CS 003 - FUNDAMENTALS OF COMPUTER SCIENCE II (C++)

Lab4

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INSTRUCTOR : JI LEE

Problem 1.

◆ Fill array A with <u>10 distinct integers from 0 to 99</u>. Fill array B using A as follows. <u>Do not use sorting algorithm</u>.

```
A :   34 21 90 46 45 91 18 79 64 99
B :   99 90 64 45 21 18 34 46 79 91
```

	0	1	2	3	4	5	6	7	8	9
A	34	21	90	46	45	91	18	79	64	99

B	99	90	64	45	21	18	34	46	79	91

the largest number in A   the third largest number in A   ......   the fourth largest number in A   the second largest number in A

Problem 2.

◆ Write a C++ program to find and print all common elements in three sorted arrays of integers.

```
int A[] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11};
int B[] = { 3, 6, 10, 11, 13, 15, 16, 17 };
int C[] = { 1, 2, 3, 5, 6, 11, 15 };
```

```
< Original arrays >
----------------------
A: 1 2 3 4 5 6 7 8 9 10 11
B: 3 6 10 11 13 15 16 17
C: 1 2 3 5 6 11 15

Common elements : 3 6 11
```

```
int A[] = { 10, 20, 30};
int B[] = { 10 };
int C[] = { 1, 4, 7, 10, 20, 30 };
```

```
< Original arrays >
----------------------
A: 10 20 30
B: 10
C: 1 4 7 10 20 30

Common elements : 10
```