



# Introduction to Hangman: The Classic Word Guessing Game

Hangman is a classic word guessing game where players try to guess a hidden word by suggesting letters. The game is played on a board with a blank space for each letter in the word. Incorrect guesses lead to parts of a stick figure being drawn, until eventually, the full hangman is complete.



# Python: The Perfect Language for Building Hangman

## 1 Flexibility

Python allows for a clear and structured approach to building the game logic.

## 3 Libraries

Python has excellent libraries for handling user input, displaying graphics, and generating random words.

## 2 Ease of Use

Its beginner-friendly syntax makes it accessible for programmers of all levels.

## 4 Community

The vibrant Python community provides ample support and resources for learning and problem-solving.

# Setting Up the Game: Importing Modules and Initializing Variables

1

## Import Modules

We start by importing necessary modules like `random` for word selection and `time` for controlling the game's pace.

2

## Initialize Variables

We define variables to store the word to be guessed, the number of incorrect guesses allowed, and the list of guessed letters.

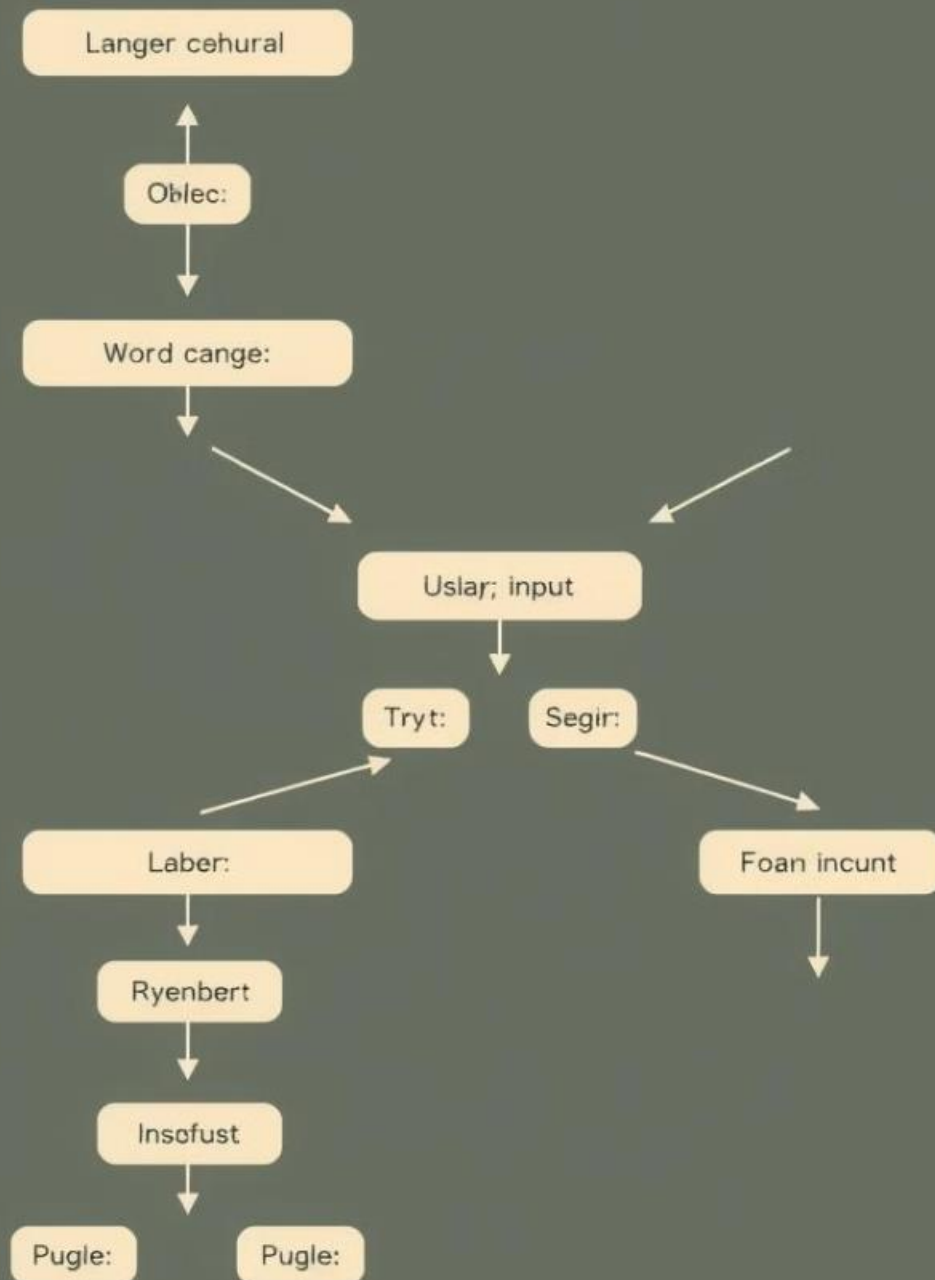
3

## Set Up Game Board

We initialize a list or string to represent the hidden word, initially filled with underscores.



# Hangman-



## Designing the Game Loop: Handling Correct and Incorrect Guesses

1

### Input Letter

The player enters a letter as a guess.

2

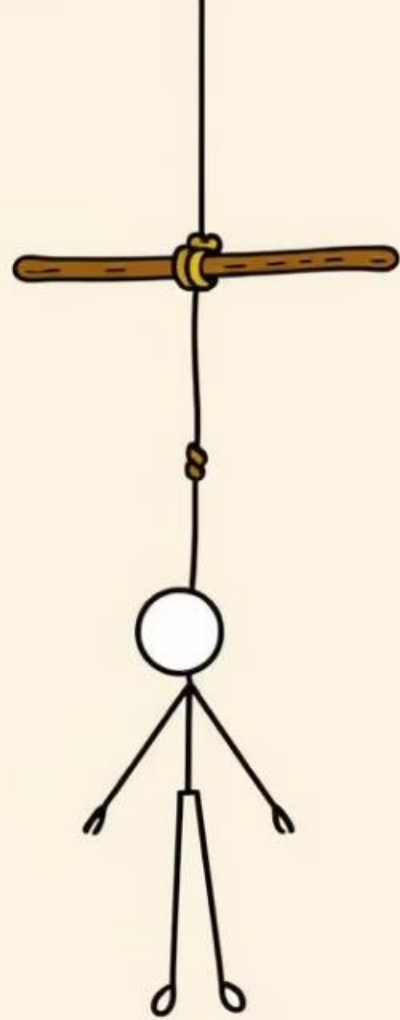
### Check Guess

The program checks if the letter is in the word.

3

### Update State

If correct, the letter is revealed on the board. If incorrect, the hangman figure is updated.



word

# Displaying the Hangman Visuals: Creating the Hangman Diagram



Gallows

The gallows is a vertical beam with a horizontal crossbar.



Rope

The rope connects the hangman to the gallows, forming a noose around the neck.



Head

The head is a circle that is drawn after an incorrect guess.



Body

The body is a rectangle that is drawn after multiple incorrect guesses.

# Implementing the Word Selection: Using a Word List or Random Generation

## Word List

A list of pre-defined words can be used, either from a file or within the code itself.

- Easy
- Medium
- Hard

## Random Generation

A random word generator can be used to select a word from a dictionary or a specific category.



# Adding Interactivity: Accepting User Inputs and Providing Feedback

| Input           | Feedback  |
|-----------------|---|
| Correct Guess   | Reveal letter on the board  |
| Incorrect Guess | Draw a part of the hangman figure, update the number of guesses remaining, and provide a message to the user. |

# Conclusion and Next Steps: Enhancing the Game and Exploring Further Possibilities



## Difficulty Levels

Implement multiple difficulty levels by adjusting the word length or complexity.

## Themes

Introduce themes like animals, countries, or famous people by using relevant word lists.

## Graphics

Improve the visual appeal by using graphics libraries to display the hangman figure and the game board.

## Multiplayer

Allow two players to compete against each other in a turn-based game.