PROJECT

REPORT - GUESS THE COUNTRY

Chandigarh College of Engg. & Tech.

CCET

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📋 ABSTRACT:

This report outlines the design and development of a computer software to guess a word. The program was written in C++ programming language.

The design and ensuing program are modular in nature and make maximum use of abstract data types and of code re-useability. Particular attention is paid to the concepts of object-oriented programming.

The report includes the program principle and scope for future development, conclusion, as well as the whole of the code that was written.

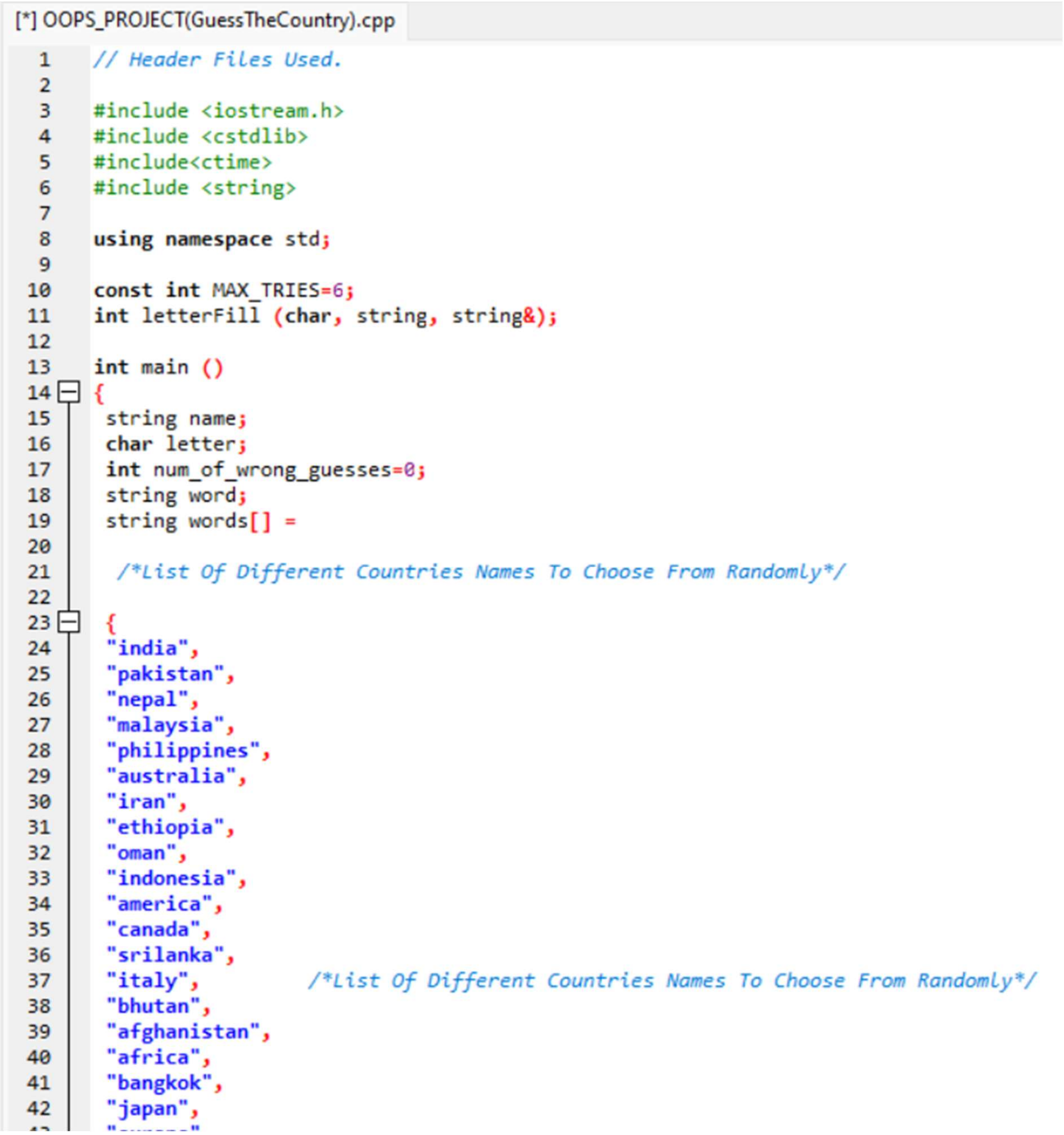
BASIC PRINCIPLE OF THE PROGRAM:

This game is based upon the simple and very fun principle of the hangman game. Hangman is **a guessing game for two or more players**. One player thinks of a word, phrase or sentence and the other(s) tries to guess it by suggesting letters within a certain number of guesses. Originally a Paper-and-pencil game, there are now electronic versions.

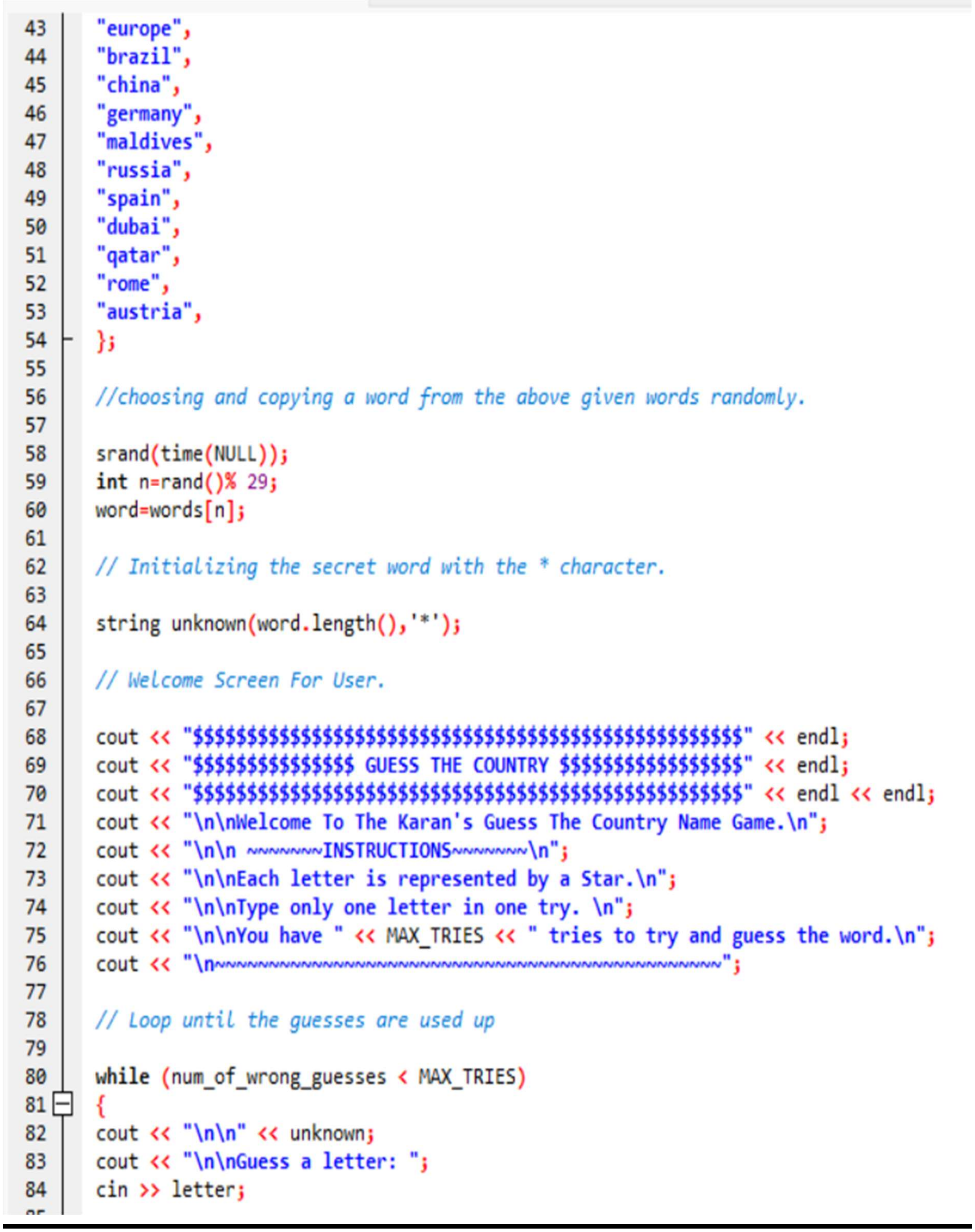
The word to guess is represented by a row of dashes representing each letter of the word. Rules may permit or forbid proper nouns, such as names, places, brands, or slang. If the guessing player suggests a letter which occurs in the word, the other player writes it in all its correct positions. If the suggested letter does not occur in the word, the other player draws one element of a hanged stick figure as a tally mark.

The player guessing the word may, at any time, attempt to guess the whole word. If the word is correct, the game is over and the guesser wins. Otherwise, the other player may choose to penalize the guesser by adding an element to the diagram. On the other hand, if the guesser makes enough incorrect guesses to allow the other player to complete the diagram, the guesser loses. However, the guesser can also win by guessing all the letters that appear in the word, thereby completing the word, before the diagram is completed.

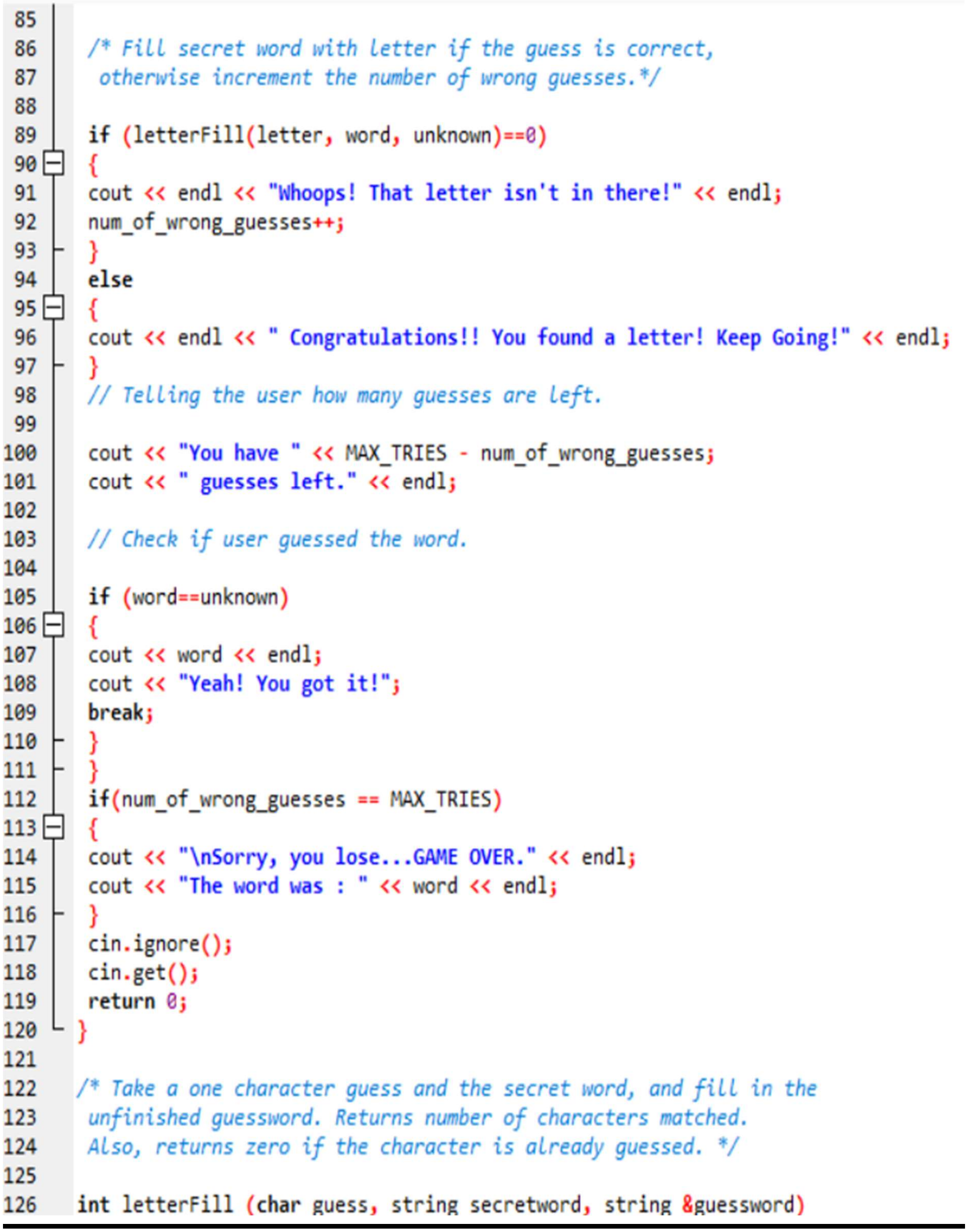
SOURCE CODE:



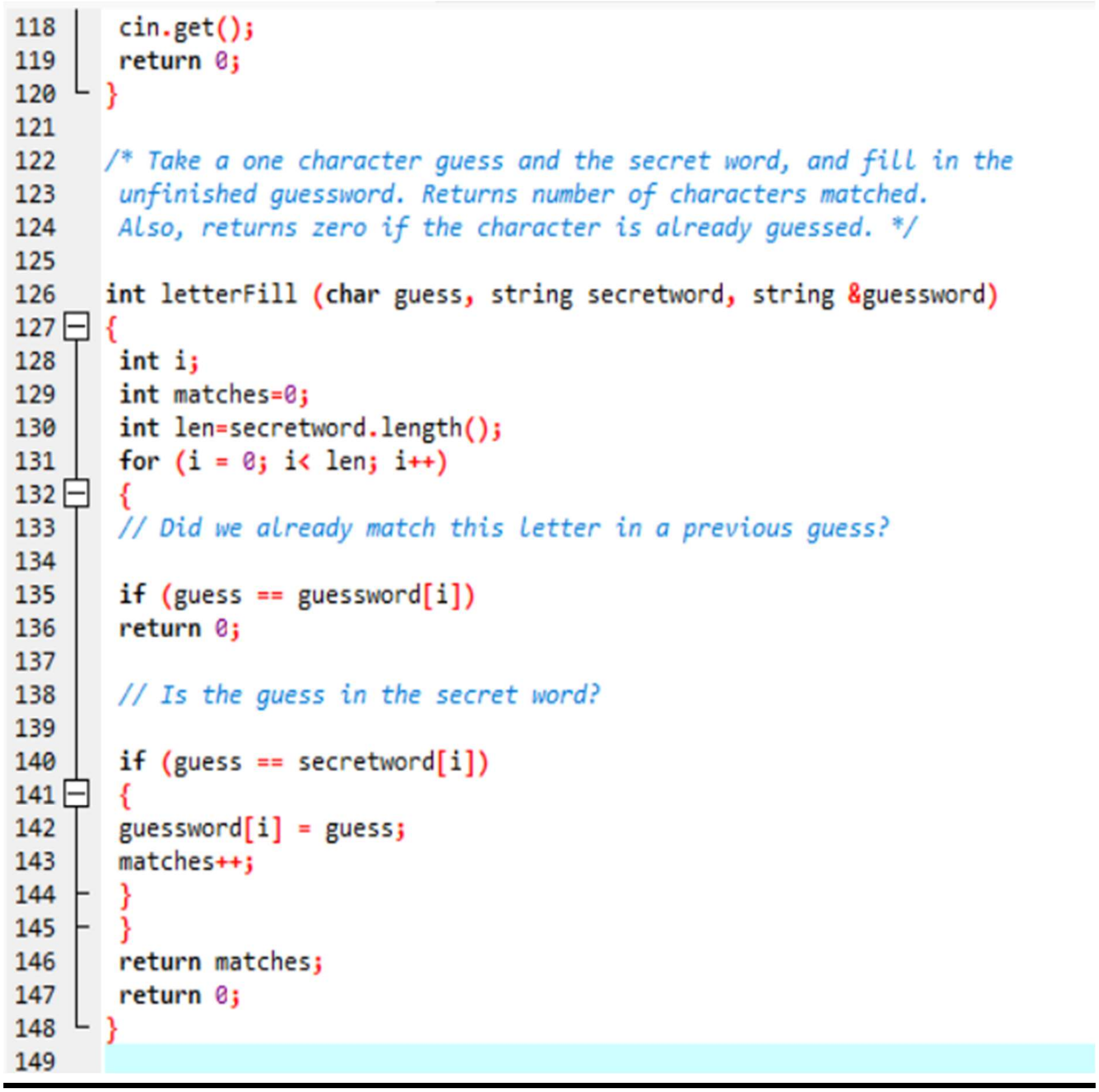
```
// Header Files Used.

#include <iostream.h>
#include <cstdlib>
#include<ctime>
#include <string>

using namespace std;

const int MAX_TRIES=6;
int letterFill (char, string, string&);

int main ()
{
 string name;
 char letter;
 int num_of_wrong_guesses=0;
 string word;
 string words[] =

  /*List Of Different Countries Names To Choose From Randomly*/

 {
 "india",
 "pakistan",
 "nepal",
 "malaysia",
 "philippines",
 "australia",
 "iran",
 "ethiopia",
 "oman",
 "indonesia",
 "america",
 "canada",
 "srilanka",
 "italy",         /*List Of Different Countries Names To Choose From Randomly*/
 "bhutan",
 "afghanistan",
 "africa",
 "bangkok",
 "japan",
```



```
"europe",
"brazil",
"china",
"germany",
"maldives",
"russia",
"spain",
"dubai",
"qatar",
"rome",
"austria",
};

//choosing and copying a word from the above given words randomly.

srand(time(NULL));
int n=rand()% 29;
word=words[n];

// Initializing the secret word with the * character.

string unknown(word.length(),'*');

// Welcome Screen For User.

cout << "$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$" << endl;
cout << "$$$$$$$$$$$$$$$ GUESS THE COUNTRY $$$$$$$$$$$$$$$$$" << endl;
cout << "$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$" << endl << endl;
cout << "\n\nWelcome To The Karan's Guess The Country Name Game.\n";
cout << "\n\n ~~~~~~~~INSTRUCTIONS~~~~~~~~\n";
cout << "\n\nEach letter is represented by a Star.\n";
cout << "\n\nType only one letter in one try. \n";
cout << "\n\nYou have " << MAX_TRIES << " tries to try and guess the word.\n";
cout << "\n~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~";

// Loop until the guesses are used up

while (num_of_wrong_guesses < MAX_TRIES)
{
cout << "\n\n" << unknown;
cout << "\n\nGuess a letter: ";
cin >> letter;
```



```
 
 /* Fill secret word with letter if the guess is correct,
  otherwise increment the number of wrong guesses.*/

 if (letterFill(letter, word, unknown)==0)
 {
 cout << endl << "Whoops! That letter isn't in there!" << endl;
 num_of_wrong_guesses++;
 }
 else
 {
 cout << endl << " Congratulations!! You found a letter! Keep Going!" << endl;
 }
 // Telling the user how many guesses are left.

 cout << "You have " << MAX_TRIES - num_of_wrong_guesses;
 cout << " guesses left." << endl;

 // Check if user guessed the word.

 if (word==unknown)
 {
 cout << word << endl;
 cout << "Yeah! You got it!";
 break;
 }
 }
 if(num_of_wrong_guesses == MAX_TRIES)
 {
 cout << "\nSorry, you lose...GAME OVER." << endl;
 cout << "The word was : " << word << endl;
 }
 cin.ignore();
 cin.get();
 return 0;
}

/* Take a one character guess and the secret word, and fill in the
 unfinished guessword. Returns number of characters matched.
 Also, returns zero if the character is already guessed. */

int letterFill (char guess, string secretword, string &guessword)
```



```
 cin.get();
 return 0;
}

/* Take a one character guess and the secret word, and fill in the
 unfinished guessword. Returns number of characters matched.
 Also, returns zero if the character is already guessed. */

int letterFill (char guess, string secretword, string &guessword)
{
 int i;
 int matches=0;
 int len=secretword.length();
 for (i = 0; i< len; i++)
 {
 // Did we already match this letter in a previous guess?

 if (guess == guessword[i])
 return 0;

 // Is the guess in the secret word?

 if (guess == secretword[i])
 {
 guessword[i] = guess;
 matches++;
 }
 }
 return matches;
 return 0;
}

```

FUTURE DEVELOPMENTS:

- The number of players can be increased and it can be developed as a multiplayer game.
- The names in the list from where the compiler randomly selects a word can be increased/decreased/changed as per the user requirements.
- The user interface of the game can be improved by adding graphics.

CONCLUSION:

A summary of the project covers all the major aspects, including the idea, intention, and functionality of the software. It also has a subsection that includes the user manual.

This computer software program is made to increase a person's word guessing capabilities. It is very useful in the case of small kids and teenagers. it's a fun, interesting and a very interactive kind of game.

USER MANUAL:

The setup process for first-time users is easy, just read the given instructions and get started.

1. Enter a single letter.
2. If the letter entered is correct than it will be displayed at it's position in the word.
3. Otherwise, your one chance will be deducted.
4. If max tries become equal to the max wrong tries than you lose and the game gets over.
5. Else, if you guessed all the letters of the word than you win the game.