Programming Project / C++ – Hangman Game – Word Guessing

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I. Task Description

Student 1 is responsible for game logic:
- Inputting a random word
- Checking player guesses
- Updating word display with correct letters
- Tracking number of incorrect attempts

Student 2 is responsible for player interaction:
- Reading and validating player input
- Showing current state of guessed word
- Drawing hangman figure based on lives
- Handling game restart and end conditions

II. Data Structures Used by the Team The following classes will be used:

`Word`: string actualWord, string guessedWord, vector<char> usedLetters
`Hangman`: int lives, int maxLives, Word word

III. Interacting with Executables

Application 1 will offer the following options (Game Logic):

- ./hangman_logic.exe choose_word
  → Picks a random word for the current game

- ./hangman_logic.exe check_guess <letter>
  → Checks a guessed letter and updates guessed word Application

2 will offer the following options (Player Interaction):

- ./hangman_ui.exe start
  → Starts a new game

- ./hangman_ui.exe guess <letter>
  → Sends a guess to the logic app

- ./hangman_ui.exe view_state
  → Displays the current word, lives left, and used letters

- ./hangman_ui.exe restart
  → Starts a new game after win/loss