POWERVOCAB

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PROBLEM DEFINITION

Build your vocabulary with the **POWERVOCAB**. Find the meaning for any word in the **WORD FINDER** category. Quiz yourself every day to learn new words on the **WORD GAME**. Daily **WORD OF THE DAY** to master your vocabulary. Now you can practice and improve your vocabulary anywhere, any time!

MODULE IDENTIFICATION

Several modules that we have used in the project are:

1. void wotd()

   This module is used to display the “WORD OF THE DAY”. Randomly, any word is chosen from the words file and corresponding to that it’s meaning is displayed.

2. void search()

   This module is used to search the meaning for the word entered by the user. If the word is present, it’s meaning is displayed otherwise that word is added to a new file displaying the message “WORD NOT FOUND. WE’LL ADD THIS WORD IN THE UPCOMING VERSION”.

3. void game()

   This module is used to play the “WORD GAME”. Randomly, a word is displayed, you have to select a meaning of the given word out of the four options provided. Also, your score is calculated that is +1 for every correct answer.

4. int checkAns(int, int, int, int)

   This module takes input as integers (meaning of the word) and saves them in a sorted array. It is used to calculate the position of the correct answer in the array and return it back.

5. void menu()

   This module is used to display the landing page and the menu of the app.

6. void intro()

   This module is used to display the name of the app, on every page.

7. char back()

   This module is used as a back button. It returns a character value, and corresponding to that instruction is executed.

8. void delay()

   This module is used to delay some output.

CODE

```
#include<stdio.h>
#include<stdlib.h>
#include<time.h>
#include<conio.h>
#include<string.h>

#define LOWER 1
#define UPPER 50
#define DELAY 20000

void delay();
char back();
void intro();
void menu();
int checkAns(int, int, int, int);
void wotd();
void search();
void game();

void delay()
{    int i,j;
   for(i=0;i<DELAY;i++)
      for(j=0;j<DELAY;j++);
}
```

```
char back()
{   char ch;
   printf("\n\n\n\n\n\t\t\t PRESS ANY KEY TO GO BACK");
   printf("\t\t\t\t  PRESS 1 TO EXIT ");
   ch = getch();
   return ch;
}

void intro()
{   printf("\n\n\t\t
**********
**********");
   printf("\n\n\t\t\t\t\t\t\t     POWER-VOCAB ");
   printf("\n\n\t\t
**********
**********");
}

void menu()
{   char b;
   do
   {   char opt;
      system("cls");
      intro();
      printf("\n\n\n\t\t\t BUILD YOUR VOCABULARY WITH \"POWER-VOCAB\" ");
      printf("\n\t\t\t FIND MEANING FOR ANY WORD IN THE WORD FINDER!");
      printf("\n\t\t\t QUIZ YOURSELF EVERY DAY TO LEARN NEW WORDS ON THE WORD
GAME!");
```

```
      printf("\n\t\t\t NOW YOU CAN PRACTICE AND IMPROVE YOUR VOCABULARY ANYWHERE,
ANY TIME!");
      printf("\n\n\n\t\t\t 1. WORD OF THE DAY");
      printf("\n\n\t\t\t 2. WORD FINDER");
      printf("\n\n\t\t\t 3. WORD GAME");
      printf("\n\n\t\t\t 4. EXIT");
      printf("\n\n\n\t\t\t ENTER YOUR CHOICE: ");
      scanf(" %c", &opt);
      switch(opt)
      {    case '1': wotd();
                  b = back();
                  break;
         case '2': search();
                  b = back();
                   break;
         case '3': game();
                  b = back();
                   break;
         case '4': printf("\n\t\t\t EXITING...");
                    delay();
                  exit(0);
         default : printf("\n\n\t\t\t INCORRECT INPUT \n");
                       printf("\n\t\t\t PLEASE ENTER CORRECT INPUT");
                  delay();
      }
   }while(b!='1');
}
```

```
int checkAns(random, num1, num2, num3)                    //sort array in asc order
{   int a,b,n,temp;
   int arr[4] = {random, num1, num2, num3};
   for(a=0;a<4;a++)
   {   for(b=a+1;b<4;b++)
      {   if(arr[a] > arr[b])
         {   temp = arr[a];
            arr[a] = arr[b];
            arr[b] = temp;
         }
      }
   }
   for(a=0;a<4;a++)
   {   if(arr[a]==random)
         break;
   }
   a++;
   n=a;
   return n;
}

void wotd()
{   FILE *f,*x;
   int random;
   char c[80],c1[10],c2[80];
```

```
    system("cls");
    intro();
    printf("\n\n\n\t\t\t WORD OF THE DAY");

    f=fopen("words.txt","r");
    x=fopen("meaning.txt","r");

    if(f==NULL || x==NULL)
       printf("\n\t\t\t WORD/MEANING FILE NOT FOUND");
    else
    {    int i=0;
         srand(time(NULL));
       random = (rand() % (UPPER - LOWER + 1)) + LOWER;
          while(i!=random)
          {    fscanf(f,"%[^\n]",c);
               fscanf(x,"%[^\n]",c2);
            i++;
            if(i==random)
                printf("\n\n\t\t\t %s -> %s ",c,c2);
       fgets(c,strlen(c),f);
       fgets(c2,strlen(c2),x);
       }
    }
    fclose(f);
    fclose(x);
    delay();
}
```

```
void search()
{   int check=0;
   FILE *f,*x,*y;
   char c[80],c1[10],c2[80],ch;

   do
   {   system("cls");
      intro();
      printf("\n\n");
      check=0;

      printf("\n\t\t\t ENTER ANY WORD TO SEARCH FOR IT'S MEANING \n\n");

      printf("\n\t\t\t ENTER WORD: ");
      scanf("%s", c1);

      f=fopen("words.txt","r");
      x=fopen("meaning.txt","r");

      if(f==NULL || x==NULL)
         printf("\n\t\t\t WORD/MEANING FILE NOT FOUND");
      else
      {   int i=0;
         while(!feof(f))
            {   fscanf(f,"%[^\n]",c);
               fscanf(x,"%[^\n]",c2);
```

```
            i++;
            if(!strcmp(c,c1))
            {    printf("\n\n\t\t\t !!! WORD FOUND !!! \n\n");
                 check=1;
                 printf("\t\t\t %s -> %s \n",c,c2);
             }
        fgets(c,strlen(c),f);
        fgets(c2,strlen(c2),x);
        }
    }

    if(check==0)
    {    printf("\n\n\t\t\t WORD NOT FOUND \n");
        printf("\n\t\t\t WE'LL ADD THIS WORD IN THE UPCOMING VERSION \n");
        y = fopen("new_words.txt", "a+");
        fputs(c1, y);
        fputs("\n", y);
    }

    printf("\n\n\n\t\t\t WANT TO SEARCH SOME OTHER WORD(Y/N)?: ");
    scanf(" %c",&ch);

    fclose(f);
    fclose(x);
    fclose(y);
    delay();
}while(ch=='y' || ch=='Y');
```

```
}

void game()
{   FILE *f,*x;
   int num1,num2,num3,random,index,score=0,check=0,ans,no=1;
   char c[80],c1[10],c2[80];

   do
   {   system("cls");
      intro();
      printf("\n\n");

      printf("\n\t\t\t SELECT MEANING OF THE GIVEN WORD OUT OF THE FOUR OPTIONS
PROVIDED \n\n");

      srand(time(NULL));

      random = (rand() % (UPPER - LOWER + 1)) + LOWER;          //to create 4 random nos
      do
      {   num1 = (rand() % (UPPER - LOWER + 1)) + LOWER;
      }while(num1==random);
      do
      {   num2 = (rand() % (UPPER - LOWER + 1)) + LOWER;
      }while(num1==num2 || num2==random);
      do
      {   num3 = (rand() % (UPPER - LOWER + 1)) + LOWER;
      }while(num1==num2 || num1==num3 || num2==num3 || num3==random);
```

```
    index = checkAns(random, num1, num2, num3);                //to find the correct
answer(array subscript) in the sorted array


    f=fopen("words.txt","r");
    x=fopen("meaning.txt","r");


    if(f==NULL || x==NULL)
       printf("\n\t\t\t WORD/MEANING FILE NOT FOUND");
    else
    {   int i=0;
        while(i!=random)                          //to print the random word from the file
        {   fscanf(f,"%[^\n]",c);
            i++;
          if(i==random)
              printf("\n\t\t\t WORD: %s ",c);
          fgets(c,strlen(c),f);
       }
       printf("\t\t\t\t\t\t\t SCORE: %d \n", score);
       printf("\n");
       i=0;
       no=1;
       while(!feof(x))                            //to print any 4 meanings (asc order)
       {   fscanf(x,"%[^\n]",c2);
          i++;
          if(i==random)
          {   printf("\n\t\t\t %d) %s \n", no, c2);
```

```
      no++;
   }
   if(i==num1)
   {    printf("\n\t\t\t %d) %s \n", no, c2);
      no++;
   }
   if(i==num2)
    {    printf("\n\t\t\t %d) %s \n", no, c2);
      no++;
   }
   if(i==num3)
    {    printf("\n\t\t\t %d) %s \n", no, c2);
      no++;
   }
   fgets(c2,strlen(c2),x);
}
fclose(f);
fclose(x);

 f=fopen("words.txt","r");                    //to check answer again opening both files
x=fopen("meaning.txt","r");

 if(f==NULL || x==NULL)
   printf("\n\t\t\t WORD/MEANING FILE NOT FOUND");
 else
 {    printf("\n\n\t\t\t ENTER YOUR CHOICE: ");
   scanf("%d", &ans);
```

```
        if(index==ans)
        {   printf("\n\t\t\t CONGRATULATIONS!! ");
            printf(" CORRECT ANSWER ");
            score++;
        }
        else
        {   printf("\n\t\t\t BETTER LUCK NEXT TIME");
            printf("\n\t\t\t THE CORRECT ANSWER IS: ");
            i=0;
            check=1;
            while(i!=random)
            {   fscanf(x,"%[^\n]",c2);
                i++;
                if(i==random)
                    printf("%s ", c2);
            fgets(c2,strlen(c2),x);
             }
        }
      }
   }
   delay();
}while(check==0);

printf("\n\n\t\t\t TOTAL SCORE: %d ", score);

fclose(f);
fclose(x);
```

```
    delay();
}

int main()
{    menu();
    return 0;
}
```

TESTING SCREENSHOTS

Fig. 1

Fig. 2

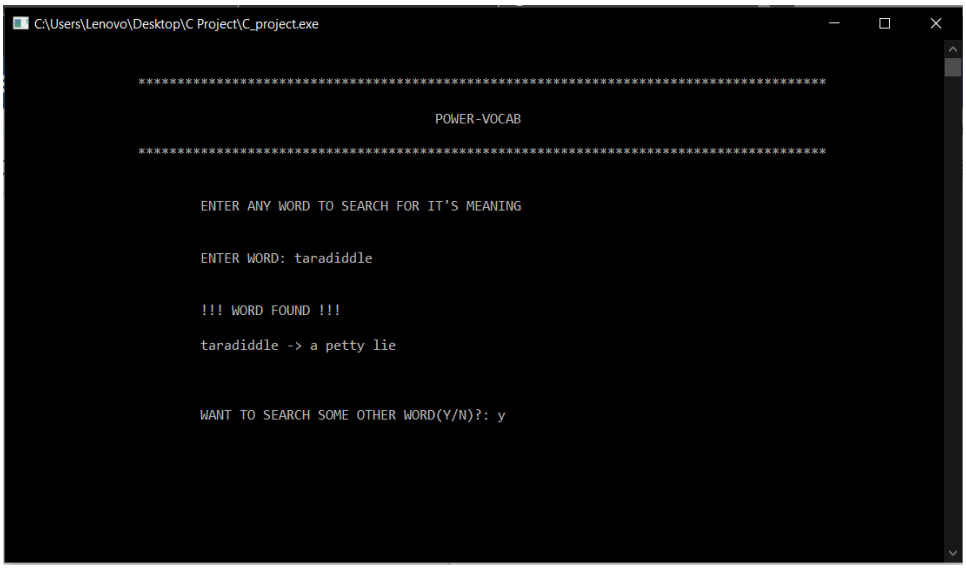
C:\Users\Lenovo\Desktop\C Project\C_project.exe
****
POWER-VOCAB
****
ENTER ANY WORD TO SEARCH FOR IT'S MEANING
ENTER WORD: taradiddle
!!! WORD FOUND !!!
taradiddle -> a petty lie
WANT TO SEARCH SOME OTHER WORD(Y/N)?: y

Fig. 3

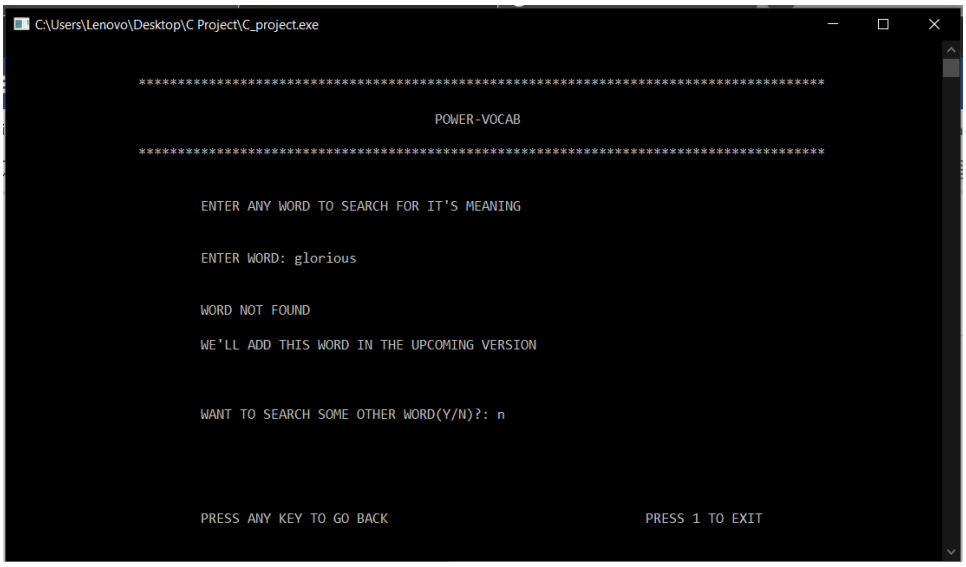
C:\Users\Lenovo\Desktop\C Project\C_project.exe
****
POWER-VOCAB
****
ENTER ANY WORD TO SEARCH FOR IT'S MEANING
ENTER WORD: glorious
WORD NOT FOUND
WE'LL ADD THIS WORD IN THE UPCOMING VERSION
WANT TO SEARCH SOME OTHER WORD(Y/N)?: n
PRESS ANY KEY TO GO BACK
PRESS 1 TO EXIT

Fig. 4

C:\Users\Lenovo\Desktop\C Project\C_project.exe
POWER-VOCAB
SELECT MEANING OF THE GIVEN WORD OUT OF THE FOUR OPTIONS PROVIDED
WORD: taradiddle
SCORE: 2
1) to begin a discussion of something difficult
2) proudly refusing to obey authority
3) to confuse someone so much that they do not know what to do
4) a petty lie
ENTER YOUR CHOICE: 4
CONGRATULATIONS!! CORRECT ANSWER

Fig. 5

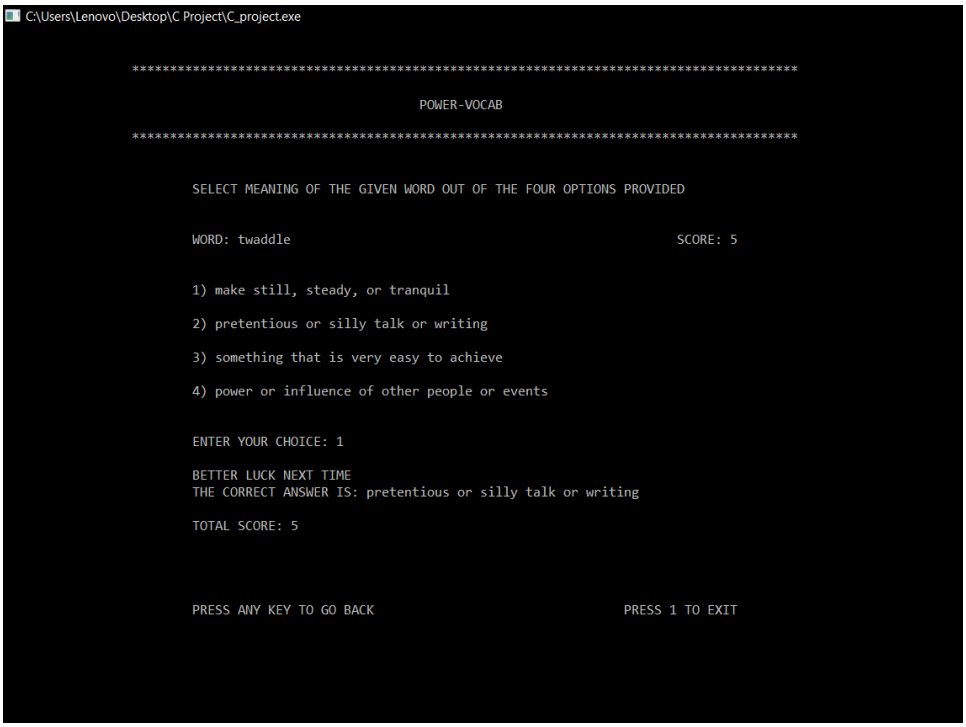
C:\Users\Lenovo\Desktop\C Project\C_project.exe
POWER-VOCAB
SELECT MEANING OF THE GIVEN WORD OUT OF THE FOUR OPTIONS PROVIDED
WORD: twaddle
SCORE: 5
1) make still, steady, or tranquil
2) pretentious or silly talk or writing
3) something that is very easy to achieve
4) power or influence of other people or events
ENTER YOUR CHOICE: 1
BETTER LUCK NEXT TIME
THE CORRECT ANSWER IS: pretentious or silly talk or writing
TOTAL SCORE: 5
PRESS ANY KEY TO GO BACK
PRESS 1 TO EXIT

Fig. 6

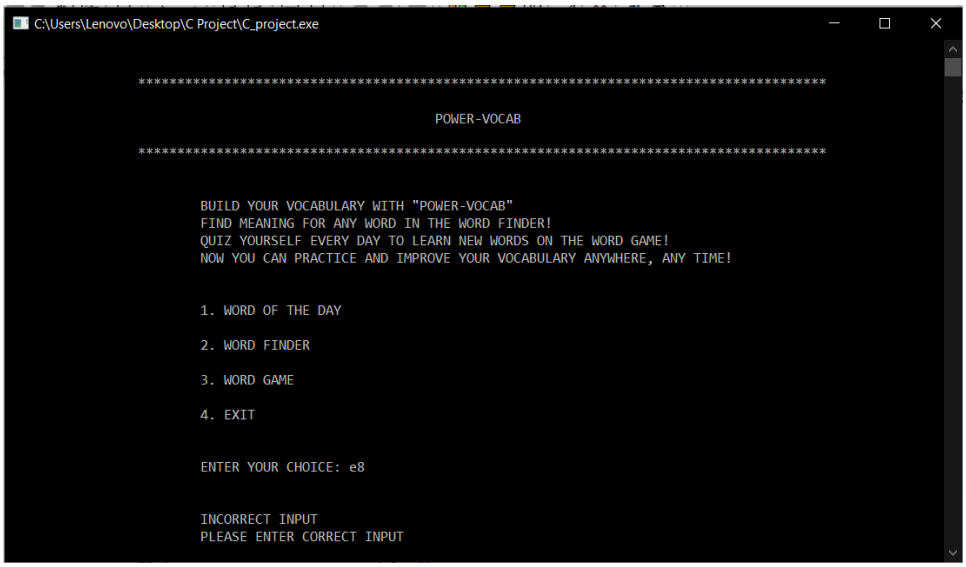
C:\Users\Lenovo\Desktop\C Project\C_project.exe
****
POWER-VOCAB
****
BUILD YOUR VOCABULARY WITH "POWER-VOCAB"
FIND MEANING FOR ANY WORD IN THE WORD FINDER!
QUIZ YOURSELF EVERY DAY TO LEARN NEW WORDS ON THE WORD GAME!
NOW YOU CAN PRACTICE AND IMPROVE YOUR VOCABULARY ANYWHERE, ANY TIME!
1. WORD OF THE DAY
2. WORD FINDER
3. WORD GAME
4. EXIT
ENTER YOUR CHOICE: e8
INCORRECT INPUT
PLEASE ENTER CORRECT INPUT

Fig. 7

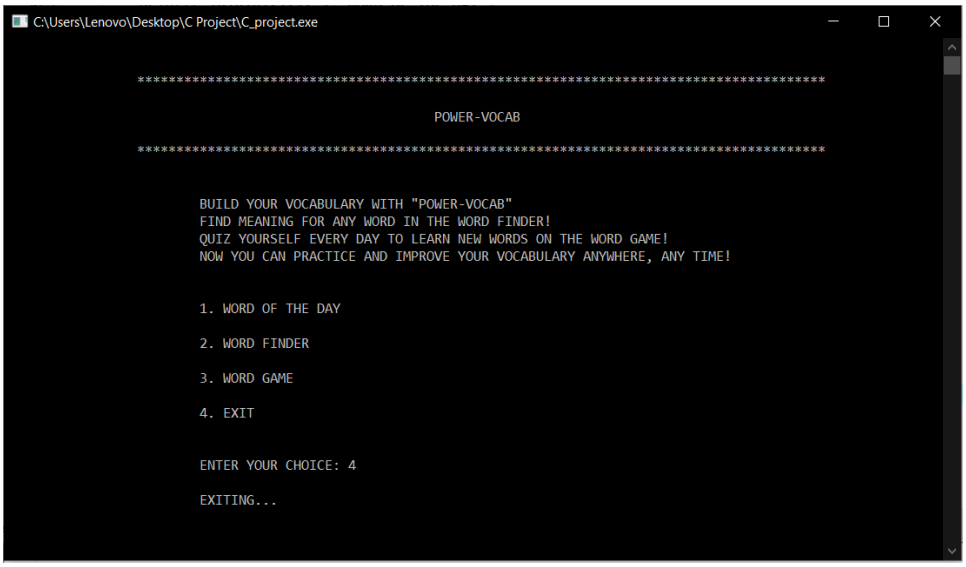
C:\Users\Lenovo\Desktop\C Project\C_project.exe
****
POWER-VOCAB
****
BUILD YOUR VOCABULARY WITH "POWER-VOCAB"
FIND MEANING FOR ANY WORD IN THE WORD FINDER!
QUIZ YOURSELF EVERY DAY TO LEARN NEW WORDS ON THE WORD GAME!
NOW YOU CAN PRACTICE AND IMPROVE YOUR VOCABULARY ANYWHERE, ANY TIME!
1. WORD OF THE DAY
2. WORD FINDER
3. WORD GAME
4. EXIT
ENTER YOUR CHOICE: 4
EXITING...

Fig. 8

FUTURE SCOPE

- The future scope of the project is that we are going to add new words to it.
- New quizzes and gaming levels to make learning more fun.
- Add a signup, login tab and user profile to check your progress and work upon your language according to that.
- We are going to add basic English learning lessons and mock tests.

REFERENCES

- www.stackoverflow.com
- www.geeksforgeeks.org
- www.tutorialspoint.com
- www.w3schools.com