Michael Lee

Konstantinovich Period 9

Final Project Prototype

Evil Hangman

Summary:

Evil Hangman is a single-player word game where a user plays against a computer, where the user is the guesser. It is just like regular hangman, except the word is not set at the beginning of the game. Instead, the computer changes the word throughout the game in order to make it as difficult as possible for the user to guess it, as long as the changed word still falls in line with already-revealed letters. The final product will be a text-based terminal hangman game that takes user input in the form of letters and/or word guesses, and uses this input for a game of Evil Hangman.

Features:

-one-player interactive hangman game with the program through terminal

-high-score keeper

-difficulty levels

-multiple language support

Detailed Description:

The program will start with a list of every word in the English language (downloaded from an online source). The user may pick a word length at the beginning of the game. At this point, the program will create a subset of English words that satisfy this condition. Every time the user guesses a letter, the program will create a smaller subset of words that do not contain the letter, and it will tell the user that the letter was not found. This will keep happening every time the user guesses a letter, until eventually there is only one word left (or every remaining word contains the same letter) and the program must cede a letter to the user. If the program cedes a letter, it will consider all possible positions to place this letter, and pick the position that leaves the most remaining words. This keeps going until either the user guesses the word, or they run out of guesses and loses. A possible point of deviation would be for the program, at a point when it does not need to cede a letter, to cede the letter because it would be more beneficial in the long run, as it leaves up more possible words. Also, difficulty levels could determine whether the program chooses the most efficient path, or maybe the second most efficient path to make the game slightly easier for the user.

Roadmap:

-stuff for the basic/simple algorithm: by Jun 4th

-terminal stuff: after algorithmic stuff, finished before first demo Jun 8th

-incorporate more advanced/smarter algorithms: work on until Jun 12th

Work Distribution:

-solo project