K. J. Somaiya College of Engineering, Mumbai-77

(Autonomous College Affiliated to University of Mumbai)

Batch: A1 **Roll No.: 1911005, 1911006, 1911010** **Experiment / assignment / tutorial No.** **Grade: AA / AB / BB / BC / CC / CD /DD** **Signature of the Staff In-charge with date**

Title: Python Application Development

AIM : To develop a python application for a real world problem

Expected OUTCOME of Experiment:

CO :

Books/ Journals/ Websites referred:

1.

Github Link of Project files :

https://github.com/Mayank7832/Typing-Speed-Test.git

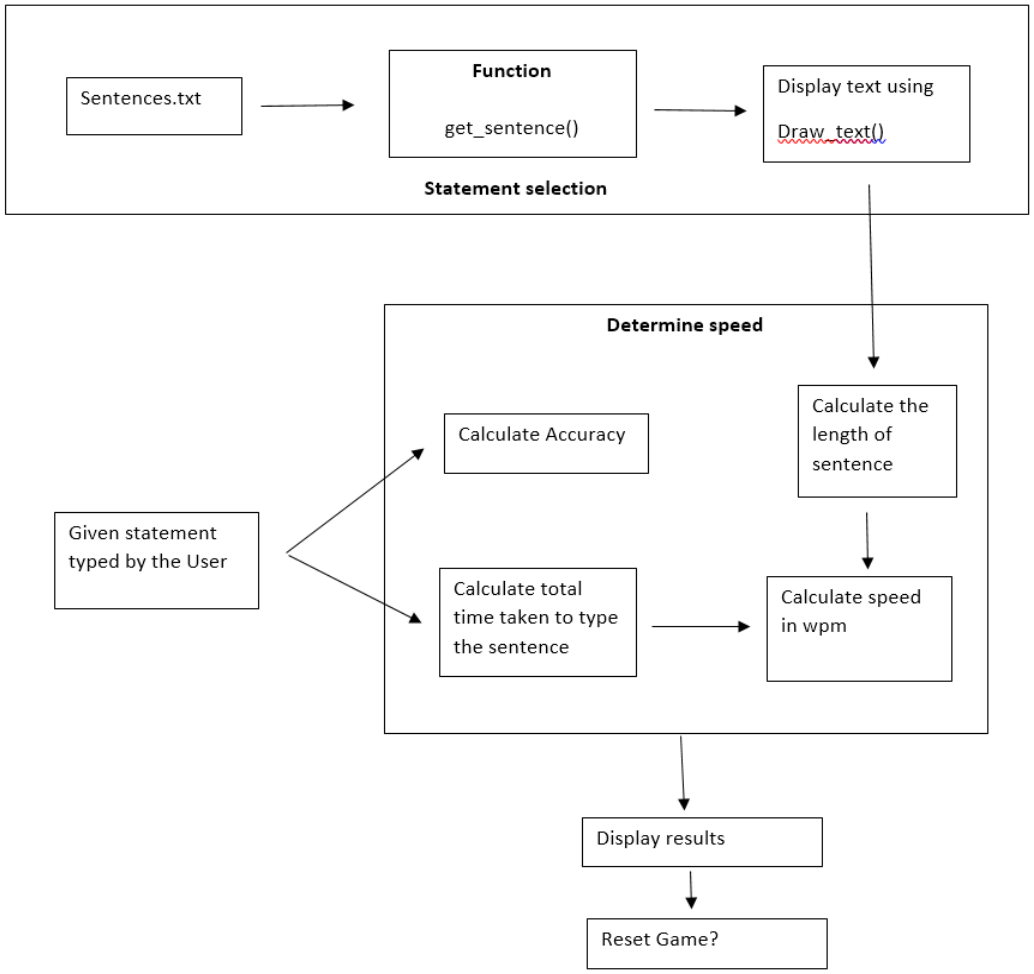
Problem definition:

- Typing speed test is a desktop based GUI application where users can test their typing speed and improve their speed.
- We have created a typing game that presents a simple typing challenge , where the user can the performance of his typing speed by Words Per Minute (WPM) and the accuracy of the typed characters.
- This project is useful and helpful for those people who are not good at typing, they can practice their speed and become good at it.

Scope:

- Smooth UI/UX for users.
- Displaying time that the user has taken to complete the test.
- Displaying accuracy and word per minute (wpm) so that user can see the performance of his speed
- Users can re apply for the test by clicking the reset button.

Component diagram:



API or package used:

Following are the API and package used in this project:

- **Pygame:** pygame is a free and open-source cross-platform library for the development of multimedia applications like video games using Python.
- **Time:** The Python time module provides many ways of representing time in code, such as objects, numbers, and strings. It also provides functionality other than representing time, like waiting during code execution and measuring the efficiency of your code.
- **Random:** The random module is a built-in module to generate the pseudo-random variables. It can be used to perform some action randomly such as to get a random number, selecting a random element from a list, shuffle elements randomly, etc.

Difficulties faced and measures taken to resolve:

- We tried to implement GUI using tkinter but the code was considerably sizable which could be avoided using pygame so we used pygame for GUI.
- As we all were new to pygame we faced all of the difficulties for layouting the components of GUI,placing them in the proper place.

Team work (Contribution of each member)

Activity	Performed by	Role
GUI design	Ishit and Chaitanya	Analysing the layout of the project.
GUI coding	Chaitanya	Implementing the GUI components
Functions Implemented	Mayank and Ishit	Taking input and calculating speed, accuracy, time, etc

Testing and error fixing	Chaitanya and Mayank	Fixing all the errors.
Presentation and report	Mayank and Ishit	