

**TITLE OF THE PROJECT**

**PyTypingTest**

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**1. INTRODUCTION AND OBJECTIVE:**

In this computer systems dominating world, Everyone wants to increase their typing speed in the computer so to do this they oftenly practice their typing speed by using a tool, Most commonly refer to as “Typing Test”. As It is very common application to be in use. I decided to give a try to this application.

The Main Objective of developing this application is to test the ability of the User to increase it’s typing speed and can effieciently use every key present in the keyboard.

In this application, I will try to test the User skills by giving him/her those sentences which consist of all the keys combination present in the keyboard. So that User can optimize use of all keys present in the keyboard.

After the test, I will also provide them Statistics of their test, So that the User will know it’s weakness and the area he/she needs to improve in order to increase his/her speed in the keyboard.

I will try to make the GUI as simple So that age level of user will find’s it’s attractive and will also enjoy using this application, along with developing it’s skills.

I have decided to give to allow the user to test his skills according to his knowledge like I will provide three levels of **dificulty** in the application which are described below:

* **Beginner:** I have decided to make this level very simple. In this level, The Sentences given to the user will combine only the alphabets and numbers key present on the keyboard. So that the Beginner level of user can test his skills on the primary keys of the keyboard. The length of the sentence in this level will be very short so that user can test his skills for short sentences.
* **Intermediate:** In this level, The Sentences given to the user will combine the special keys also from the keyboard. So that the user now can test his skill against the more broad area of the keyboard. The sentences in this level will include all the special symbols of the keyboard and the length of the sentences will also be more compare to the previous level.
* **Hard:** I have decided to make this level the hardest among the other two levels. The length of sentences in this level will be more, The Sentences will combine all the keys of the keyboard.

I will also try to add the time functinality in the application so that user can set the timing also for which amount of period. He wants to attempt certain sentences.

The timing slots will be given like 1 min, 2 min, 5 min, 30 min, 1 hour.

I think that much functionality can be easily developed within the time limit to make the project and will also serve good purpose for its use.

**2. PROJECT CATEGORY (OOPS)**

I will formulate all the implementation of this project using the concept of OOPS, So that my application can easlily reflect real world entities into the application and security will be higher as we know in OOPS, objects communicates by sending message to each other without knowing each other details.

So using OOPS concept will ensure my application flexibility. I will try to develop the functionality independant of each other using the modular approach of the developement. So that each module will be responsible for performing it’s task without taking much care about other modules.

**3. ANALYSIS**

**4. PROJECT STRUCTURE**

**4.1 Modules:**

* **Pygame**

It is a set of python modules which provide many functionality which can be use for games development. So I decided to use this module as it provides me the basics for my project which I require for the developement. It is also a cross platform module so It will make my project portable.

It provides geometry functions which helps us to create shapes, So It will help me to focus more on design instead of worrying about the design implementation specifications. That’s all for this module, The main Aim of using this module is to have some good interface implementation for my project.

* **Time**

I have used this module to provide time functionality into my application as I need to have some timer where I will collect the sentences enter by the user. In the Typing test.

It is also used to provide user the functionality of choosing the time by himself so that they can test their typing speed for the specific time frequency.

This module in python provides many ways of representing time in code, such as objects, numbers and strings. It will also helps me implement any functionality related to time effieciently.

* **Random**

This module in python is used to select random choices from the pool of data, So I am using this module in order to select random sentences based on their dificulty level.

It can be further used to implement any functionality which will require random selection from a set of data.

* **Other Modules**

**4.2 Testing Process:**

I will test my application against a large set of test cases, Those test cases will try to cover mostly every possible experiment the user of the application can do in the application.

Yes no application is 100% bug free but I will try to implement all the functionality independent of each other (my approach would be this), So that any new feature introduced in any functionality or class will not effect the existing functinoality of the system.

Those test cases will try to test every functionality of my application properly. Those test cases will be prepared by myself only. I will try to test it’s complete functionality.

**4.3 Reports Generation:**

Report will consist of my code and the outputs of my project. It will include snippets of my code and what function those snippets will perform when they will get called and also their working like how that functionality has been implemented.

It’s manual also which will include the details of how to use the application and get the most out of it. For a good application, A good manual is also a neccesity so it will also be the part of my report.

**5. REQUIREMENTS**

Each software has some requirements installed already in the system in order to run out the application smoothly so that it can perform various operations smoothly. My Application has also some requirement. These requirements are needed to be installed before running the application else you will end up crashing the program.

**5.1 Software Requirement:**

* Python3 or above
* pygame

**5.2 Hardware Requirement:**

* Laptop or computer.

No other advanced requirement for Hardware.