

***SPELL CHECKER***

**PROJECT REPORT**

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1. INTRODUCTION

Computers have taken industries and businesses to a worldwide level. They are used at home for online education, entertainment, in offices, hospitals, private firms, NGOs, Software house, Government Sector Etc. The computer is a very vast field in every sector and every aspect of life. Likewise, a programming language is any set of rules that converts strings, or graphical program elements in the case of visual programming languages, to various kinds of machine coding outputs. Programming languages are one kind of computer language, and are used in computer programming to implement algorithms. We created a program or software tool called **Spell Checker** for correcting spelling.

* 1. DESCRIPTION

The software that checks and correct spelling errors in emails, texts, words, sentences and more is called spell check. Spell Checker is a simple kind of tool or program for correcting spelling. Spell check identifies and corrects misspelled words. It also allows you to search a document yourself for words you know you have misspelled.

* 1. IMPORTANCE

**Accuracy**: One main benefit of using a spell checker is its accuracy. Running a spell checker ensures that the number of typos in your document decreases significantly. With the ease of typing on computers, people are typically able to write more text faster than they would by hand or on a typewriter. This means that even if you're a star speller, mistakes can still creep into your document. No matter what your spelling ability, running spell check on any digital document is essential to ensure accuracy and professionalism.

**Time Saver**: While it is always advisable to have a real person check over your document before it is sent to a client or professor, spell checkers do some of the grunt work, correcting typos with the same accuracy as a human counterpart. That leaves human editors free to work on the parts of your document that a spell checker cannot -- content clarity and proper writing technique.

1. MODULES IN THE PROJECT
   1. Modules
   2. Software Used

**Microsoft Visual Studio** (2019) is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps. Visual studio uses Microsoft development platforms such as Window API, Window Forms, Window Presentation Foundation and Window Silverlight. It can produce both native code and managed code.

* 1. Programming Language

**C++** is a statically typed, compiled, general-purpose, case-sensitive, free-form programming language that supports procedural, object-oriented, and generic programming.

**C++** is regarded as a middle-level language, as it comprises a combination of both high-level and low-level features.

**Standard Libraries:** Standard C++ consists of three parts-

The core language giving all the building blocks including variables, data types and literals, etc.

The C++ Standard library giving a rich set of functions manipulating files, strings, etc.

The Standard Template Library (STL) giving a rich set of methods manipulating data structures, etc.

1. REQUIREMENTS SPECIFICATION

A software requirements specification (**SRS**) is a document that captures regarding how the framework is relied upon to perform. It is normally closed down toward the finish of prerequisites designing stage.

* 1. Hardware Requirements
* RAM: 512 MB or above
* Processor: Pentium 4 or above
* Hard Disk: 1 GB or above
  1. Software Requirements
* Visual Studio C++ (IDE)
* Microsoft C++
* Windows 10
* Microsoft Word

1. ANALYSIS

Project analysis basically entails the creation, management, and disbursement of reports that are related to a project. It also incorporates several other aspects such as the maintenance of project assets, monitoring and evaluation of the project, and drafting of the relevant reports.

* 1. Existing System

1. To reduce time for the organization.
2. Increase efficiency and accuracy of the system.
3. To reduce pressure on the labour and relieving man power from repetitive and a dull job.
4. To make retrieval of information faster.
5. To make system more feasible.
6. To reduce large amount of paper work.
7. To make system reliable and avoid any ambiguity.
8. Reduce cost factor of the system.
   1. Proposed System
9. SYSTEM IMPLEMENTATION
   1. Introduction
   2. Code

#include <iostream>

#include<fstream>

#include<string>

using namespace std;

struct node {

string words;

struct node\* next;

};

struct node\* head;

string arr[10];

int fr = -1, re = -1, cor = 0, incor = 0;

void add(string history) {

if (re == -1)

{

re++;

fr++;

arr[fr] = history;

}

else if (fr < 9) {

fr++;

arr[fr] = history;

}

else if (fr >= 9) {

while (re < 9) {

arr[re] = arr[re + 1];

re++;

}

arr[re] = history;

re = 0;

}

}

void insertEnd(string data) {

node\* new\_node = new node;

new\_node->words = data;

new\_node->next = NULL;

if (head == NULL)

{

head = new\_node;

}

else

{

node\* temp = head;

while (temp->next != NULL) {

temp = temp->next;

}

temp->next = new\_node;

}

}

void displayLinkedList() {

if (head == NULL)

{

cout << "Linked List is empty\n";

}

else

{

node\* temp = head;

while (temp->next != NULL) {

cout << temp->words << endl;

temp = temp->next;

}

}

}

int search(string data) {

int flags = -1;

node\* temp = head;

while (temp->next != NULL) {

if (data == temp->words)

{

flags = 1;

break;

}

else if (data != temp->words) {

flags = 0;

}

temp = temp->next;

}

return flags;

}

void read() {

ifstream fin;

string line;

// by default open mode = ios::in mode

fin.open("F:\\Visual Studio SOURCE\\Spell Checker\\words.txt");

// Execute a loop until EOF (End of File)

while (fin) {

// Read a Line from File

getline(fin, line);

// Print line in Console

insertEnd(line);

}

// Close the file

fin.close();

}

int main() {

read();

cout << "~ ~ ~ ~ ~ ~ Spell Checker ~ ~ ~ ~ ~ ~\n";

char x = 0;

while (x != 1) {

//MENU

cout << "\t=====MENU=====" << endl;

cout << "Press 1: to Check Spelling." << endl;

cout << "Press 2: to Check History." << endl;

cout << "Press 3: to Exit the Program." << endl;

int slt;

cin >> slt;

switch (slt) {

case 1: {

string word;

cout << "\nEnter word to check(Enter in lower case letters): " << endl;

cin >> word;

add(word);

if (search(word) == 1) {

cout << "Your Spelling is Correct" << endl;

cor++;

}

else {

cout << "Your Spelling is Incorrect" << endl;

incor++;

}

break;

}

case 2: {

if (re == -1)

cout << "History is empty" << endl;

else

for (int i = 0; i < 10; i++)

{

cout << arr[i] << endl;

}

cout << "Total correct words were: " << cor << endl;

cout << "Total incorrect words were: " << incor << endl;

break;

}

case 3:

return 0;

default:

cout << "Invalid Input!";

}

cout << "\nDo you want to continue? (Y or N) \n";

cin >> x;

if (x == 'N' || x == 'n')

x = 1;

}

}

1. PROJECT FEATURES
2. It reduces the time and manpower required for management and ensure that the number of types in your document decreases significantly.
3. It reduces the paper work in existing system, because with the ease of typing on computer s, people are typically able to write more text faster than they would by hand or on a typewriter.
4. Like **Grammarly** software this program is very human to used.
5. This system is very secure, user-friendly, and reliable.