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1st March 2022

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#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <time.h>

//char dictionary[50][100000];

#define MAXSTRING 50

int readDictionary(); //read in dictionary to array. And return size of array.

int random(int max);

typedef struct {

char dictionaryWord[50];

}dictionary;

dictionary word[100000];

void main()

{

srand(time(NULL)); //seed random

//Read the dictionary into an array and get size of array.

int size = readDictionary();

printf("Successfully loaded %d words from the dictionary.\n\n", size);

//Find a random word from the array

char randomWord[50];

int randomIndex = random(size);

strcpy\_s(randomWord, 50, word[randomIndex].dictionaryWord);

//Make a string of -'s the length of the random word.

int randomWordLength = strlen(randomWord);

char dashedWord[50] = "";

for (int k = 0; k < randomWordLength; k++)

{

dashedWord[k] = '-';

}

printf("Dashed word = %s\n\n", dashedWord);

//GUESSING

int wordFound = 0;

int attempt = 1;

char guess = "";

char enterKey = "";

while (wordFound == 0)

{

printf("\n\nAttempt %d.\n============\n\n", attempt);

printf("Enter a 1 letter guess: ");

scanf\_s("%c", &guess, 1); //Get a guess from user

scanf\_s("%c", &enterKey, 1); //take the enter key character from the input buffer.

printf("\nYour guess was: %c\n", guess);

//CHECK IF GUESS WAS IN WORD AND CHANGE AT ALL INSTANCES.

//Loop through random word. If the letter == guess then set the change.

int letterFound = 0;

for (int i = 0; i < randomWordLength; i++)

{

if (randomWord[i] == guess)

{

dashedWord[i] = guess;

letterFound = 1;

}

}

if (letterFound == 1)

{

printf("Your guess was successful.");

}

else

{

printf("Try again.");

}

printf("\n\nDashed word = %s\n\n", dashedWord);

//CHECK IF THE WORD IS COMPLETE

if (strcmp(dashedWord, randomWord) == 0)

{

printf("Well done, that took you %d guesses to find %s.", attempt, randomWord);

wordFound = 1;

}

attempt++;

}

}

int readDictionary()

{

//Read the dictionary into an array

dictionary newWord;

//Open file

FILE\* fptr;

fopen\_s(&fptr, "C:\\Users\\Maxie\\Desktop\\dictionary.txt", "r");

char tempWord[MAXSTRING];

int tempLength = 0;

int size = 0;

char delims[] = "\n";

if (fptr == NULL)

{

printf("The dictionary could not be read.");

}

else

{

while (!feof(fptr) && size < 100000)

{

fgets(tempWord, 50, fptr); //Get the line from dictionary file.

//Remove the \n

char\* next = NULL;

char\* first = strtok\_s(tempWord, delims, &next);

if (strlen(first) >= 4 && strlen(first) <= 7) //Check the length.

{

strcpy\_s(newWord.dictionaryWord, 50, first); //Copy the word into the array.

word[size] = newWord;

size++;

}

}

fclose(fptr);

}

return size;

}

int random(int max) //return a random intger from 0 to max

{

return rand() % max;

}

