A Project Report On
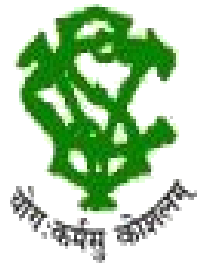
THE WORD GAME

(in C++)

COLLEGE OF VOCATIONAL STUDIES

(University of Delhi)

Submitted By

RAVI PRAKASH

B.Sc. (Hon.)

Computer Science

(Sem.-I, 2017-18)

HEADER FILES USED

1. FSTREAM.H – for file handling, cin and cout

2. PROCESS.H – for exit() function

3. CONIO.H – for clrscr(), getch(), cprintf() & textcolor() functions

4. STDIO.H – for standard I/O operations

5. STRING.H – for string handling

6. DOS.H– for delay() function

7. CTYPE.H– for toupper() function

FILES GENERATED

DATA FILES

WINNER.TXT

PROGRAM FILE

WORD_GAME.CPP

WORKING DESCRIPTION

This program is designed for any–one to pass his/her time & increase the vocabulary. This program consists of SIX options as follows -

1. WELCOME – MAIN MENU
2. PLAY NEW GAME
3. ABOUT THE GAME
4. WINNERS LIST
5. SUMMERY
6. EXIT

CODING

/*   THE WORD-GAME   */
/*   HEADER FILES' INCLUSION   */

//SUBMITTED BY "RAVI PRAKASH"

```
#include<fstream.h>
#include<conio.h>
#include<string.h>
#include<process.h>
#include<stdio.h>
#include<dos.h>
#include<ctype.h>
```

/*   PROTOTYPE DECLEARATION   */

```
void play();                            // To play game
void selection(int);                    // User's selection (logic)
void about();                           // Introduction to the game
void credit();                          // About the developer
void winner();                          // Last 5 winners (STACK)
void summery(int,int);                  // Summery of words entered by players
void win_update(char Winner[25]);       // Updates Winner.txt
```

/* CLASS */
/* FOR MAIN-MENU */

```cpp
class Begin
{
  private:
        char option;
  public:
        void Menu()
        {
           textcolor(1);
                cout<<"\n\n\t\t";
                cprintf("MAIN - MENU\n\n");
                cout<<"\n\t\tEnter any one of the following:\n"
                   <<"\n\t\t\'1\' to PLAY"
                   <<"\n\t\t\'2\' to know about the WORD-GAME"
                   <<"\n\t\t\'3\' for Credit"
                   <<"\n\t\t\'4\' for last 5 Winners"
                   <<"\n\t\t\'5\' to exit";

                cprintf("\n_____\n");
                cout<<"\n\n\t\t";
           textcolor(14);
                cprintf("*");
                cout<<" Please do not input any key other then 1, 2, 3, 4 "
                   <<"or 5 ";
                cprintf("*");
                cout<<"\n\t";
                cout<<"\n\n\t\t  Enter your choice: ";
                cin>>option;
           selection(option);
           clrscr();
        }
```

```cpp
        void Choice(char a);
        {
            if(a!='0')
            {
                clrscr();
                Menu();
            }
            else
            {
                clrscr();
                cout<<"\n\tThanks for giving a look.";
                delay(2000);
                exit(0);
            }
        }
}Main;                          // A Global Variable that's to be Used Throughout the Program


        /*   GLOBAL  VARIABLES' DECLEARATION   */
 char p1[80],p2[80],word[80][80];


                /*            THE MAIN FUNCTION        */


int main()
{
clrscr();
    textcolor(2);
        cout<<"\n\t\t";
        cprintf("WELCOME TO WORD-GAME");
        cout<<"\n\t      ";
        cprintf("_____");

    Main.Menu();
```

```cpp
    return 0;
}
```

/* SWITCH FOR USER PREFERANCE (LOGIC) FOR MENU */

```cpp
void selection(int a)
{
    do
    {
        switch(a)
        {
            case 1: play();
                    break;
            case 2: about();
                    break;
            case 3: credit();
                    break;
            case 4: winner();
                    break;
            case 5: {
                        clrscr();
                        cout<<"\n\tThanks for giving a look.";
                        delay(2000);
                        exit(0);
                    }
                    break;
            default: {
                        clrscr();
                        cout<<"\n\n\tSorry! It seems that you have "
                            <<"entered an incorrect key!!"
                            <<"\n\tWe should get exit...";
                        delay(4500);
                        exit(0);
```

```cpp
                    }
            }
    }while(a!=4);
}
```

/* TO PLAY/START NEW GAME */

```cpp
void play()
{
clrscr();
    int j,x,i,num=0;
                cout<<"\n\t";
        textcolor(5);
                cprintf("RULES:-");
                cout<<"\n\t\b";
                cprintf("_____\n");
                cout<<"\n\t1)Players must have to enter the word within"
                    <<"a fixed time-limit i.e. \n\t   30 seconds.";
                cout<<"\n\t2) One who leaves game first would be considered"
                    <<" defeated.";
                cout<<"\n\t3) Player can accept defeat by entering \'*\' "
                    <<"instead of the word.";
                cout<<"\n\t4) All words must be in small letter.";
                cout<<"\n\t\t\t\t";
                cprintf("_____\n");
                cout<<"\n\n\n";
                cout<<"\tPress any key to proceed.";
                getch();
                clrscr();

    int d,e;
    textcolor(8);
                cprintf("\n\nLet\'s Begin:-\n");
```

```
     cout<<"\nName of first player: ";
 gets(p1); e=strlen(p1); for(d=0;d<e;d++)p1[d]=toupper(p1[d]);
     cout<<"Name of second player: ";
gets(p2); e=strlen(p2); for(d=0;d<e;d++)p2[d]=toupper(p2[d]);
     cout<<"No. of words that each player\'d enter (max 40): ";
     cin>>j;
             if((j<1)||(j>40))
             {
              clrscr();
              cout<<"\n\tSorry!! Wrong input. Try next time.";
              delay(2000);
              exit(0);
             }
         cout<<"\t\t\t";
         cprintf("\n_____\n");
         j*=2;

textcolor(3);
         cout<<"\n\n\t"; cprintf(p1);<<"! Enter first word: ";
         gets(word[0]);
         x=strlen(word[0]);
           for(i=1;i<j;i++)
           {
             if(i%2==0)
             { clrscr();
               cout<<"\n\n\t"; cprintf(p1);<<"! Enter next word starting with"
                   <<" \'"<<word[i-1][x-1]<<"\', "
                   <<"\n\t(within 30 seconds) : \t\t\t";
               gets(word[i]);
                 if(word[i][0]!=word[i-1][x-1])
                 {
                    do
                    {
```

```cpp
                    if(word[i][0]=='*')
                    {
                       cout<<"\n\t";
                       cprintf("_____");
                       cprintf("_____");
                       cout<<"\n\t\t"; cprintf(p2);
                            <<"! Your opponent has knelt in front"
                            <<" of you! You Won!!!";
                       goto MATCH;
                    }
                    else
                    {
                       cout<<"\n\tWord should start with \'"
                            <<word[i-1][x-1]<<"\'! \n\t";
                     textcolor(8);
                       cprintf("Either enter \'*\' if you have no");
                       cprintf(" words, or enter the word again: ");
                       gets(word[i]);
                    }

                    if(word[i][0]==word[i-1][x-1])
                    break;
                    num++;

            }while(num!=2);
       }

       if(num==2)
       {
         textcolor(3);
          cout<<"\n\t";
          cprintf("_____");
          cprintf("_____\n");
          cout<<"\t\tSorry! "
```

```cpp
                    <<"You\'ve crossed limit. You are lost!!";
            cout<<"\n\t";
            cprintf(p2);cout<<"! You won, "
                            <<"as you are a living dictionary!!";
            goto MATCH;
        }
        else
        num=0;
    }
    else
    {
        cout<<"\n\n\t";
        cprintf(p2);
        cout<<"! Enter next word starting with \'"
            <<word[i-1][x-1]
            <<"\', \n\t(within 30 seconds) : \t\t\t";
        gets(word[i]);

        if(word[i][0]!=word[i-1][x-1])
        {
            do
            {
                if(word[i][0]=='*')
                {
                    cout<<"\n\t";
                    cprintf("_____");
                    cprintf("_____");
                    cout<<"\n\t\t";cprintf(p1);
                    cout<<"! Your opponent has knelt in front"
                        <<" of you! You Won!!!";
                    goto MATCH;
                }
                else
```

```cpp
                    {
                        cout<<"\n\tWord should start with \'"
                            <<word[i-1][x-1]<<"\'! \n\t";
                        textcolor(8);
                        cprintf("Either enter \'*\' if you have no");
                        cprintf(" words, or enter the word again: ");
                        gets(word[i]);
                    }
                    if(word[i][0]==word[i-1][x-1])
                        break;

                    num++;
                }while(num!=2);
            }

            if(num==2)
            {
                textcolor(3);
                cout<<"\n\t";
                cprintf("_____");
                cprintf("_____\n");
                cout<<"\t\tSorry! "
                    <<"You\'ve crossed limit. You are lost!!";
                cout<<"\n\t";cprintf(p1);cout<<"! You won, "
                    <<"as you are a living dictionary!!";
                goto MATCH;
            }
            else
                num=0;
        }

        x=strlen(word[i]);
    }
```

```cpp
        MATCH:                    // The Label for Evaluation & Finishing of Game
          if(i==j)
          {
            cout<<"\n\t";
            cprintf("_____");
            cprintf("_____\n");
            cout<<"\n\n\t";
            cprintf("How great players you are! ");
            cprintf("The match is draw!!!");
            cout<<"\t";
          }
          else
          {
            cout<<"\n\n\t";
                if(i%2==0)
                {
                    cprintf("Winner is: ");cprintf(p2);
                    win_update(p2);
                }
                else
                {
                    cprintf("Winner is: ");cprintf(p1);
                    win_update(p1);
                }
          }

    int copy=j;
    j=i;
      cout<<"\n\n\n\t";
        char choice;
          textcolor(10);
                cprintf("*");
              cout<<" Enter any key to go back to Main Menu, \'s\' "
                  <<"to see the summery \n\t  or \'0\' to get exit.\n";
```

```cpp
                cout<<"\n\t  Enter Your choice: ";
                cin>>choice;
                switch(choice)
                  {
                    case 'O': {
                                clrscr();
                                cout<<"\n\tThanks for giving a look.";
                                delay(2000);
                                exit(0);
                              }
                              break;
                    case 's': summery(j,copy);
                              break;
                    case 'S': summery(j,copy);
                              break;
                    default : {
                                clrscr();
                                Main.Menu();
                              }
                  }

}

      /* INTRODUCTION TO WORD-GAME & HOW TO PLAY IT  */


void about()
{
 clrscr();
    char choice;
    textcolor(4);
       cout<<"\n\t";
       cprintf("WORD-GAME");            // The Intro
       cout<<"\n\t\b";
       cprintf("_____\n");
```

```cpp
            cout<<"\n\t   This game is for two players, that tests your "
                <<"vocabulary and "
                <<"\n\tstrengthens your command on the words of English "
                <<"language."
                <<"\n\tIt would also improve your grip on this language.";
            cout<<"\n\t   It has a user friendly interface, and trust "
                <<"you would really "
                <<"\n\tlike this Game. It\'d be cool to call it- "
                <<"\"ENGLISH-ANTAKSHRI\"";
        cout<<"\n\n\t";


            cprintf("HOW TO PLAY");            // Rules of the Game
             cout<<"\n\t1)Enter Names of the players and no. of words to be "
                <<"entered."
                <<"\n\t2) Now, one player would enter the first word."
                <<"\n\t3) Then other\'d enter new word starting from last "
                <<"word\'s last letter."
                <<"\n\t4) In this way the loop would continue until players "
                <<"would not enter \n\t"
                <<"   complete no. of words or anyone would not loose the game"
                <<"\n\t5) Every player would get 3 chances to correct his/her "
                <<"entry.";
            cout<<"\n\n\t    So, what are you waiting for! "
                <<"Come-on get your friend \n\t now and let\'s play it!!";
            cprintf("\n_____\n");
        cout<<"\n\t";


       textcolor(14);
            cprintf("*");
            cout<<" Enter any key to go back to Main Menu or "
                <<"\'0\' to get exit.\n";
            cout<<"\t  Enter Your choice: ";
            cin>>choice;
                Main.Choice(choice);
```

```
}
```

```cpp
void credit()
{
  clrscr();
    char choice;
    textcolor(5);
        cout<<"\n\n\t  This game is independently developed by ";
        cprintf("\"Ravi Prakash\"");
        cout<<".\n\n\t";
        cprintf("*");
        cout<<" Enter any key to go back to Main Menu or "
            <<"\'0\' to get exit.";
        cout<<"\n\t  Enter Your choice: ";
        cin>>choice;
            Main.Choice(choice);
}
```

/* TO DISPLAY RECENT 5 WINNERS' NAME */

```cpp
// Here data is displayed in the form of 'STACK'
void winner()
{
  clrscr();
    char choice;
    textcolor(6);
        cout<<"\n\t";
        cprintf("WINNERS");
        cprintf("\n\b\b\b\b\b\b\b\b\b_____");
        cout<<"\n\n\t";
                char ch,winners[25];
                fstream win_data;
                win_data.open("winner.txt",ios::in|ios::out);     // Reading Winners' Data
```

```cpp
            if(!win_data)
            {
                cout<<"File does not exist!!";
                textcolor(14);
                    cout<<"\n\n ";
                    cprintf("*");
                    cout<<" Enter any key to go back to Main Menu or "
                        <<"\'0\' to get exit.";
                    cout<<"\n   Enter Your choice: ";
                    cin>>choice;
                if(choice!='0')
                {
                    clrscr();
                    Main.Menu();
                }
                else
                {
                    clrscr();
                    cout<<"\n\tThanks for giving a look.";
                    delay(2000);
                    exit(0);
                }
            }
            else
            {
                while(!win_data.eof())
                {
                    win_data.getline(winners,25);
                    win_data.get(ch);
                    cout<<"\n\t\t"<<winners;
                }
            }
            win_data.close();
    cout<<"\n\n\t";
```

```cpp
    textcolor(14);
        cprintf("*");
        cout<<" Enter any key to go back to Main Menu or "
            <<"\'0\' to get exit.";
        cout<<"\n\t Enter Your choice: ";
        cin>>choice;
          Main.Choice(choice);
}
```

/* TO SUMMERISE THE GAME'S RESULT */

```cpp
void summery(int j, int copy)
{
clrscr();
    cout<<"\n\n\t";
    textcolor(18);
        cprintf("Words entered respectivally:-");
        cout<<"\n\n";
                for(int i=0;i<j;i++)
                {
                   if(i%2==0)
                   {
                     cout<<"\tBy "<<p1<<": ";
                     puts(word[i]);
                   }
                   else
                   {
                     cout<<"\tBy "<<p2<<": ";
                     puts(word[i]);
                     cout<<"\n";
                   }
                }
        cout<<"\n\t";
    textcolor(15);
```

```cpp
            cprintf("Result:-\n");
    textcolor(9);
                if(i==copy)
                {
                    cprintf("Match Draw!!");
                    goto Place;
                }
                else
                cout<<"\n\t\t";
                cprintf("Winner is: ");
                {
                    if(i%2==0)
                        cprintf(p2);
                    else
                        cprintf(p1);
                }


    Place:                              // The Label for a Sub-Menu
        cout<<"\n\n\t";
        cprintf("*");
        cout<<" Enter any key to go back to Main Menu or "
            <<"\'0\' to get exit.\n";
        char choice;
        cout<<"\t  Enter Your choice: ";
        cin>>choice;
            Main.Choice(choice);
}
```

/* TO UPDATE WINNER"S FILE */

// Here data is store in the form of 'STACK'

```cpp
void win_update(char Winner[25])
{
        char ch,winners[25];
        int counter=1;
```

```cpp
fstream New("winner.txt",ios::noreplace);    // Creating Winners' Data-File
  if(New)
   {
     New<<Winner<<"\n";
     New.close();
   }
   else
   {
      fstream backup("backup.txt",ios::out);   // A File for Backup of Previous Data
      backup<<Winner<<"\n\t";
      fstream old("winner.txt",ios::in);        // Copying Data from Per-Existing File
      while(!old.eof())
      {
        old.get(winners,25);
        old.get(ch);
        {
           counter++;
           backup<<winners<<"\n";
        }
        if(counter==5)
            break;
    }
    old.close();
    backup.close();
       remove("winner.txt");
       rename("backup.txt","winner.txt");    // Updating Winners' Data-File

   }
}
```

/* THE END */

OUTPUT

1.   WELCOME SCREEN

```
        WELCOME TO WORD-GAME
        _____

        MAIN - MENU


        Enter any one of the following:

        '1' to PLAY
        '2' to know about the WORD-GAME
        '3' for Credit
        '4' for last 5 Winners
        '5' to exit
                     _____


        * Please do not input any key other then 1, 2, 3, 4 or 5 *


          Enter your choice: _
```

2.   ABOUT THE GAME

```
        WORD-GAME
        _____

            This game is for two players, that tests your vocabulary and
        strengthens your command on the words of English language.
        It would also improve your grip on this language.
            It has a user friendly interface, and trust you would really
        like this Game. It'd be cool to call it- "ENGLISH-ANTAKSHRI"

        HOW TO PLAY
        1) Enter Names of the players and no. of words to be entered.
        2) Now, one player would enter the first word.
        3) Then other'd enter new word starting from last word's last letter.
        4) In this way the loop would continue until players would not enter
           complete no. of words or anyone would not loose the game
        5) Every player would get 3 chances to correct his/her entry.

            So, what are you waiting for! Come-on get your friend
        now and let's play it!!
                             _____

        * Enter any key to go back to Main Menu or '0' to get exit.
          Enter Your choice:
```

4.   GAME

```
Let's Begin:-

Name of first player: Ravi
Name of second player: Priyam
Number of words that each player'd enter (max 40): 1

                        _____


        Ravi! Enter first word: rat


        Priyam! Enter next word starting with 't',
        (within 30 seconds) :                   toy

    _____


        How great players you are! The match is draw!!!


    * Enter any key to go back to Main Menu, 's' to see the summery
      or '0' to get exit.

        Enter Your choice: _
```

5.   SUMMERY

```
        Words entered respectivally:-

        By Ravi Prakash: rat
        By Priyam: toy

        By Ravi Prakash: yes

        Result:-

                Winner is: Ravi Prakash

    * Enter any key to go back to Main Menu or '0' to get exit.
        Enter Your choice: _
```

6.   WINNERS

```
WINNERS
_____


          Ravi Prakash
          Sudheer
          Jhon
          Priyam
          Anna

 * Enter any key to go back to Main Menu or '0' to get exit.
  Enter Your choice:
```