Hangman Game Project Report

1. Introduction

The Hangman game is a simple word-guessing game implemented in Python. It provides players with a fun way to test their vocabulary and logical thinking skills.

2. Features

- Random word generation from a predefined list.

- User-friendly text interface for letter guessing.

- Tracks guessed letters and remaining attempts.

- Customizable word lists and game settings.

3. Gameplay Description

- Players guess one letter at a time.

- Correct guesses reveal the letter(s) in the word.

- Incorrect guesses reduce the number of attempts remaining.

- The game ends when the word is guessed correctly or all attempts are used up.

4. Implementation Details

- Programming Language: Python 3

- Modules Used:

  - 'random' for word selection.

- Word List Storage: A text file containing possible words for the game.

5. Code Structure

- Files and Folders:

- hangman.py: Main game logic.

- words.txt: Word list for the game.

- Main Functions:

  - load_words(): Loads words from the file.

  - display_word(): Displays the current state of the word.

  - play_game(): Handles the main game loop.

6. Results and Testing

- Performance: Tested with various word lists and player inputs.

- User Feedback: Positive remarks on simplicity and engagement.

7. Future Enhancements

- Adding graphical user interface (GUI).

- Introducing difficulty levels (easy, medium, hard).

- Multiplayer mode for competitive play.

- A hint system for players.

8. Conclusion

This project successfully implements the Hangman game in Python, providing a fun and interactive experience. The modular design allows for easy customization and future enhancements.