C Programming
Programming Homework #3

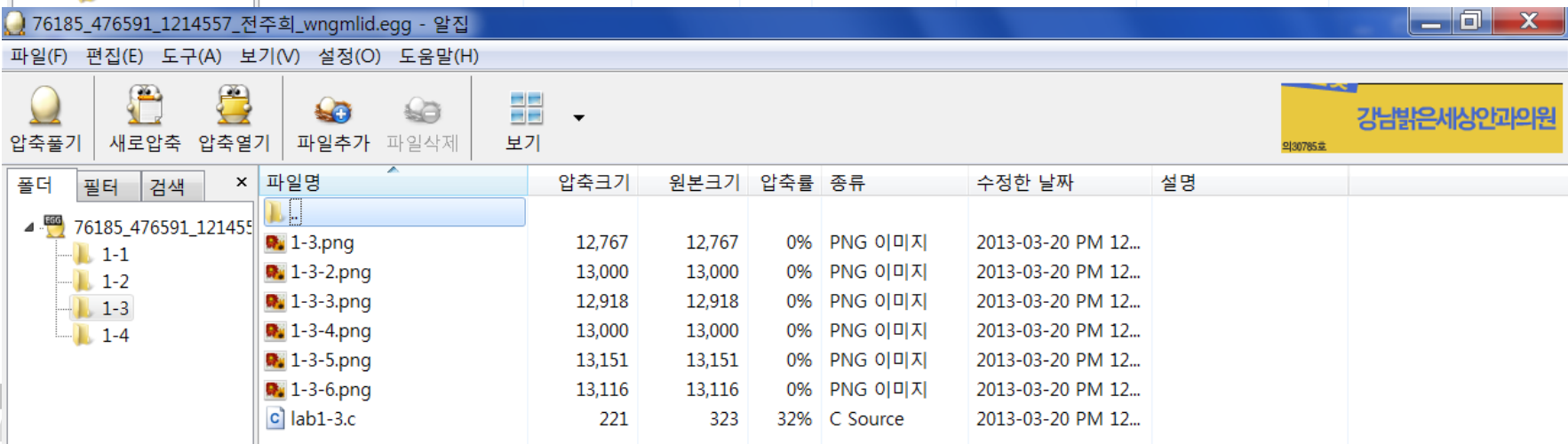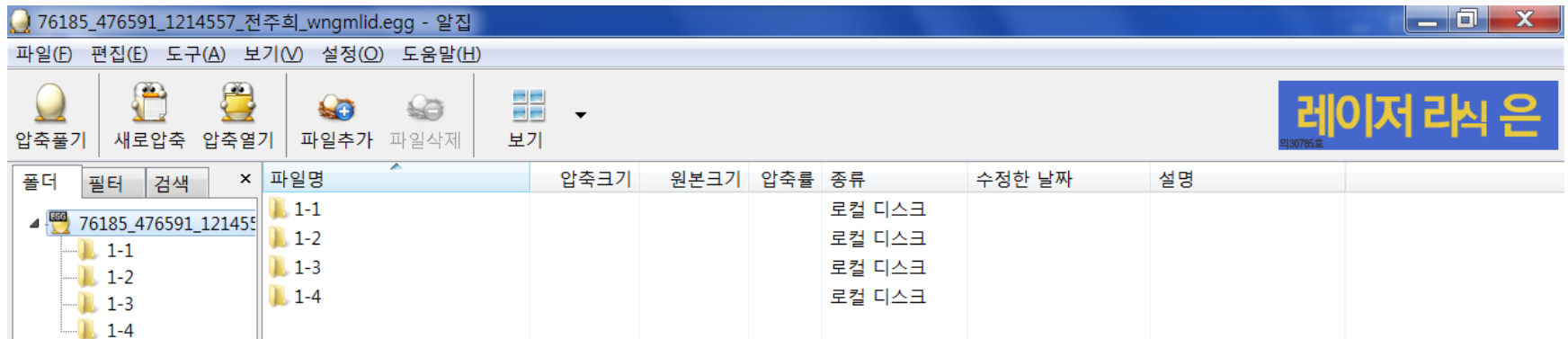School of Computing, Gachon Univ.

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Programming Homework

- Capture Output Screen & save
  - Alt (Fn)+PrintScrn or Open 그림판 and Ctrl+V
  - 캡처 도구
    - Windows로고키 + Shift키 + S
    - Windows로고키 + R, snippingtool (엔터)
- Save Source File
  - PHW3-1.cpp, PHW3-2.cpp, PHW3-3.cpp….
- Make Zip Folder
  - Output screen image
  - Source file (*.cpp)
- Submit the Zipped Folder to cyber campus

Make It Easy to See

- 1 Named Folder per Problem
  - source code and screen captures
- File name is "StudentID_이름.zip"

Homework 3

- Due date?
  - Next Monday midnight -5min (5/8, 23:55)
- How to submit?
  - Submit the Zipped Folder to CyberCampus
- What to submit?
  - Source file, screen capture result
- How to grade?
  - (Run without error) && (result is correct) = full points
  - If not, you will get partial points.

Homework 3-1 (7 points) ○○○

(Union of Sets) Use one-dimensional arrays to solve the following problem. Read in two sets of *integer* numbers, each having 10 numbers. After reading all values, <u>display</u> all the unique elements in the collection of both sets of numbers (합집합). Use the smallest possible array to solve this problem.

```
Enter first set: 1 2 3 4 5 6 7 8 9 10
Enter second set: 6 7 8 9 10 11 12 13 14 15
The Union set: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
```

<Example output>

○○○ Homework 3-2 (7 points) ○○○

(Intersection of Sets) Use one-dimensional arrays to solve the following problem. Read in two sets of *integer* numbers, each having 10 numbers. After reading all values, <u>display</u> all the unique elements common to both sets of numbers (교집합).

Enter first set: 1 2 3 4 5 6 7 8 9 10
Enter second set: 6 7 8 9 10 11 12 13 14 15
The Intersection set: 6 7 8 9 10

<Example output>

(Displaying Strings in Alternating Uppercase and Lowercase)
Write a program that inputs a line of text into char array s[100]. Output the line in <u>alternate</u> (번갈아서) uppercase letters and lowercase letters. Leave as the same in other than the alphabetical text.
Note) Don't use toupper and tolower functions.

Enter a line of text: WhoIsTheBestProgrammer?
Converted text is: WhOiStHeBeStPrOgRaMmEr?

<Example output>

Homework 3-4 (8 points)

(Strings Ending with "?") Write a computer program that can read in 6 different words, each of which can be up to 100 characters long. The program should only print out the words that end with the character "?".

Note) Don't use the "string.h" header.

```
Enter the 0-th conversation: What's your favorite food?
Enter the 1-th conversation: I love pizza, how about you?
Enter the 2-th conversation: I'm a big fan of chicken.
Enter the 3-th conversation: Oh, that's one of my favorites too.
Enter the 4-th conversation: Have you tried any new restaurants lately?
Enter the 5-th conversation: Not yet, but I've been wanting to. How about you?
The strings ending with "?" are:
What's your favorite food?
I love pizza, how about you?
Have you tried any new restaurants lately?
Not yet, but I've been wanting to. How about you?
```

<Example output>