

WORD SEARCH PUZZLE GAME

PF SEMESTER PROJECT

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IMPLEMENTATION DETAILS

Puzzle Display:

The puzzle grid (10x10) is displayed in a visually appealing, centered format for better readability.

File Handling:

puzzle.txt: Stores the grid for the word search.

word.txt: Contains the list of 10 words to be found in the puzzle.

The program reads these files using ifstream and validates the data before use.

Case Insensitivity:

Converts user guesses and word lists to uppercase to eliminate case-sensitivity issues.

Attempt Tracking:

Each word has a maximum of 3 attempts before the game ends.

Incorrect attempts are counted, and appropriate feedback is provided.

Game Control:

Users can type "EXIT" to end the game early.

After the game ends, players are given the option to retry or quit.

Hint Mechanism:

Displays the length of the remaining words as hints.

End Game Results:

Displays the total number of words found out of the total possible.

PROBLEM

1. Ensuring that the puzzle.txt and word.txt files are properly formatted and accessible.

SOLUTION

1. Added checks to ensure that the file is opened successfully and that data matches the expected format
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PROBLEM

2. Tracking incorrect guesses and ensuring the game ends when the maximum attempts are reached for any word.

SOLUTION

2. Maintained arrays for attempts and foundWords to ensure accurate tracking of each word's status

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PROBLEM

3. Allowing users to gracefully end the game or retry after a loss

SOLUTION

3. Added a retry mechanism with a clear prompt for user input..

KEY FEATURES

- Real-time feedback on correct and incorrect guesses.
- Hints provided to aid users in locating words.
- Ensures proper file loading

- Centered puzzle grid and clear instructions enhance the gaming experience.
- End-game results and retry options provide a polished user flow.

LEARNING OUTCOMES

- Serves as a simple yet engaging project for beginners to practice programming concepts.
- Encourages logical thinking and attention to detail in solving puzzles.
- Demonstrates the practical use of arrays, strings, file handling, and user-defined functions.

The background features a dark blue field with a series of concentric circles centered behind the text. Overlaid on these are several large, semi-transparent blue geometric shapes, including chevrons and zig-zags, which create a dynamic, layered effect.

**THANK
YOU**