Project Report

TYPING SPEED TEST

Arya College of Engineering & IT

Title Page

Project Title: Typing Speed Test (C++ - OOP Based Project)

Submitted By:

- Mausam

- Navya

- Manvi

- Nikita Rathor

- Nikita

Department of Computer Science & Engineering

Arya College of Engineering & IT

Certificate

This is to certify that the project report titled “Typing Speed Test” submitted by Mausam, Navya, Manvi, Nikita Rathor, and Nikita of Arya College of Engineering & IT has been completed under the guidance of the Computer Science & Engineering Department.

The project is submitted in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology (B.Tech.) in Computer Science & Engineering.

Project Guide: _____

Head of Department: _____

Date: _____

Abstract

The Typing Speed Test is a software application developed in C++ using Object-Oriented Programming (OOP) principles. The purpose of this project is to help users evaluate and improve their typing skills by measuring Words Per Minute (WPM), accuracy, errors, and total time taken. The software also provides difficulty levels, multilingual typing options, and a history tracking feature. The project demonstrates the practical use of OOP concepts such as classes, objects, inheritance, file handling, and modular programming.

Introduction

Typing is a fundamental skill in modern computing. With increasing dependency on digital communication, typing speed and accuracy have become essential competencies.

This project aims to build a Typing Speed Test System that allows users to test, practice, and evaluate their typing performance. It uses C++ OOP concepts to create modular, maintainable, and scalable software. The system supports multiple difficulty levels, typing languages, and stores historical performance data.

System Design

UML Diagrams

Use Case Diagram

Actors: User

Use Cases:

- Start Test
- Select Difficulty
- Select Language
- Take Typing Test
- View Results
- View History

Class Diagram

(User, Test, Result, History classes description)

Implementation

The project is implemented using C++ OOP concepts such as:

1. Classes & Objects
2. Inheritance
3. File Handling
4. Encapsulation
5. Polymorphism

Testing

Tested using:

1. Unit Testing

2. Integration Testing

3. Functional Testing

4. File Handling Test

Conclusion

The Typing Speed Test project successfully demonstrates the application of Object-Oriented Programming in C++. The software provides an interactive and user-friendly typing evaluation system with multiple features such as difficulty levels, accuracy calculation, and history tracking. This project enhances practical understanding of OOP, file handling, and modular design.

References

1. Bjarne Stroustrup — The C++ Programming Language

2. Herbert Schildt — C++: The Complete Reference

3. cppreference.com

4. GeeksforGeeks – OOPs & C++ tutorials