

CPP Problem Design

Subject: Set Exercise

Contributor: 謝宜杭, 謝公耀, 廖宣瑋

Main testing concept: STL

Basics

- ☒ C++ BASICS
- ☐ FLOW OF CONTROL
- ☐ FUNCTION BASICS
- ☐ PARAMETERS AND OVERLOADING
- ☐ ARRAYS
- ☐ STRUCTURES AND CLASSES
- ☐ CONSTRUCTORS AND OTHER TOOLS
- ☐ OPERATOR OVERLOADING, FRIENDS, AND REFERENCES
- ☐ STRINGS
- ☐ POINTERS AND DYNAMIC ARRAYS

Functions

- ☐ SEPARATE COMPILATION AND NAMESPACES
- ☐ STREAMS AND FILE I/O
- ☐ RECURSION
- ☐ INHERITANCE
- ☐ POLYMORPHISM AND VIRTUAL FUNCTIONS
- ☐ TEMPLATES
- ☐ LINKED DATA STRUCTURES
- ☐ EXCEPTION HANDLING
- ☒ STANDARD TEMPLATE LIBRARY
- ☐ PATTERNS AND UML

Description:

Consider a text file of names, with one name per line, that has been compiled from several different sources. A sample is shown in the following:

Brooke Trout

Dinah Soars

Jed Dye

Brooke Trout

Jed Dye

Paige Turner

There are duplicate names in the file. We would like to generate an invitation list but do not want to send multiple invitations to the same person. Write a program that eliminates the duplicate names by using the set template class. Read each name from the file (name.txt), add it to the set, and then output all names in the set to generate the invitation list without duplicates.

Input:

Output:

Output on console.

Sample Input / Output :

Sample Input	Sample Output
name.txt	sample.out

- ☒ Easy, Only basic programming syntax and structure are required.
- ☐ Medium, Multiple programming grammars and structures are required.
- ☐ Hard, Need to use multiple program structures or more complex data types.

Expected solving time:

10 minutes

Other notes:

1. 必須使用std::set
2. 輸出至console即可

