

Bailey Miller

CST412

13 September 2023

Assignment 1

Once the assignment file is downloaded and unzipped, you'll want to run this command in the terminal while within the directory to compile the program

```
> g++ -o main main.cpp
```

This compiles the program using the g++ compiler. Once the program is compiled, use the command

```
> ./main
```

To run the program.

As the prompt says, you can type ! to view the sample file, or you can type any file name in. I also have some of my own test ciphers, stored in my-secret1.txt and my-secret2.txt. The output of the most recent run will be stored in output.txt, and the contents of this file will be overwritten each time the program is run.

I used a Trie data structure to store the contents of the dictionary file, the trie data structure is a good choice for storing this data as we're dealing with a lot of short strings that are going to have common prefixes. The definition of Trie is from here:

<https://www.geeksforgeeks.org/trie-insert-and-search/>