

## Lab1 (Basic Exercise)

\*주의: program 내에 “이름, 학번, 프로그램 ID(ex. Lab1)”등 반드시 쓸 것.

### Lab1-1: Find Min Max

다음 데이터중에서 최소값(findMin)과 최대값(findmax)의 인덱스를 찾아 출력하시오

```
int data[] = {90, 40, 60, 10, 50, 80, 20, 70};    int size = 8;
```

⇒ 출력:    최소값 -> 10,    최대값 -> 90

((알고리즘 - 강의노트))

Ex) {find maximum of three numbers a,b,c}

Input a,b,c

large:= a

if b>large then large:= b

if c>large then large:= c

return large;

Ex) Find minimum of the three numbers a,b,c

**Lab1-2: File I/O**    다음 데이터 파일에서 한 line 씩 읽고 각 Line 의 단어개수를 출력하는 프로그램을 작성하시오

예) [Data File] 다음을 입력하고, 데이터 파일 이름을 “lab1.dat”로 저장한다.

A program that translates a high level language to a machine language is called a compiler. A compiler is thus a somewhat peculiar sort of program and its output is yet another program. To avoid confusion, the input program is usually called the source program or source code, and the translated version produced by the compiler is called

[출력] 실행했을 경우, 다음과 같은 결과를 출력한다. /\* 다음은 실행 결과임

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((Word Count 알고리즘 )) \* 참조

```
While (buffer is not empty)) {
```

```
    Print One Line;
```

```
    Check WordCount(Buffer, WC);
```

```
    - Print Count (WC)
```

```
WordCount(buffer, WC)
```

```
    //Initialize IN, OUT pointer
```

```
    int i = 0;      int state = OUT;  //
```

```
    while (buffer[i] != '\0') { //Until End of Line
```

```
        if (isalpha(buffer[i])) { if (state == OUT) {
```

```
            ++ wc;  state = IN; }
```

```
        else if (buffer[i] == ' ') state = OUT; //if end of word,,
```

```
        i++;
```

```
    }
```