Unit 4 Career Preparation: Technical Assessment

Problem 1

Write a script that:

- Reads the file `problem1.txt`.
- Adds each line to a new list.
- Prints the new list.

In [3]:
```
import os
file_name = "/voc/data/problem1.txt"
with open(file_name, 'r') as f:
    for line in f.readlines():
        print(line)
```

```
item1

item2

item3

item4

item5
```

Problem 2

Write a script that:

- Reads the file `problem2.txt`.
- Counts how many times 192.168.1.1 appears in the file.
- Prints the result.

In [8]:
```
import os
file_name = "/voc/public/problem2.txt"
with open(file_name, "r") as f:
    lines = []
    for line in f:
        line = line.strip()
        lines.append(line)
    counter = 0
    for IP in lines:
        if IP == "192.168.1.1":
                counter +=1
print(counter)
```

```
5
```

Problem 3

Write a script using a function (`dedupe`) that:

- Takes a list `l = [1,5,7,2,4,3,5,1,6,2,6]` .
- Returns a new list that contains all of the elements from the first list, excluding duplicates.

In [25]:
```
def dedupe(lst):
    new_list = []
    for i in lst:
        if i not in new_list:
            new_list.append(i)

    return new_list

l = [1,5,7,2,4,3,5,1,6,2,6]

print(dedupe(l))
```

```
[1, 5, 7, 2, 4, 3, 6]
```

Problem 4

Write a program (using a function) that: Asks the user for a long string containing multiple words. Prints back the same string, except with the words in reverse order.

For example, if the user types the string: 'My name is robert', it will print 'robert is name My'.

In [2]:
```
def reverse_word(string):
    return ' '.join(string.split(' ')[::-1])
print(reverse_word(input("Please enter a string with multiple words:")))
```

```
 Nii is name My
```

Problem 5

Write a script that:

- Opens the file `problem5.txt`.
- Counts each port and puts the results in a dictionary.

In [12]:
```
import os

with open("/voc/public/problem5.txt") as f:

    lines = []
    for line in f:
        line = line.strip()
        lines.append(line)

    Dict_1 = {}
    for port in lines:
        if port not in Dict_1:
            Dict_1[port] = 1
        else:
            Dict_1[port] +=1
    print(Dict_1)
```

```
{'80': 7, '443': 3, '22': 5, '21': 2, '25': 3, '389': 1, '3389': 1, '445': 3, '': 1}
```

In [ ]:
```

```