📘 Welcome to the Typing Speed Test in C++

- 🎯 Project Title: Typing Speed Test (User-Custom Sentence)
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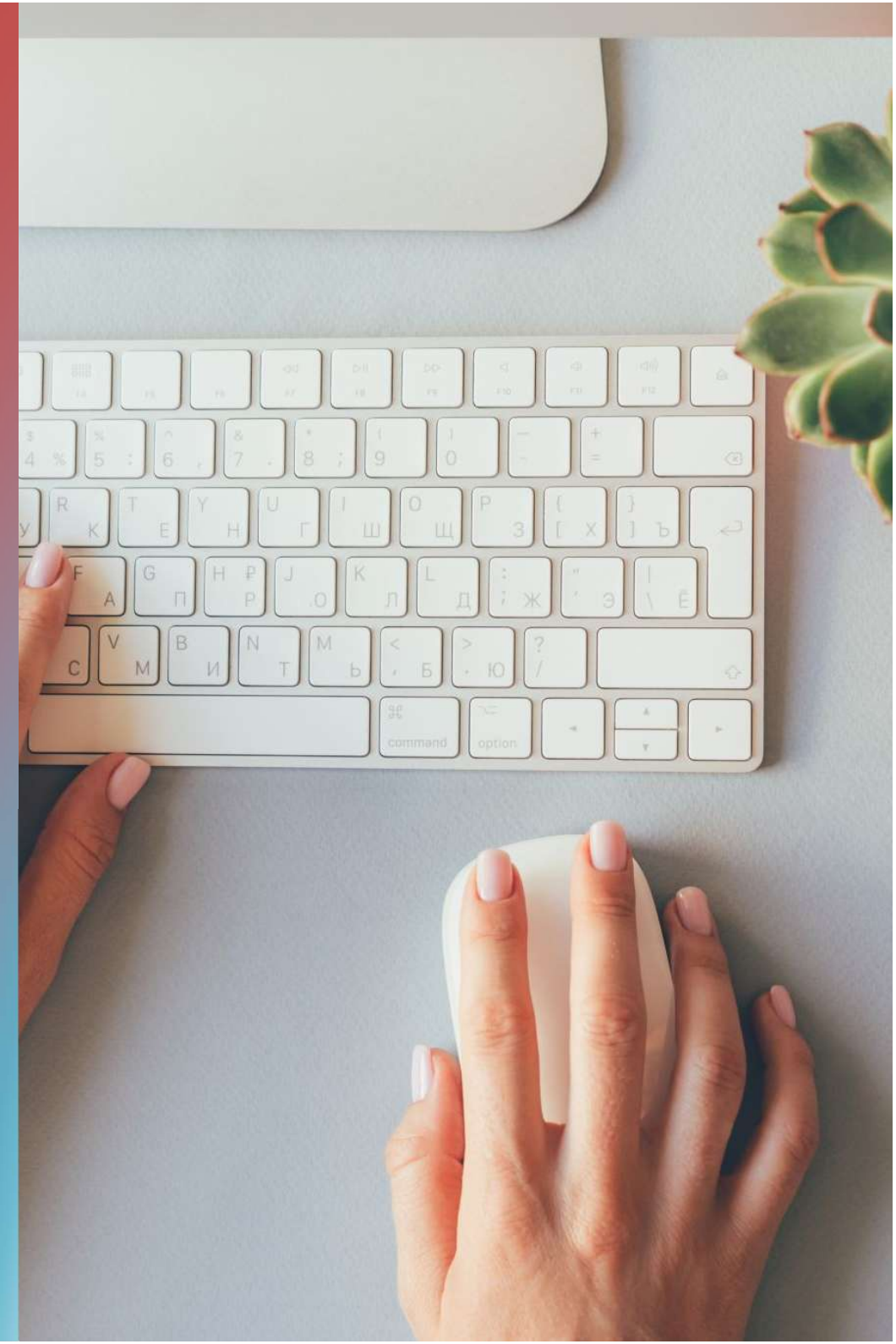
Introduction

- A simple console-based typing speed tester using C++

- Users type a sentence of their choice, then retype it

- The program measures WPM and accuracy

- Countdown timer and repeat options included.



🎯Objective

- - Create a typing practice app using C++
- - Let users type any sentence they want
- - Measure how fast and how accurately they can type
- - Provide immediate feedback (WPM and accuracy)
- - Allow multiple attempts with flexibility to try the same or a new sentence.

💡 Key Features

- - User enters their own sentence
- - Countdown timer before typing begins
- - Clock-based typing time tracking
- - Words Per Minute (WPM) calculation
- - Accuracy percentage calculated based on character match
- - Feedback provided based on typing speed
- - Loop logic for repeated practice
- - Option to try same or new sentence

Tools & Concepts Used

- - Language: C++
- - IDE: Dev C++ / Code::Blocks
- - Key Concepts:
- - String input and comparison
- - Timer using `clock()`
- - Loops and conditionals
- - User-defined repetition and control flow

Code Screenshots

Start here | Typing test.cpp

```cpp
#include <iostream>
#include <string>
#include <ctime>
#include <thread>
using namespace std;

int main() {
    string original, typed;
    char choice;

    cout << "Typing Speed Test\n";

    do {
        cout << "\nEnter a sentence you'd like to practice:\n";
        getline(cin, original);

        while (true) {
            cout << "\nGet ready to type the sentence again:\n";
            cout << "\"" << original << "\"\n";

            cout << "\nStarting in:\n";
            for (int i = 3; i > 0; i--) {
                cout << i << "...\n";
                this_thread::sleep_for(chrono::seconds(1));
            }

            cout << "Start typing now:\n";

            clock_t start = clock();
            getline(cin, typed);
            clock_t end = clock();

            double timeTaken = double(end - start) / CLOCKS_PER_SEC;

            int wordCount = 1;
            for (int i = 0; i < typed.length(); i++) {
                if (typed[i] == ' ')
                    wordCount++;
            }
```

```cpp
            int correctChars = 0;
            int length = min(original.length(), typed.length());
            for (int i = 0; i < length; i++) {
                if (original[i] == typed[i])
                    correctChars++;
            }

            float accuracy = (correctChars * 100.0) / original.length();
            float wpm = (wordCount / timeTaken) * 60;

            cout << "\n--- Result ---\n";
            cout << "Time Taken      : " << timeTaken << " seconds\n";
            cout << "Words Typed     : " << wordCount << "\n";
            cout << "Typing Speed    : " << wpm << " WPM\n";
            cout << "Accuracy        : " << accuracy << "%\n";

            if (wpm >= 40)
                cout << "Feedback        : Excellent speed!\n";
            else if (wpm >= 25)
                cout << "Feedback        : Good effort!\n";
            else
                cout << "Feedback        : Keep practicing!\n";

            cout << "\nDo you want to:\n";
            cout << "1. Try the same sentence again\n";
            cout << "2. Enter a new sentence\n";
            cout << "3. Exit\n";
            cout << "Enter your choice (1/2/3): ";
            int userChoice;
            cin >> userChoice;
            cin.ignore();

            if (userChoice == 1) {
                continue;
            } else if (userChoice == 2) {
                break;
            } else {
                cout << "\nThanks for using the Typing Speed Test!\n";
```

```cpp
                return 0;
            }
        }

    } while (true);
}
```

📊 Output Window (Typing Results)

```
Typing Speed Test

Enter a sentence you'd like to practice:
I am learning c++ to improve mt coding skills

Get ready to type the sentence again:
"I am learning c++ to improve mt coding skills"

Starting in:
3...
2...
1...
Start typing now:
 i am learning c++ to improve my coding skills

--- Result ---
Time Taken     : 14.172 seconds
Words Typed    : 10
Typing Speed   : 42.337 WPM
Accuracy       : 4.44444%
Feedback       : Excellent speed!

Do you want to:
1. Try the same sentence again
2. Enter a new sentence
3. Exit
Enter your choice (1/2/3): 2

Enter a sentence you'd like to practice:
today i solved a few problems realted to data structures and alogrithm
```

```
Enter a sentence you'd like to practice:
today i solved a few problems realted to data structures and alogrithm

Get ready to type the sentence again:
"today i solved a few problems realted to data structures and alogrithm"

Starting in:
3...
2...
1...
Start typing now:
today i solved a few problems related to data structures and alorithm

--- Result ---
Time Taken     : 43.343 seconds
Words Typed    : 12
Typing Speed   : 16.6117 WPM
Accuracy       : 88.5714%
Feedback       : Keep practicing!

Do you want to:
1. Try the same sentence again
2. Enter a new sentence
3. Exit
Enter your choice (1/2/3): 2

Enter a sentence you'd like to practice:
 today i solved a few peroblems related to data structures and alorithms

Get ready to type the sentence again:
" today i solved a few peroblems related to data structures and alorithms"
```

🎓 Conclusion

- Developed a fully working typing trainer in C++.

- Practiced concepts like strings, loops, timers, accuracy logic.

- Gained confidence in designing interactive console apps.

- Applied logical structure and user flow handling.

📘 What I Learned

 - How to build real-time timer-based applications

 - How to handle string comparison and accuracy percentage

 - Creating user-defined loop-based control flows

 - Practical usage of `clock()`, conditionals, and user input.

🚀 Future Scope & Improvements

- - Add difficulty levels with longer paragraphs.
- - Include a leaderboard or scoreboard feature.
- - Export result to a file for performance tracking.
- - Integrate sound effects or GUI in future (SFML or Qt).
- - Show live typing accuracy or highlight wrong characters in future version.

- **Thank you for reviewing my project!** 🙏 😊
- ~ Isneha Varshney 💻 ✨