Mini-Project Synopsis

Advanced Programming Lab (ICT 3166)

SPEED TYPING TEST

Team Members:

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Introduction

Taking a typing speed text establishes our average typing speed (WPM) and accuracy which is important for us to know so that we can improve with practice. Ever since computers became household items, there's been an emphasis on typing speed.

Typing is now an essential part of almost every job out there. It helps us to complete our work faster and more efficiently, be comfortable with the computer and to communicate with others.

There are jobs where employers look out for such typists who know their way around the keyboard and have a knack for faster typing instead of someone who has to actively search for a key on the keyboard. Therefore, the key is to practice every day so that it becomes comfortable.

Touch typing and enhancing your typing speed is one of the main factors to be more productive, especially in administration and technology fields, which may require a lot of intense typing.

Speed always need not be the most important thing to get our work done; there is another factor – accuracy.

The program we have prepared helps us with the above and also stores the results to check on our regular progress.

Literature Survey

Taking a typing speed test establishes your average typing speed (WPM) and accuracy.

Which is an important baseline to know so u can increase speed and improve accuracy

With regular practise.

Most jobs do not explicitly certain typing speed ,but that because basic typing skills taken as a given,thus u should aim for a typing speed of atleast 40WPM To keep up a standard level of efficiency at work. For some professions ,the standars are higher.

After deciding on the idea of our project we referred to different typing speed test applications

- https://www.ratatype.com/typing-test/test/
- https://www.speedtypingonline.com/typing-test

Methodology and Implementation

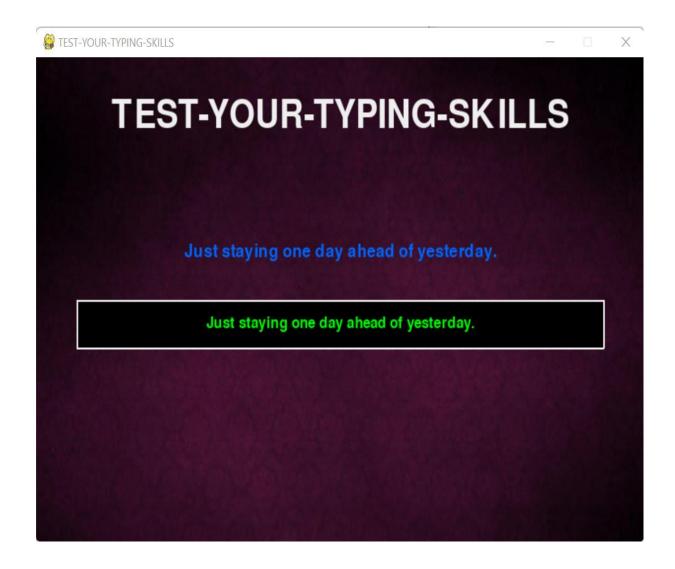
Implementing the above idea, we have performed the following:

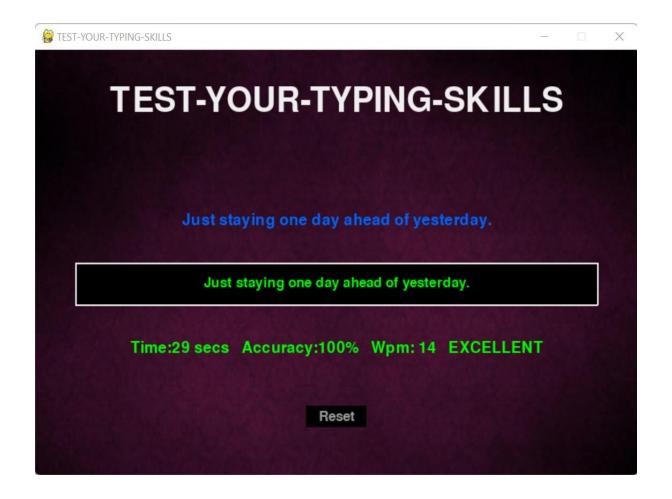
- Imported packages such as pygame, sys, time and random which are the most important for our project.
 - pygame is a cross platform set of python modules. It includes computer graphics and sound libraries designed to be used with the Python programming language.
 - sys module provides functions and variables which are used to manipulate different parts of the Python Runtime Environment.
 - time module provides us the required time functions for calculating the time taken to type and to calculate WPM.
 - random module is used to randomly generate sentences from 'sentences.txt' file for our program.
- We have used various methods from *pygame* such as
 - font.render : to create surface object from string
 - text.get_rect : to create rectangular object on the screen
 - pygame.display.update(): draws surface object updated to the screen
 - pygame.image.load() : draws the image to the screen
 - pygame.transform.scale(): transforms the screen to the image and dimensions which are passed as an argument
 - pygame.time.Clock() : to create a clock object which can be used to keep track of time
- Methods used from *random*
 - random.choice(): randomly selects sentences from 'sentences.txt'
- Methods used from *time*
 - time.time(): returns the current time
 - time.sleep(): used to add delay execution to the program
- The functions created in our project are
 - __init__(self): to initialize components and set background image on screen
 - draw_text : to create the text and text box on screen
 - get sentence : to read sentences from 'sentences.txt'
 - show_results: calculates time taken, accuracy and words per minute and displays results on screen and also stores into file 'results.txt'
 - reset_game : resets the program
 - run : runs the program shown below

Results

The expected result is the display of time taken to type in seconds, words typed per minute (WPM) and the accuracy on the screen. It also stores the output of each turn in a separate text document named 'results.txt' in the form of, for example

Time:29 secs Accuracy:100% Wpm: 14 EXCELLENT





Conclusion

The goal of the project was to help people to try out their typing speed. If you can type faster while remaining accurate, you'll save a lot of time. For example, if your typing speed is increased from 30 to 60 words per minute (wpm), you'll halve the time it takes to do the same amount of work.