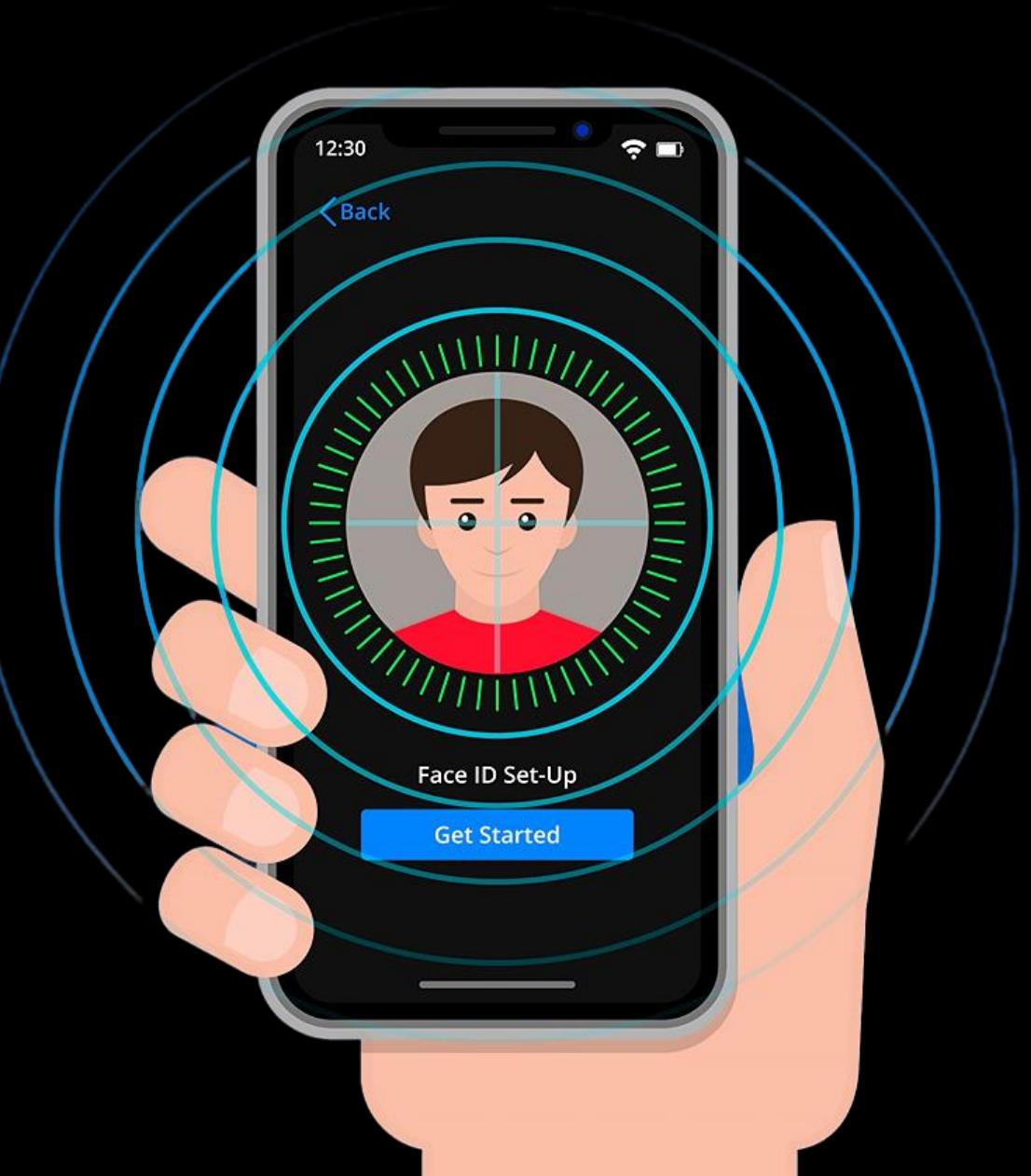


YOUR FACE, YOUR PRESENCE, YOUR TIME

Snap Attendance System

Presented By :
Kishor Nikhare
Krushita Bheda
Prashant Chaute



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Introduction Of Snap Attendance

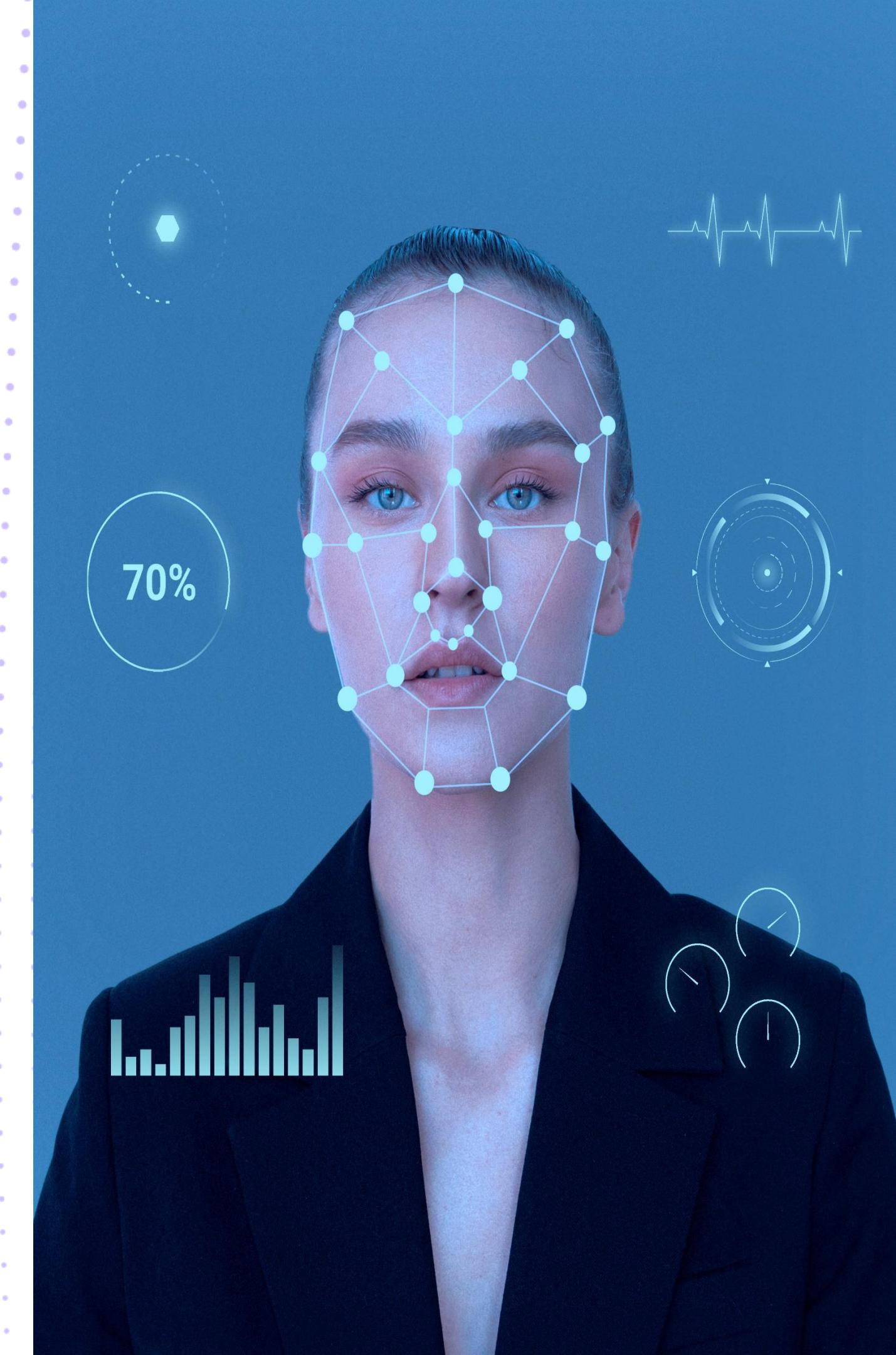
Initial Overview

Welcome to Snap Attendance! We have developed an automated attendance system that uses face recognition technology.

It is as simple as taking a photo to mark your attendance. Our system efficiently recognizes faces, saving time and effort.

Our goal is to eliminate manual attendance taking attendance and reduce paper works.

We offer user-friendly interface, allowing both students and teachers to login easily.



Objectives Of Snap Attendance

SnapAttendance

Project Objectives

Our project aims to develop an automated attendance system using face recognition technology.

We focus on creating a user-friendly interface, ensuring easy navigation and accessibility.

Teachers will have administrative control over student details.

Our objective is to achieve efficient and close to accurate face recognition for attendance marking, minimizing error and improving reliability.

Phases Of Snap Attendance

Stages of Snap Attendance

Learn about the different stages in creating Snap Attendance, Our user-friendly automated system.

Planning

Deciding what needs to be done and how. This involves setting goals and creating a roadmap for the project.

Research

Learning about face recognition and what users need. This phase also involves talking to users to understand their needs and preferences and gathering all the necessary information.

Design

Making plans and drawings for how the system will work. This includes creating blueprints and prototype to visualize the final product.

Stages of Snap Attendance

Learn about the different stages in creating Snap Attendance, Our user-friendly automated system.

Development

Building the system according to the plans. Here, programmers write the code and put pieces of the system together.

Testing

Trying out the system to make sure it works perfectly. This phase involves running different tests to find and fix any problem or bugs.

Deployment

Putting the system into use of everyone. This phase includes installing the system and making sure it works for all users.

Technologies Used In **Snap Attendance**

Discover the different modern tools and methods we have used to create Snap Attendance, making attendance tracking easier and more efficient than ever.

Frontend Technology

We used HTML to create the basic structure of the web pages.

CSS to style the web pages and make visually appealing.

JavaScript handled client-side validation, ensuring user inputs are correct.

AJAX for handling the request to the server without reloading the entire page.

Additionally we have used already published templates for designing.

Backend Technology

Python served as the primary programming language for the backend development.

The Flask library facilitated the creation of web applications in Python.

SQLite database was employed to store and manage student details efficiently.

The other libraries like OpenCV, OS, NumPy etc.. to make automated attendance system.

Face Recognition Model

The Face Recognition model played a crucial role in identifying students faces in real-time.

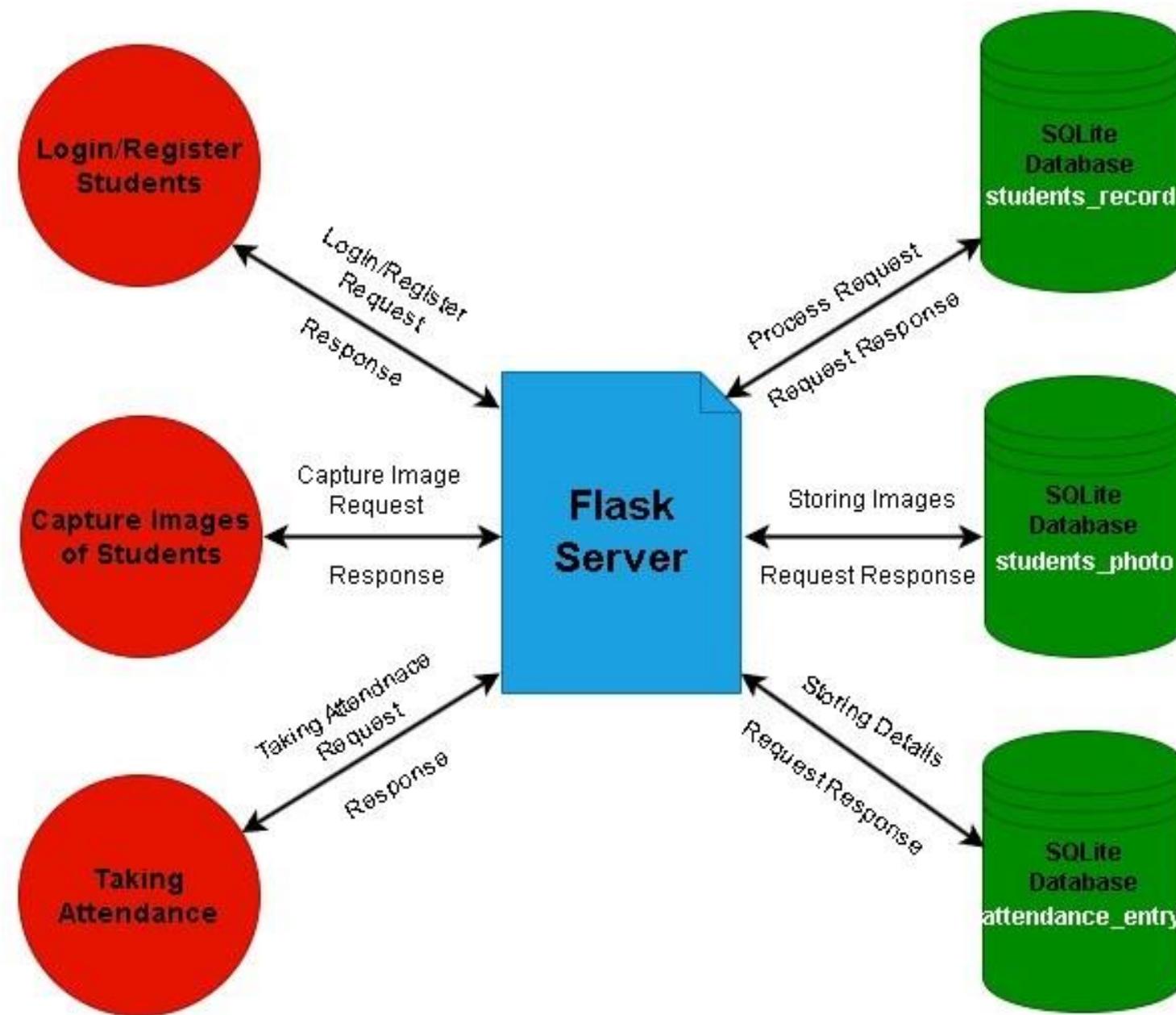
It was trained to recognize faces accurately from various angles and lighting conditions.

The model's accurate result ensured reliable attendance tracking and enhanced user experience.

Data Flow Diagram Of **Snap Attendance**

Visualize the flow of data within Snap Attendance, simplifying the understand of how information moves through the system.

Data Flow Diagram



A Data Flow Diagram (DFD) shows how information moves through a system.

In Snap Attendance, it illustrates how data moves from where it's inputted, like when users interact with the system, to different parts of the system for processing and storage.

This diagram helps us understand how Snap Attendance works, like what happens to the data after it's inputted, and helps us make sure everything runs smoothly.

Login Functionality Of **Snap Attendance**

Explore the user-friendly login process of Snap Attendance, ensuring easy access for all the users. Discover how students and teachers securely log in to access attendance records and manage accounts efficiently.

For Student

Students can easily access Snap Attendance using their provided student id and roll number. Once logged in, they can see their own dashboard :

1. View Attendance Entry
2. Access Profile Details
3. See Recent Attendance
4. Logout

Sign in as Student

Student ID

Enter Student ID

Roll Number

Enter Roll Number

Login

Are you a Teacher? [Click here](#)

Sign in as Teacher

Teacher ID

Enter Teacher ID

Password

Enter Password

Login

Are you a Student? [Click here](#)

For Teacher

Teacher have access to Snap Attendance's comprehensive features to manage attendance.

Teachers can do :

1. Take Attendance
2. Capture Student Images
3. Add Student
4. Update Records
5. Export Records

The Main Process

Take Attendance

Take Attendance

In the Snap Attendance, Taking Attendance is the important component. Only authorized teachers can take attendance. Here how it works :

1. Select Subject and Teacher Name
2. Clicks On Take Attendance Button
3. Webcam Activation
4. Face Recognition
5. Database Storage

Take Attendance

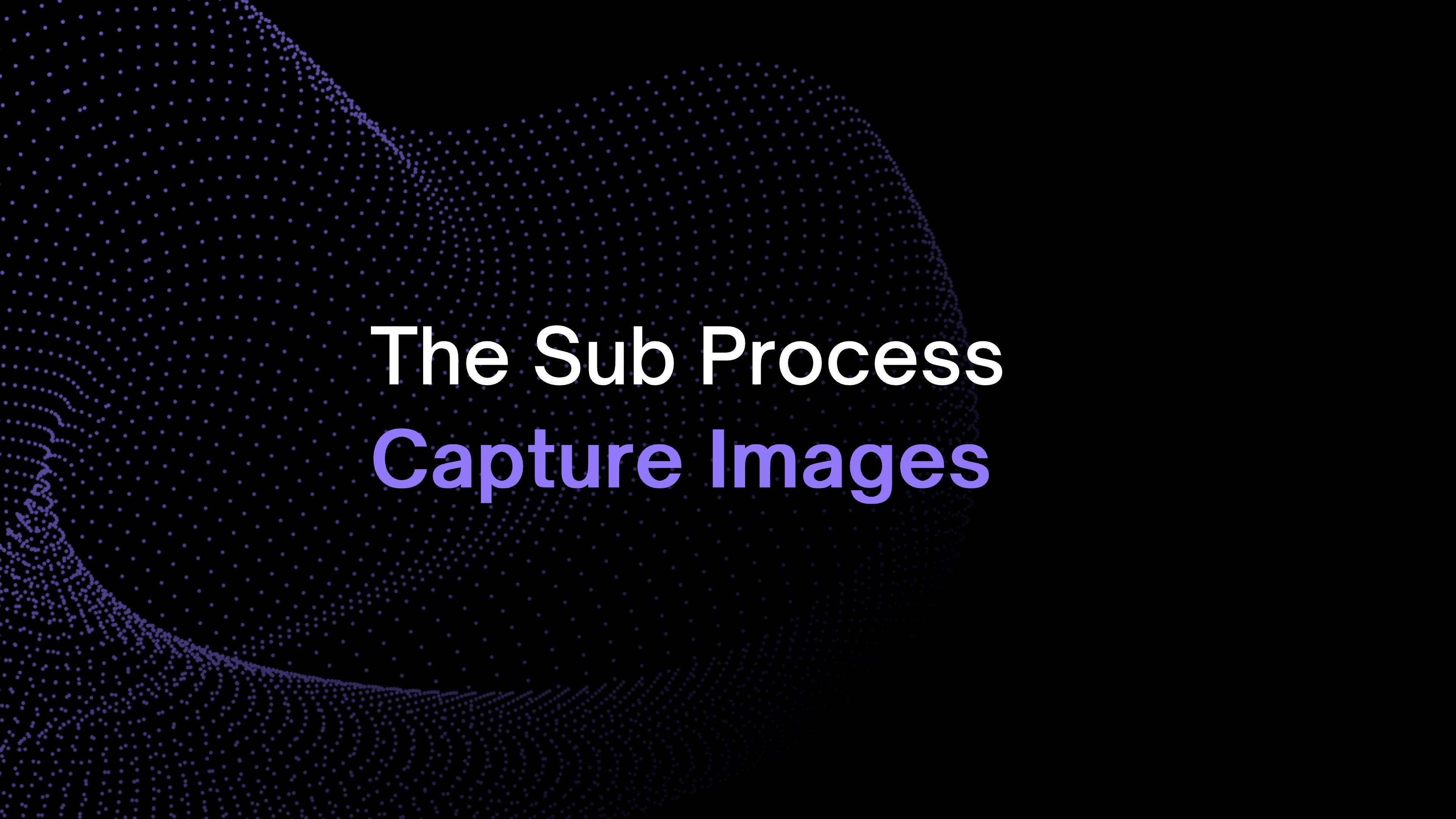
Subject :

Python

Faculty Name :

Prof. Nisha M.

Take Attendance



The Sub Process Capture Images

Capture Images

Capture Student Image

Student ID:

Enter Student ID

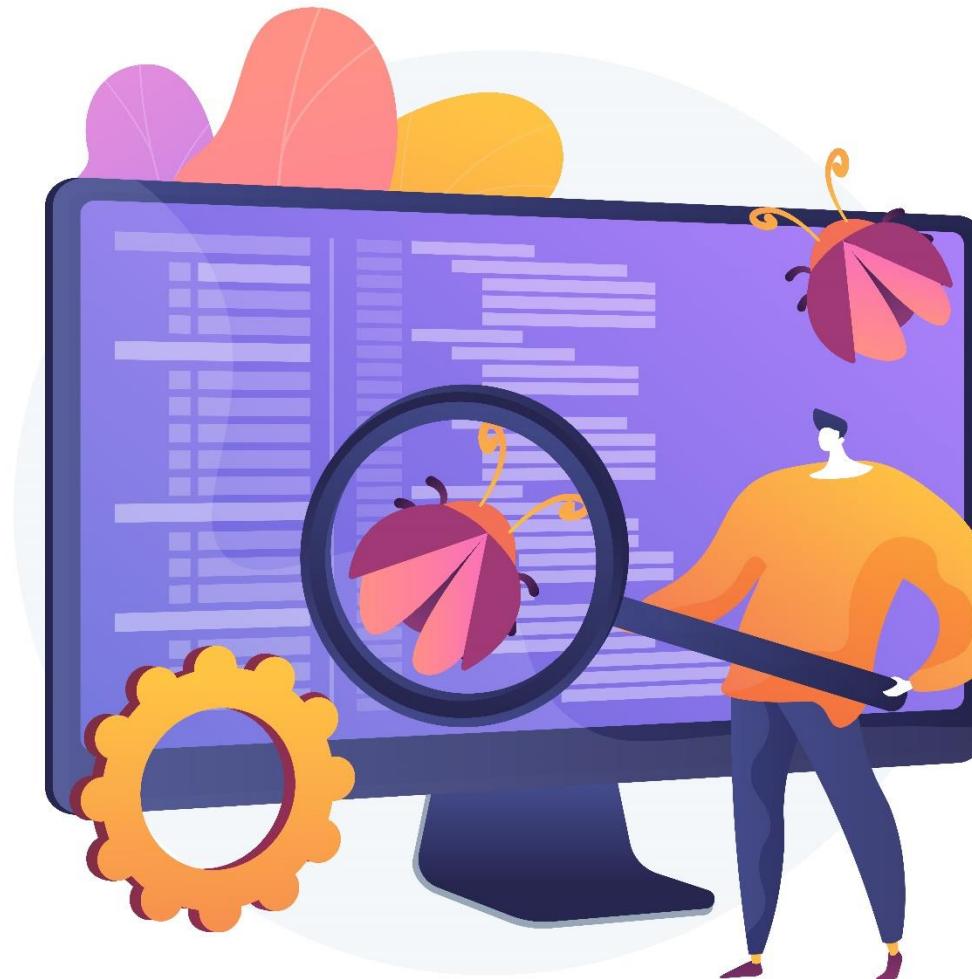
Capture Image

In Snap Attendance, capturing student images is an important step to ensure accurate face recognition during attendance. Here how it works:

1. Assign Existing Student ID
2. Webcam Activation
3. Capture Images
4. Quality Assurance
5. Benefit in Attendance

System Testing Of Snap Attendance

System Testing



System Testing is a critical phase in the development of Snap Attendance, ensuring that all components work together and meet the project requirements. During this phase :

1. Functionality Testing
2. Performance Testing
3. Usability Testing
4. Result Tracking Testing
5. Manually Testing

Limitations and Future Scope Of Snap Attendance

Understand the boundaries of Snap Attendance's capabilities and potential for further development.

Limitations

Understand the current constraints of Snap Attendance, including potential issues with face recognition accuracy or hardware compatibility.

1. Hardware Dependence
2. Performance Issues
3. Security Concerns
4. Mobile Compatibility



Future Scope



There are opportunities for future enhancements to further improve the functionality, usability, and performance of the application.

1. Mobile Application Development
2. Biometric Authentication
3. UI Enhancements
4. Performance Optimization
5. Manually Testing

Conclusion

Understand the Conclusion of Snap Attendance

The Conclusion Of Snap Attendance

In summary, Snap Attendance makes attendance tracking easy for schools.

Using smart face recognition, it accurately records who's present.

With its user-friendly design and thorough testing, Snap Attendance ensures it works well.

Looking ahead, it could do even more with real-time data and better accuracy.

Snap Attendance is set to change how schools take attendance, making it simpler and more reliable for everyone.

References

1. [Face Recognition Library](#)
2. [OpenCV Documentation](#)
3. [Perplexity AI](#)
4. [YouTube](#)

Thank You