## Input/Output, Files, Command Line Arguments and Dynamic Memory

Write a C program that implements a Wordle-like game using file I/O and dynamic memory allocation.

### IMPORTANT NOTES

**Note 1: Four sample input files have been provided in the GitHub repository. Copy these into your build folder for testing.**

**Note 2: To get ANSI colors showing in CLion:**

1. Choose Help -> Edit Custom Properties
2. Add: run.processes.with.pty=false
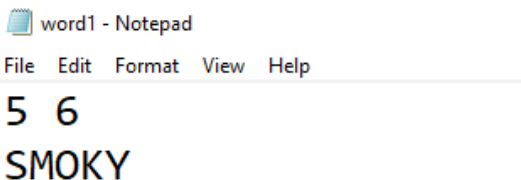3. Restart CLion.

### TASK REQUIREMENTS:

- Build a Wordle-like game that reads settings from input files
- Use ANSI colors to highlight correct letters (green) and misplaced letters (yellow)
- Dynamically allocate a 2D array based on word size and guess limit from input file
- Initialize the array with spaces (" ")
- Write game results to an output file specified via command line arguments
- Implement proper error handling for command line arguments and file operations

### GAME PLAY

1. Display initial game board showing word length and guess limit
2. Prompt for and validate guesses (correct length, letters only)
3. Update board with color-coded results
4. Repeat until correct guess or maximum attempts reached
5. Write final results to output file

**NOTE:** Your program should use spaces (" ") as a starting character, not underscores ("_")

### Input File Example:



```
word1 - Notepad
File  Edit  Format  View  Help
5  6
SMOKY
```

### Output File Examples:

**game-result1 - Notepad**
File  Edit  Format  View  Help

```
The solution was not found.
L E A S T
P O U N D
S O U N D
S T A T E
L A T E R
T O W E R
```

**game-result2 - Notepad**
File  Edit  Format  View  Help

```
The solution was found.
L E A S T
W O R D S
S H O C K
S M O K Y
_ _ _ _ _
_ _ _ _ _
```

## Command Line Argument Errors:

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe
Invalid number of command line arguments.
Process finished with exit code 1
```

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe one two three
Invalid number of command line arguments.
Process finished with exit code 1
```

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe one two three four
Invalid command line argument usage.
Process finished with exit code 1
```

## File Errors:

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe -i nonfile -o outfile
Cannot open nonfile for reading.
Process finished with exit code 1
```

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe -i word1.txt -o C:\nonfolder\out1.txt
Cannot open C:\nonfolder\out1.txt for writing.
Process finished with exit code 1
```

## Game Play Examples:

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe -i word1.txt -o game_result1.txt
Welcome to C-Wordle!!

Current game state:
- - - - -
- - - - -
- - - - -
- - - - -
- - - - -
- - - - -

Please enter a 5-letter word:LEAST

Current game state:
L E A S T
- - - - -
- - - - -
- - - - -
- - - - -
- - - - -

Please enter a 5-letter word:words

Current game state:
L E A S T
W O R D S
- - - - -
- - - - -
```

```
- - - - -
- - - - -

Please enter a 5-letter word:shock

Current game state:
L E A S T
W O R D S
S H O C K
- - - - -
- - - - -
- - - - -

Please enter a 5-letter word:smoky

Current game state:
L E A S T
W O R D S
S H O C K
S M O K Y
- - - - -
- - - - -

You WIN!!!
The game result was written to the game_result1.txt file.
Process finished with exit code 0
```

```
- - - - -
- - - - -

Please enter a 5-letter word:later

Current game state:
L E A S T
P O U N D
S O U N D
S T A T E
L A T E R
- - - - -

Please enter a 5-letter word:tower

Current game state:
L E A S T
P O U N D
S O U N D
S T A T E
L A T E R
T O W E R

You LOSE!!!
The game result was written to the game_result1.txt file.
Process finished with exit code 0
```

## Input Validation:

```
- - - - -

Please enter a 5-letter word:dog

Sorry, but you can only enter 5-letter words.

Please enter a 5-letter word:#$%^&

Sorry, but you can only enter 5-letter words.

Please enter a 5-letter word:blue2

Sorry, but you can only enter 5-letter words.

Please enter a 5-letter word:banana

Sorry, but you can only enter 5-letter words.

Please enter a 5-letter word:blade

Current game state:
B L A D E
- - - - -
- - - - -
- - - - -
- - - - -
- - - - -

Please enter a 5-letter word:
```

## Longer Word Example:

```
C:\PROG2007\ASSIGN5\cmake-build-debug\ASSIGN5.exe -o game_result2.txt -i word2.txt
Welcome to C-Wordle!!

Current game state:
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -
- - - - - -

Please enter a 6-letter word:strong

Current game state:
S T R O N G
- - - - - -
- - - - - -
```

## SUBMISSION INSTRUCTIONS

Submit via video recording demonstrating your working program as outlined in Brightspace.