



Pictionary

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Overview

Pictionary is a game that helps a person learn new words in a fun way. The main objective of the game is to guess a word correctly in the least no. of attempts. This game is very useful for dyslexic children, as it provides a medium of learning words which does not require a lot of reading or writing and also provides an interesting and fun way to remember the words.

Specifications

Language used: Python

Tools used:

1. Wordnet database by Princeton university
2. Dictionary from the website: www.ipicthat.com
3. Text to speech module: pyttsx

About the Game:

Pictionary makes use of two popular games 'Hangman' and 'Cows and Bulls'. The user has an option to select any one game. Once the game is completed and the word is either guessed correctly or the player quits, the word along with its meanings, synonyms, antonyms, example sentences and Picture to remember the word by are displayed. To make it easier and helpful for dyslexic children, all of the above mentioned information are also read out to the user.

Game Strategy of 'Cows and Bulls' and 'Hangman':

Cows n Bulls:

- ❖ The player will be asked to guess a secret word of a specific length(The word should exist in the english language).
- ❖ The player's input will be given an answer of the no. of whites and blacks.
 - White -A letter in is the word to be guessed and is also in the right place.
 - Black -A letter is there in the word but is not in the right place.
- ❖ The strategy is to guess new words depending upon the previous guesses.
- ❖ Thus the word you guess will either be the right word or will give you possible candidates for the letters in the word to be guessed
- ❖ The player should try to guess the word in the least no. of attempts.

Hangman:

- ❖ The player will be asked to guess a secret word of a specific length(The word should exist in the english language).
- ❖ The players guess a letter that is in the secret word and it is filled into the blank where it occurs.
- ❖ If the player guesses guesses a letter that repeats, both the positions are filled.
- ❖ Whenever the player guess a letter that is not in the secret word they get a strike that brings them closer to losing.

Future scope of the project:

1. To implement dynamic difficulty using concepts of Machine Learning and Natural Language Processing.
2. To create a dictionary database that include all the words in the English language with all the information pertaining to a word such as Frequency of use of a word, no. of contexts a word can be used in, etc.