ECS769P: Advanced OOP
Lab 8: Associative Containers

You must use the Standard Library associative containers to solve these problems.

Exercise 1: Translator (Core)

Write a program that takes user text input, and outputs a 'translation' with specific words replaced, based on the table below.

Word	Translation
brb	be right back
k	okay
y	why
r	are
u	you
thx	thanks
l8r	later

Exercise 2: Text Analysis (Challenge)

Starting with the example from the lectures, write a program which stores user text input word by word:

- It should ignore specific **stop words** (not store them).
- On a *stop* command, the user should be able to add multiple new stop words, then return to accepting normal input.
- On an *end* command, the program should exit. Before it does, it should display the current stop words, the stored text (excluding stop words) and an ASCII histogram of word length for the stored text, e.g.

```
1 ===
2 =====
3 ========
4 ====
5 ===
6 ==
7
```

Exercise 3: Ordered vs unordered sets (Non-assessed)

Compare the efficiency of ordered and unordered sets **empirically**, i.e. by experimenting with code. Use each to construct a very large set of N integers and then remove all even values. Is there an N at which ordered sets are noticably slower? How does this vary with N?