SWE315 : C++

Homework 2

Solution:

1. Please send solution to: zbaharav@cogswell.edu
2. You know the drill by now: Simply hit reply, and no sippze ddirectories etc.. Just ascii-files or Word documents (or equivalent)

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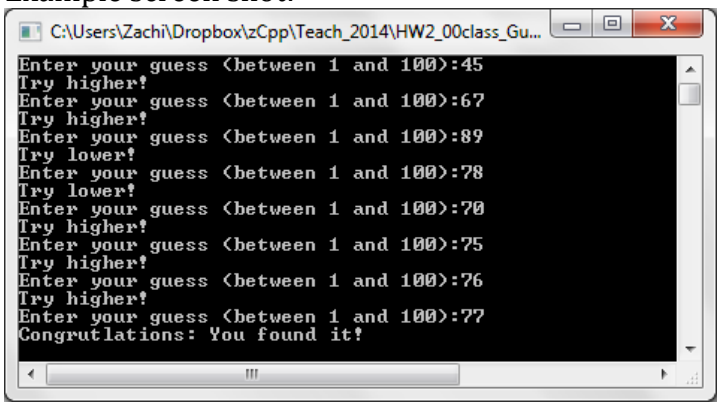
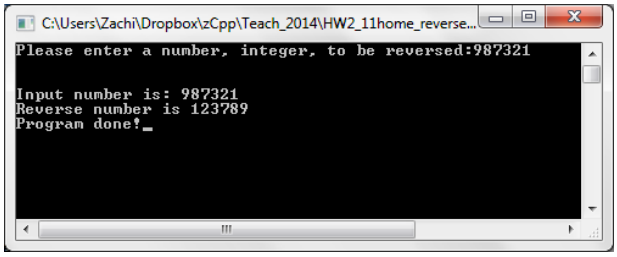
1. (taken almost 'verbatim' from Google educational material on C++)
   Write a program that implements guessing game. Our program generates a random number between 0 and 100. The player must guess the secret number. The program give hints like "It's too high" or "It's too low", until the number is reached.

   Hint:: Work on this in three steps (just a guide. You still need to submit only one program):
   a. Figure out how to create a random number in a given range.
   b. Create a main function that processes one guess from the user, and provides hints.
   c. Add a loop to allow multiple guesses.

   Example screen shot:



2. Write a program that reverses an integer input. Make sure to read the number as an integer, and print it as an integer. No need to transform to strings/characters/etc.



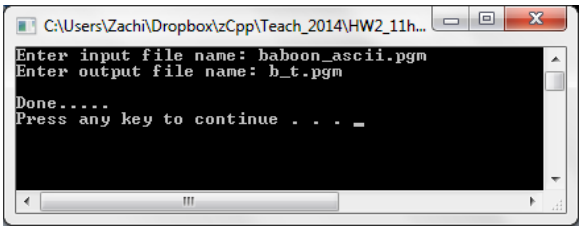
3. PGM file format:
    a. Write two programs that read a PGM file, and write it back with the following modification:
        i. Transform to Binary according to a user given Threshold.
        ii. Creates an image half the size (Assume nice numbers for the input image)

    Allow yourself plenty of room to make it easy !!
    For example, if you are using the Baboon image, assume you know:

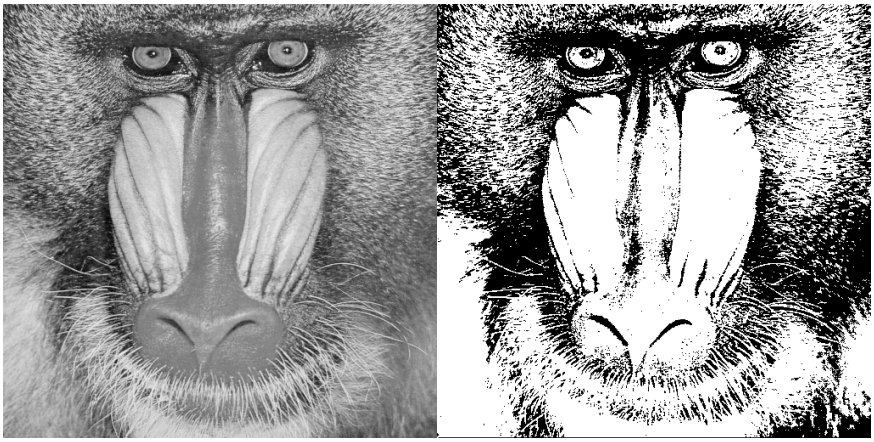
```
// Assume file header is like the following:
/*
P2
# comment line
512  512    <--- first number is cols, second is rows
255   <-- range of White
*/
```

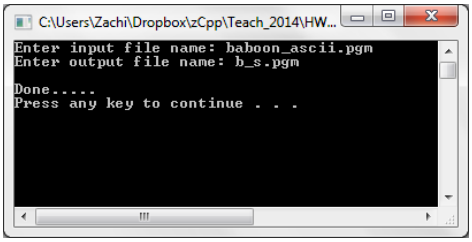
So the program should do:

```
// Get the P2 line

// Get the comment line

// Get the size of file

// Get the max gray level

// Get the values
```

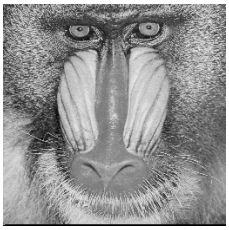


Threshold (with 127)
Left: Original. Right: Threshold.





And Half the size:



=== End of Homework 2 ====