ip_address  # add a comma and IP address
device_info = device_info + ',' + os_type     # add a comma and os-type
device_info = device_info + ',' + username     # add a comma and username
device_info = device_info + ',' + password     # add a comma and password

# Write device information line to file
print '--- Writing device information to file ---------------------------'
outfile = open('dev-info-out','w')   # open the output file
outfile.write(device_info)           # write the line of device information
outfile.write('\n')                  # with 'write' we must add ending newli
outfile.close()                      # close file when writing is complete
```

Step 5

Read in the device information from the file, and print it out.

Answer

```
# Read in the information we just wrote
infile = open('dev-info-out','r')          # open the new one-line file
device_info = infile.readline().strip()    # read the line from the file
infile.close()                             # close the file

# Print out the information we read, from the file we just wrote
print ''
print '--- Device info read from file we wrote --------------------------'
print 'Device Info: ', device_info
print '-----------------------------------------------------------------'
print ''
```

```
$ cd Desktop\PRNE\section05
$ python read-write.py
--- Device info nicely formatted -----------------------------------
Name      IP addr          OS       Username   Password
-----     ---------------  -----    --------   --------
ios-01    10.30.30.1       ios      cisco      cisco
--------------------------------------------------------------------


--- Writing device information to file ---------------------------

--- Device info read from file we wrote --------------------------
Device Info:  ios-01,10.30.30.1,ios,cisco,cisco
--------------------------------------------------------------------

$
```