# **CSC 1300 LAB 5 GOLD**

Fall 2024, Written by Kelsey Rainey, Last Updated Sept 27, 2024

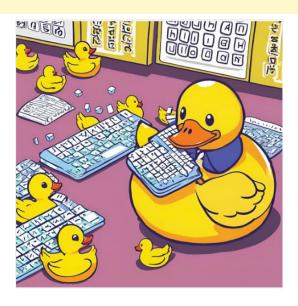
## **Learning Objectives**

- While/Do-While Loops
- For Loops
- Nested Loops
- Running totals
- Input Files

## **NO Paired Programming Option**

This is an <u>individual assignment</u>. As per the syllabus, you may still talk with other students about the assignment, **however**, you are not allowed to share more than a few lines of code with them.

#### Part 1: Wordle



You've *all* played Wordle before, right? No? NYT anyone? The premise is that you are trying to guess a random 5-letter word. You have six guesses. For each guess, it tells you if a letter is in the word but not the correct position, in the word and in the correct position, or not in the word at all.

<u>You must</u> use at least one of each: for loop, while loop, do-while loop. It is up to you to decide where to use each loop. **You much** verify all user input to make sure that it is an expected value.

Remember, THIS IS AN INDIVIDUAL ASSIGNMENT!

For this lab, you will:

- 1. Print the rules of the game
- 2. Use files to get a random word
  - a. Download the given words.txt into the same directory as your lab5.cpp
  - b. Include the file stream library #include<fstream>
  - c. Create an input file stream object ifstream fileObjName
  - d. Open the file fileObjName.open("filename.txt")
  - e. Verify the file is open if (!fileObjName.is\_open()) {
  - f. Create a random number between 1 and the max number of lines in the file (in the given file, it is 70)

- g. Use a for loop to iterate from 0 to the random number
- h. In the for loop, use getline to get the word at that line getline (fileObjName, wordToGuess)
- i. Close the file after the loop fileObjName.close()
- 3. Take in the users guess and verify that it is 5 letters. You may assume that they will not enter a word with repeating letters.
- 4. Compare the user's word to the actual word and print out a blank if the letter is not in the word, an underline with the letter if it's in the word but not in the correct position, and just the letter if it's in the correct position (refer to sample output). Repeat until the user gets the word right or until they have made 6 guesses.
- 5. Keep repeating steps 2-4 until the user decides to stop playing.
- 6. After, print the total games, the average number of guesses per game, and total wins.

#### Sample Outputs

User input is highlighted in <mark>yellow</mark> .
Sample Output 1
,
Rules: You have 6 guesses to guess a 5 letter word with no repeating letters. The word will have no repeating letters. For each guess, the word will be printed out again. If it is a blank (), the letter is not in the word If it is the letter with the underline (P), the letter is in the word just not in the correct position If it is just the letter ( P ), the letter is in the correct position GOOD LUCK
Guess 1: irate R AT E
Guess 2: sound
Guess 3: claspC A
Guess 4: black A C
Guess 5: slack A C
Guess 6: brace  R A C E  Too bad :( The word was trace
Would you like to play again? (y or n) y

uess 1: <mark>sound</mark> _S
uess 2: <mark>irate</mark> A A
uess 3: <mark>clasp</mark> L A S
uess 4: <mark>flash</mark> = L A S H ne word was: flash reat guessing :)
ould you like to play again? (y or n) <mark>y</mark>
uess 1: <mark>shout</mark> 5 H O U T ne word was: shout reat guessing :)
ould you like to play again? (y or n) <mark>y</mark>
uess 1: <mark>brown</mark> 3 O W N
uess 2: <mark>blown</mark> 3 L O W N 1e word was: blown reat guessing :)
ould you like to play again? (y or n) <mark>n</mark>
ne total games you played was 4 ne average guesses per game was 3.25 ne total times you won was 3
ample Output 2
·

, ,			
<u> </u>			1 11 1
<u>                                     </u>	<u> </u>	11111	1 11 1 1_
/\             / \	1 11 1 1 1/ 1	1 11 1 1 1	X
_         _   _     _	1111 11 11		, i ii i i i
/          _   /			
		· · · · · · · · · · · · · · · · · · ·	1 11 1
	1 11 1	1 11 1	1 11 1
	-! !! !	-! !! !	-1 11 1
'    ''		- 11	

```
'----'
 _____'
Rules:
You have 6 guesses to guess a 5 letter word with no repeating letters.
The word will have no repeating letters.
For each guess, the word will be printed out again.
If it is a blank (_____), the letter is not in the word
If it is the letter with the underline (__P__), the letter is in the word just not in the
correct position
If it is just the letter ( P ), the letter is in the correct position
GOOD LUCK
Guess 1: sound
Guess 2: stale
      ___T
  S
                    L
Guess 3: slate
  S
        L
                     т
                           E.
The word was: slate
Great guessing :)
Would you like to play again? (y or n) n
The total games you played was 1
The average guesses per game was 3
The total times you won was 1
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## **Part 2: Fill Out the Lab Report**

You will fill out this lab report for every lab and it is part of your grade. To get credit, you must upload a screenshot of the confirmation page to this lab assignment. Name your screenshot lab5ReportProof.

Lab Report Link: <a href="https://tntech.co1.qualtrics.com/jfe/form/SV">https://tntech.co1.qualtrics.com/jfe/form/SV</a> d6BGc6kzQdSvBmS

### What to Turn In

Create a zip file named **lusername\_lab5** containing the following .cpp files and upload it to ilearn. Replace labPartner1username with your TTU username. Example: <a href="mailto:acrockett43">acrockett43</a> lab5.zip

- lab5.cpp
- lab5ReportProof

Remember to download and check your .zip file to make sure that it includes your .cpp and lab report proof.