

**Lab Assignment 10****Lab Grading Policy: Attendance 40%, Score 60%**

In case you have difficulty in finishing the exercises on time, you should upload them by **Thursday noon** with a penalty of 20% on your score. No late submission is permitted after that. We will in general post the reference solutions **by Friday**.

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**Exercise 1 (30%):** Please use the `istream_iterator` to read in string from the user and place in a vector. Please output words in a separate line with an ending '!'. Please take all the words and put them into a list. Then output the list into the standard output, and also a file named `reverse.txt`

Below is a sample output:

```
Enter a few words: The lab problem uses three types of iterators!
Output the words in a separate line with an ending !:
The!
lab!
problem!
uses!
three!
types!
of!
iterators!!
reversing text to a list container:
iterators! of types three uses problem lab The
list container writing to file: reverse.txt
```

```
reverse.txt
1  iterators! of types three uses problem lab The
```

**Exercise 2 (30%):** Write a program that (a) read a sequence of words from the standard input using `istream_iterator`. Keep all words in a STL container (b) for the words with a leading character 'g' or 'o' write the words into a file (`go.txt`) using an `ostream_iterator`. Each word should be in its own line and only appear once in output file. You should maintain the input order.

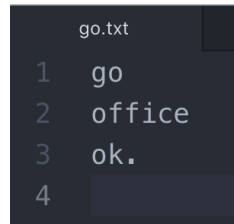
Please use the `copy_if` algorithm together with a lambda expression to filter out the 'g' and 'o' alphabets of the input strings.

Below is a sample example:

```
| I will go to the office today and will not go to the office
| tomorrow. Of course it is ok.
```

Please input a sequence of words:

I will go to the office today and will not go to the office tomorrow. Of course it is ok.  
The words with a leading character 'g' and 'o' are now written in a file.



```
go.txt
1 go
2 office
3 ok.
4
```