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Report On

**Typing Test Simulator**

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**Letter Of Certificate**

This is to certify that the project report entitled “Typing Test Simulator”, is the work who helped us in our project under the guidance and supervision.

To the best of my knowledge and belief, this work embodies the work of candidates themselves, ha duly been completed, fulfills the requirement of the ordinance relating to the bachelor degree of the university and is up to the standard in respect of content, presentation and language for begins referred to the examiner.

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Signature of Invigilator

**Acknowledgement**

Working in good environment and motivation enhance the quality of the work and we get it from our college through our ‘Typing Test Simulator’ project.

We have done research through various sources like old projects, internet, etc. and through the good expert also.

We are thankful to our teachers who have helped in our projects.

Also, we thank all the people who had directly or indirectly help us to complete our project.

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# Introduction

## Python

Python is a popular programming language. It was created by Guido van Rossum, and released in 1991. Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed. It is used for:

* Web development(server-side),
* Software development,
* Mathematics,
* System scripting

## Why Python?

* Python has syntax that allows developers to write programs with fewer lines than some other programming languages.
* It runs on the interpreter system i.e. the code can be executed as soon as it is written. Thus, prototyping can be very quick.
* It can be treated in a procedural way, an object oriented or a functional way
* It also has simple syntax similar to the English language.

## What Python can do?

* Python can be used on a server to create web applications.
* Python can be used for rapid prototyping, or for production-ready software development.
* Python can be used to handle big data and perform complex mathematics.
* Python can be connect to database systems. It can also read and modify files.

# Typing

Typing is the process of writing or inputting text by pressing keys on a typewriter, computer keyboard, cell phone or calculator. It can be distinguished from other means of text input such as handwriting or speech recognition. Text can be in the form of letters, numbers and other symbols.

It is presented method for selecting the words that are presented in a typing tutor software program. Words are selected taking into account the fingers that are used to write them.

Using coding scheme, each word will have a formula that results from the fingers used to write the word on the keyboard. Using modified binary search algorithm, all the words that are written using same fingers, can be presented to the typing tutor application

It is used extensively when assessing candidates for data entry,  typist, and transcriptionist jobs

# Accuracy

Typing accuracy is defined as the percentage of correct entries out of the total entries typed. Accuracy in typing involves typing without errors and omissions. Accuracy is important than typing speed because no matter how much our speed is low, we can duplicate our speed as long as you can control our accuracy. It is interesting to note that all errors, whether corrected or not, should be counted in the accuracy calculation, unlike the WPM calculation. This is because the calculation is more live than typing speed and literally describes the likelihood that the next character will be typed correctly, regardless of whether it will be corrected or not.

# Word Per Minute

Word per minute(wpm) is a measure of speed of how fast a person can type. It is a rate of speed of words typed in a minute. WPM test not only calculates your typing speed per minute but also focuses on to the let you improve with the accuracy factor. We will also know the number of words you typed in minute with the accuracy percentile. The result of the test is based on two factors: typing speed and accuracy.

Formula:

Wps=Total no of words

Total Time taken( in sec)

Wpm=Total no of characters typed \* 60

Total time taken(in sec)

# Characters Per Minute(CPM)s

Characters per minute is calculated as the number of characters a typist typed per minute. It is a formula to identify the typing speed of a typist. English Typing Test counts all typed characters and divides it by the time in terms of minutes to get the CPM. Character Per Minute literally means how much characters you typed per minute.

Formula:

Cps=Total no of characters typed

Total time taken (in sec)

Cpm=Total no of characters typed \* 60

Total time taken (in sec)

# What happens when your typing is faster?

* **Save Time**- Tying is something most of us will have to do a lot of in our jobs. It stands to reason that the faster you can type, the more time you will save.
* **Be more Productive**- Everyone is looking for ways to be more productive both in the workplace and at home, an typing faster is simply the way to get more done.
* **Improve your posture**- Posture may not be the first thing you think about when you decide to increase your typing speed, but it can certainly benefit.
* **Improve your focus**- Another benefit of learning to type faster is that you will not have to look at the keyboard and think about where your fingers are going. Once you are typing fast, you will be able to look directly at the screen, and your fingers will type without you even thinking about the movements.
* **Better Accuracy**- Learning to touch type is not just about learning how to type faster, its also about learning how to type with greater accuracy
* **Find more opportunities**- Tying is such a useful skill that boost productivity in the workplace, it can help you to find more and better opportunities when it comes to getting a job.

# Why Typing test have been used in hiring process?

* Front line agent need keyboarding skills and typing speed test to measure word per minute,
* To type information into the customer relationship management system,
* To measure their ability to input the information with accuracy,
* It is simple to administer.

# About Project

Tying test simulator is an interactive interface and user-friendly design view. The purpose of this project is to help you fasten your typing skill and help focus on your hand position in the keyboard. Our project is based on a simple python application that contains the basic function and common coding structure for developing simple system.

# Libraries Used

* **tkinter**- It is a python binding to the TK GUI toolkit. It is the standard python interface to the TK GUI toolkit, and is Python de facto standard GUI.
* **time**- It allows us to handle various operation regarding time, its conversions and representations which finds its use in various application in life.
* **threading**- It allows us to run two different codes on simultaneously on a same time.
* **random**- It can be used to make random numbers

# Source Code

**Output**

# Conclusion

In this paper it was presented a method for selecting the words that are presented in a typing tutor software program. The words are selected taking into account the fingers that are used to write them. The typing tutor is served with different words that are written using the same fingers. Using a coding scheme, each word will have a formula that results from the fingers used to write the word on the keyboard. The formula contains only digits 1 to 8, each being uniquely allocated to a finger used to write a certain letter. Each digit appears only once even if there are more than one letters in the word, that are written with the same finger. And also the digits are sorted in ascending order. Using a modified binary search algorithm, all the words that are written using same fingers, can be presented to the typing tutor application.