PROJECT DISCRIPTION:

Develop a software application in Python using the basic concepts and structures of computer programming.

The application will allow the user to play the classic word game Hangman against the computer. You application maintains two interfaces: one for the player and one for the administrator, as shown in the following flow diagram. For the game, the computer picks a word, randomly form a list of available words, and the player tries to guess letters in the word. The player is given a certain number of guesses at the beginning. The game is interactive; as the player inputs his/her guess, the computer either:

- reveals the letter if it exists in the secret word
- penalize the user and updates the number of guesses remaining.

The game ends when either the user guesses the secret word, or the user runs out of guesses

DISTINGUISHING FEATURES OF THE PROJECT:

First, the program prompts the user to choose between playing as a user or making administrative modifications.

The program randomly chooses a word from a text file of 5000 words for the user interface, and the user must guess each letter from a list of alphabets that is displayed to them.

The application prints a notification, if the letter predicted is incorrect, and the user loses one of their six guesses. The user is shown a list of alphabets before each turn that does not include the letter they just guessed, and the system also keeps track of the letter they guessed. User loses a guess when the number of warnings reaches zero. The software ends when the user correctly guesses the word or when the number of guesses and warnings reaches zero. The user's score and the highest score are printed at the end of the code.

In contrast, the program's admin interface will give the admin the option to either add a word to the text file or reset the high score file.

Following are the specific features of the program:

1. The program logic is divided in to functions.
2. Game function allows user to play the game while admin mode allows the user to reset the high-score or to add word in the text file.
3. In user mode the user guesses the letter one by one, we initially provide user with 6 guesses and 3 warnings.
4. The program automatically appends the letter in the list of guessed letters and also removes the letter from the set of available letters.
5. The player forfeits a guess if a letter is not in the word.
6. The player loses two guesses if they insert a vowel that is not present in the term.
7. If the player enters a vowel already guessed before, the player loses one guess.
8. The player forfeits a warning if they enter anything other than an alphabet.
9. The player forfeits a guess if the warning value falls to zero.

10. If the player successfully guesses the word, the application calls the player-score and high-score functions to print the player's score and high score respectively.
11. If the player guesses the word incorrectly, the application just displays the player's high score.
12. In admin mode, the program offers the user the option to play the game, add single or multiple words to a text file, or reset the high-score file.
13. In addition, we also used time and random functions and also imported lowercase alphabet from the string library. If the player enters anything besides an alphabet, the player loses a warning.

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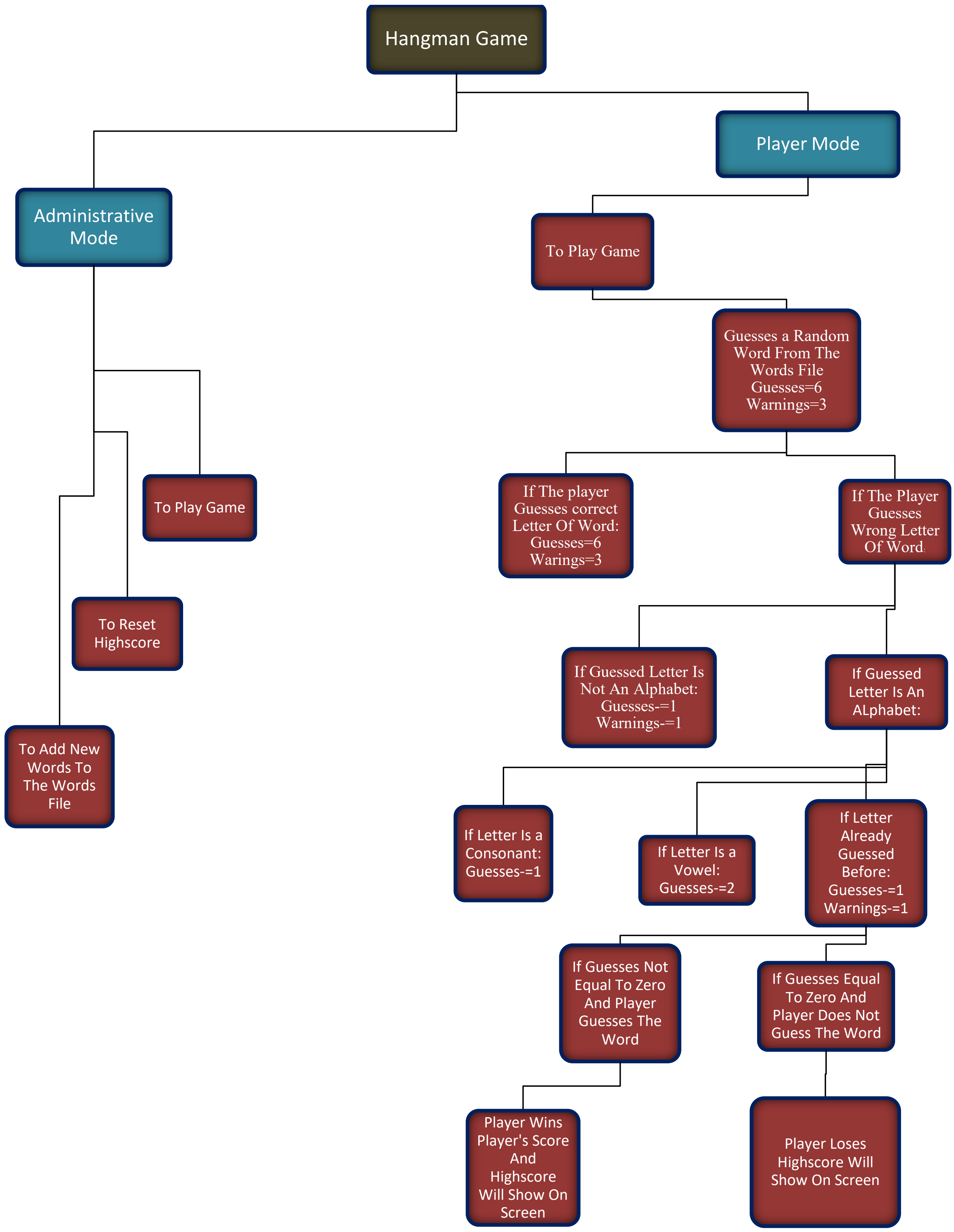
FLOW OF THE PROJECT:


Hangman Game
Administrative Mode
Player Mode
To Play Game
To Reset Highscore
To Add New Words To The Words File
To Play Game
Guesses a Random Word From The Words File Guesses=6 Warnings=3
If The player Guesses correct Letter Of Word: Guesses=6 Warings=3
If The Player Guesses Wrong Letter Of Word.
If Guessed Letter Is Not An Alphabet: Guesses-=1 Warnings-=1
If Guessed Letter Is An ALphabet:
If Letter Is a Consonant: Guesses-=1
If Letter Is a Vowel: Guesses-=2
If Letter Already Guessed Before: Guesses-=1 Warnings-=1
If Guesses Not Equal To Zero And Player Guesses The Word
If Guesses Equal To Zero And Player Does Not Guess The Word
Player Wins Player's Score And Highscore Will Show On Screen
Player Loses Highscore Will Show On Screen