**CPP Problem Design Example**

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| **Subject:** **Find the largest and smallest** |
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| **Main testing concept: 數字大小比較**   |  |  | | --- | --- | | **Basics** | **Functions** | | ■ 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 | □ 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:**  Find the largest and smallest of four integers entered by the user.  **Input:**  ﻿Enter four integers separated by blanks.  The input is unlimited input until EOF is read.  **Output:**  Output the largest and smallest, and follow the sample format.    **Sample Input / Output：**   |  |  | | --- | --- | | Sample Input | Sample Output | | 21 43 10 35 | Largest: 43  Smallest: 10 | | -451 0 45641 2147483646 | Largest: 2147483646  Smallest: -451 | | -214783646 -214783646 9456123 95124446 | Largest: 95124446  Smallest: -214783646 | |
| **■ Eazy,Only basic programming syntax and structure are required.**  **□ Medium,Multiple programming grammars and structures are required.**  **□ Hard,Need to use multiple program structures or complex data types.** |
| **Expected solving time:**  10 minutes |
| **Other notes:** |