

Hangman Algorithm:

Initialize the Game:

- Create a list of words to choose from.
- Choose a random word from the list as the word to guess.
- Create variables to keep track of the guessed word, guessed letters, and the number of incorrect attempts.
- Display an initial empty hangman figure.

Display the Game Introduction:

- Print a welcome message to the player and explain the rules of the game.
- Show the initial state of the word to guess with underscores representing missing letters.

Game Loop:

- Enter a loop that continues until one of the following conditions is met:
 - The player correctly guesses the word.
 - The player runs out of attempts (reaches a predefined maximum number of incorrect guesses).

Guess a Letter:

- Prompt the player to guess a letter.
- Validate the player's input:
 - Ensure it is a single letter.
 - Check if the letter has already been guessed.
 - Ensure it is a valid alphabetical character.

Check the Guess:

- If the guessed letter is in the word to guess:
 - Update the guessed word to reveal the correct guesses.
 - Check if the player has guessed the entire word correctly.
 - If the player wins, display a winning message and end the game.
- If the guessed letter is not in the word:
 - Add the letter to the list of guessed letters.
 - Decrease the number of attempts remaining.
 - Update the hangman figure display to reflect the number of incorrect guesses.

Game Over:

- After the game loop ends (either by winning or losing), display an appropriate message:
 - If the player wins, congratulate them and reveal the word.

- If the player loses, inform them that they've run out of attempts and reveal the word.
- Ask if the player wants to play again and reset the game if they do.