

National University of Computer & Emerging Sciences
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HANGMAN LOGICAL GAME

Project Proposal

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Project Proposal

- **Introduction**

The project will be a hangman game, which will give the user a hint of the word to guess, and the user has a specified number of chances to guess the wrong answer. Each time the user predicts an incorrect option, he loses a life and a chance. This loss of chance will be shown through a "HANGMAN" Drawn on the console screen.

Once the user gets the answer right, his score is calculated by looking at the number of failed trials the user had made, and if this high score exceeds the previous highest score, it is updated and displayed. Moreover, the wrong options are stored in an array of characters and displayed to the user as "incorrect guesses" to prevent the user from guessing the same character again. The word is set when writing the program.

- **Existing System**

Many hangman games have been developed on the x86 architecture before, which has almost the same features and are less user-interactive or difficult to execute, but we have included some additional features in our project that will make it more user-friendly as mentioned below. The project follows the basic hangman game idea, with better visualization of the lost number of choices, and better hints. Moreover, the wrong guesses are displayed to the user before the user enters his choice, to make the game more user friendly.

- **Proposed Solution**

Through assembly language procedures, conditional-procedures, iterations and nested iterations along with the powerful use of registers on stack/data segments, and mnemonics available in libraries of assembly we will incorporate our features. Procedures will be very much handy for our proposed solution, procedures can be used multiple times to reduce its redundant use where necessary. We will design the project more systematically that it is more user-friendly encompassing all the obligatory functions under a single set of code.

Implementation and after update:

The length of words will be 4, 5, or 6 and will be stored in separate arrays of same data type to make it convenient to use. The words will be coming from different arrays, each array will be separated from another depending upon the length of that array. When the user will enter a character, the ASCII of that character will be compared with all the characters of that particular word through conditional statements, and will show the result based on that comparison. Positions of the words will be selected through offset addressing and every time different word will be displayed.

- **Salient Features**

The following features will be incorporated in Hangman Logical Game:

- 1) High score management
- 2) Logical guessing of objects
- 3) Experimentation- learning through failures (wrong inputs)
- 4) Increased interactivity with user.

- **Tools & Technologies**

The project implementation will be on assembly language (low level language) on MASM (x86 Assembler). For IDE Visual Studio 2022 will be used on windows operating system.

THANK YOU