

Introduction to Programming (2)

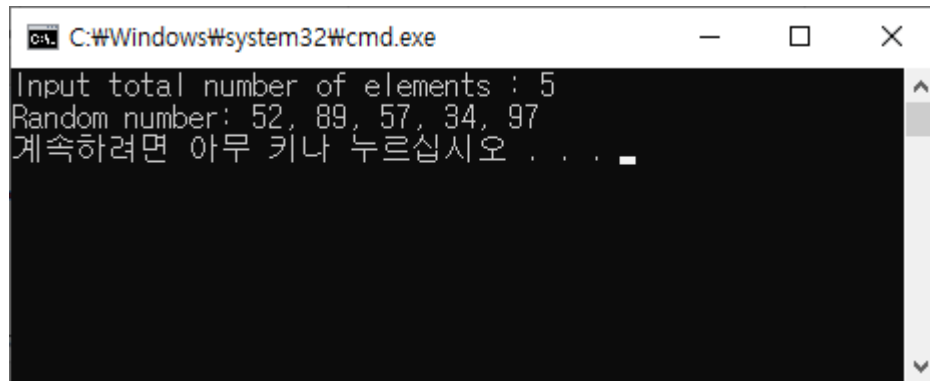
Pointers and Dynamic Objects - 2

Practice Class

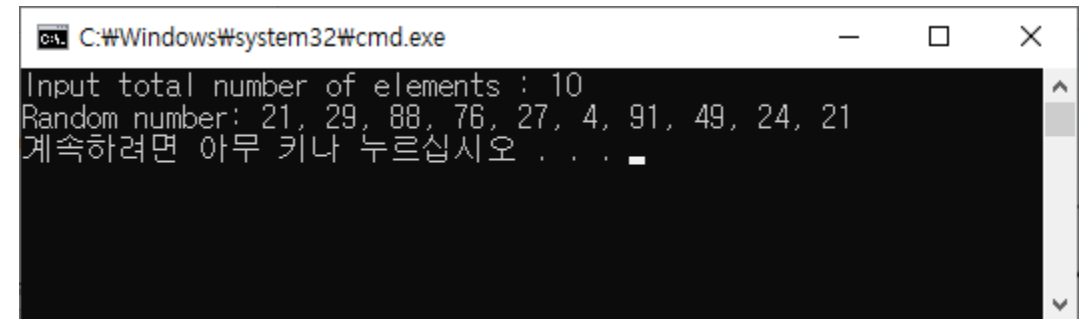
- Upload the report paper in e-class
 - The report paper has to include **1) the source code, 2) the snapshot, and 3) the description of the program**
 - File name is date_studentid (ex: 20220915_22xxxxx.docx)

Problem #1

- Write a program to
 - get a number of elements
 - generate random numbers and store in the array
 - show the random numbers
 - use **dynamic memory allocation**



```
C:\Windows\system32\cmd.exe
Input total number of elements : 5
Random number: 52, 89, 57, 34, 97
계속하려면 아무 키나 누르십시오 . . .
```



```
C:\Windows\system32\cmd.exe
Input total number of elements : 10
Random number: 21, 29, 88, 76, 27, 4, 91, 49, 24, 21
계속하려면 아무 키나 누르십시오 . . .
```

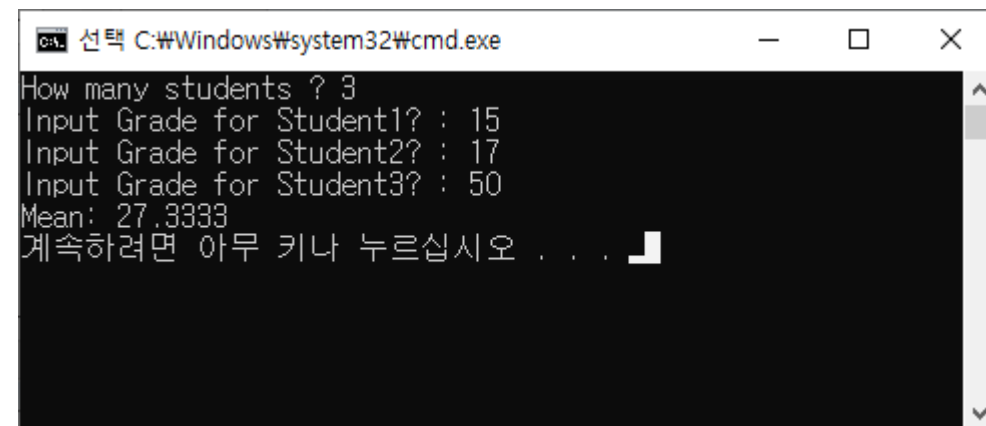
Problem #2

- Complete the printMean function
 - It has to show the average of the grades (ex: $27.33 = (15+17+50)/3$)

```
#include <iostream>

void printMean(int* grades, int n)
{
    //To be defined
}

void main() {
    int n;
    std::cout << "How many students ? ";
    std::cin >> n;
    int* grades = new int[n];
    for (int i = 0; i < n; i++) {
        int mark;
        std::cout << "Input Grade for Student" << (i + 1) << "? : ";
        std::cin >> mark;
        grades[i] = mark;
    }
    printMean(grades, n); // call a function with dynamic array
}
```



```
선택 C:\Windows\system32\cmd.exe
How many students ? 3
Input Grade for Student1? : 15
Input Grade for Student2? : 17
Input Grade for Student3? : 50
Mean: 27.3333
계속하려면 아무 키나 누르십시오 . . .
```