
ATTENDANCE SYSTEM USING FACE RECOGNITION

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ABSTRACT

The upkeep of the student's attendance information is handled by the student attendance management system. Based on the student's attendance in class, it calculates their attendance. The staff will be given a unique username and password in order to keep track of students' attendance on a daily basis. All students' attendance is the responsibility of the staff member in charge of that topic. The attendance will only be determined if the student presents the specific day. A monthly and combined report on student attendance will be produced.

Keywords: Face Recognition, Attendance, Python.

I. INTRODUCTION

Face recognition is another way of taking attendance. The project is made in python language. The facial recognition technology is used for recording attendance through digital camera that detects and recognizes faces of the students. The face of student is matched with image which is stored in database and then the attendance is marked.

II. LITERATURE REVIEW

One of the few biometric techniques that has the advantages of high accuracy and little intrusion is face recognition. It is accurate yet not obtrusive, like a physiological approach. Due to the rise in the number of real-world applications requiring the recognition of human faces over the past 30 years, several researchers have put forth various face recognition approaches. The work of automatic facial recognition is exceedingly challenging due to a number of issues. However, a person's facial image enters the database, which is often gathered under various circumstances.

With so many different photographs of the same face due to variances in the following factors, such as

1. Pose
2. Illumination
3. Expression, automated face recognition is crucial.
4. Movement

Aim of Project

- To keep track of, manage, and have access to data on who attended each lecture and lab.
- All student attendance information will be stored and managed through the Attendance using face recognition.
- To find a series of data of the same face in a set of training images in a database.
- Security will also be increased by maintaining attendance data in the system rather than on paper.
- To provide user-friendly interface.
- This system reduces the workload of people.

Images

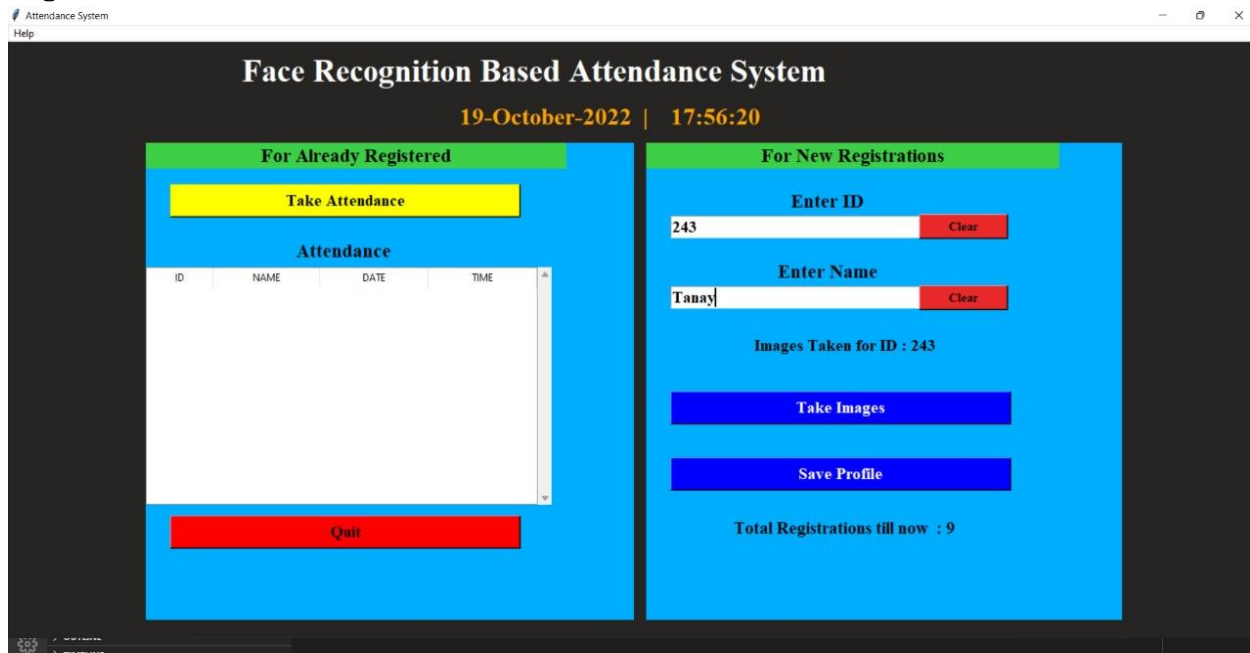


Figure 1. Project Screenshot-1

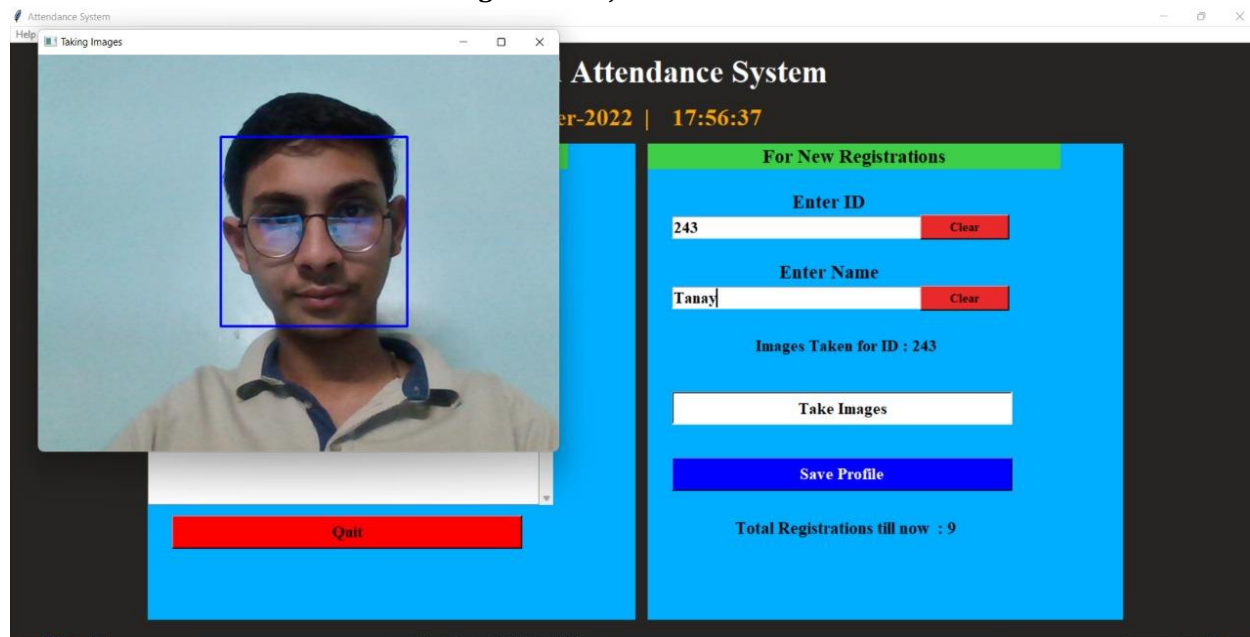


Figure 2. Project Screenshot-2

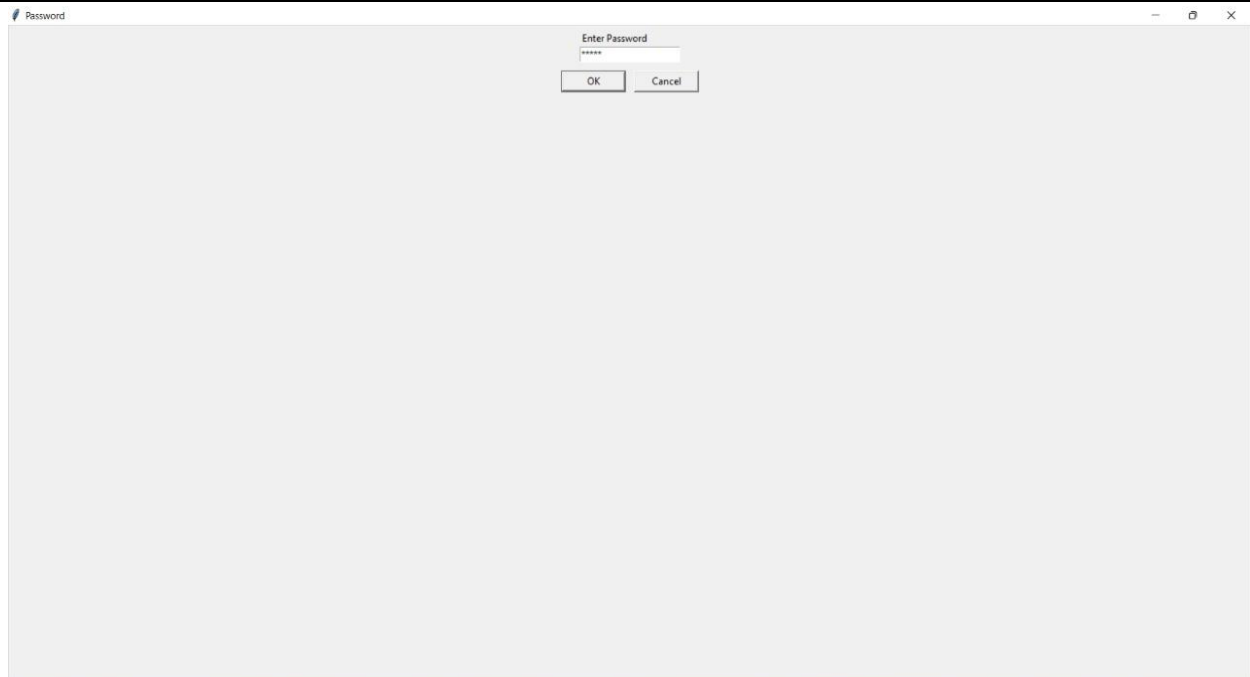


Figure 3. Project Screenshot-3

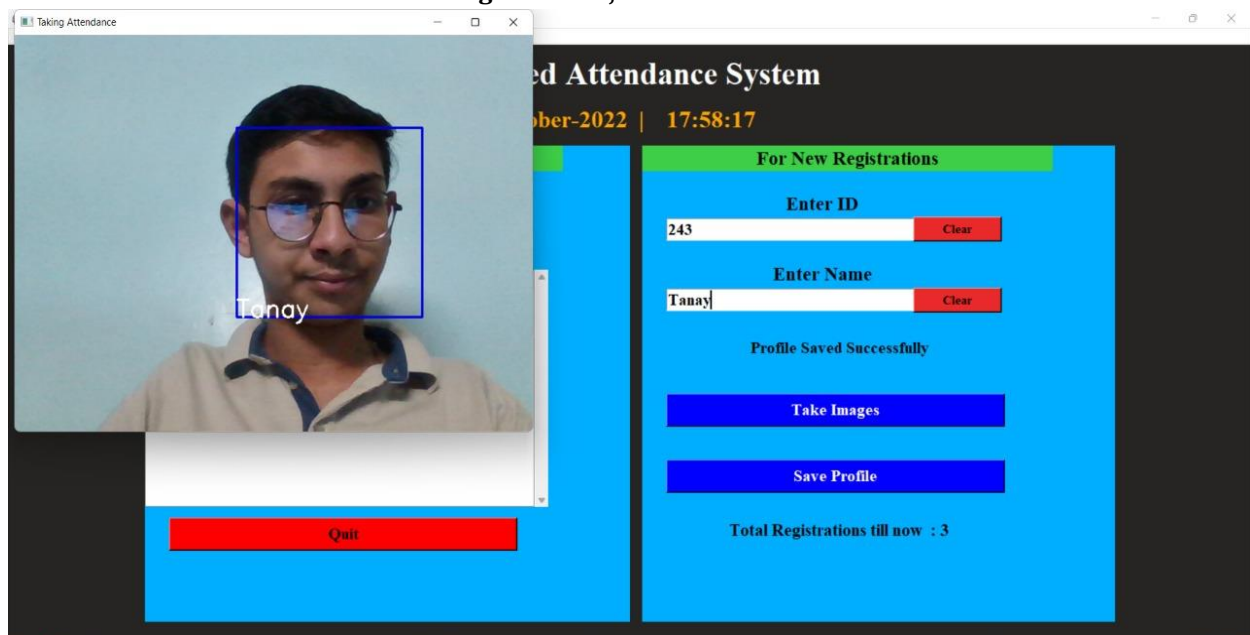


Figure 4. Project Screenshot-4

III. METHODOLOGY

Before the attendance management system to function, a set of data that primarily comprises of the person's basic information, such as their ID and their faces, must be supplied into the system. The first step in acquiring a portrait is to use the camera to take pictures of people's faces. The system will first check to see if there is a face in the photograph that was shot; if not, it will encourage the user to take another picture of their face until the project's minimum need of 10 photos for each student is met. Due to storage space restrictions, only 10 portraits of each student will be kept.

IV. CONCLUSION

In order to address the problems with the current manual systems, the Attendance using Face Recognition was created. To track student attendance and improve the system, we applied the facial recognition approach. The system functions admirably in various positions and variants.

In the end, we can state that this software accurately completes all duties and carries out the intended tasks.

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V. REFERENCES

- [1] Python documentation: <https://docs.python.org/3/>
- [2] Resource for learning and inspiration: <https://youtu.be/gfDE2a7MKjA>