

Description of the Strategy Deployed

My approach to solving the Hangman challenge is designed to be smart and strategic, focusing on letter frequency and word structure to improve guessing accuracy. Here's how it works:

1. Understanding the Word Pattern

- First, I clean up the input by removing spaces and identifying known letters.
- Then, I filter the dictionary to find words that match this structure, narrowing down possible answers.

2. Choosing the Best Letter to Guess

- I analyse the remaining words and count the frequency of each unused letter.
- The letter that appears most frequently among these words is my next guess, ensuring I avoid repeating previous choices.

3. Balancing Vowel and Consonant Guesses

- I check how many vowels are likely to appear based on word length.
- If vowels already make up more than 55% of the word, I focus on guessing consonants next.

4. Dealing with Hard-to-Match Words

- If no words in the dictionary match the given pattern, I try breaking the word into smaller parts like prefixes and suffixes.
- This helps find similarities with common word structures and improves guessing accuracy.

5. Fallback Strategy for Tough Cases

- If I still don't have a match, I default to guessing the most common unused letter in the entire dictionary.
- This ensures I still make an informed guess, even when word matches are scarce.

By combining dictionary filtering, frequency analysis, and intelligent adjustments, my strategy makes Hangman-solving far more effective than simply guessing letters at random.