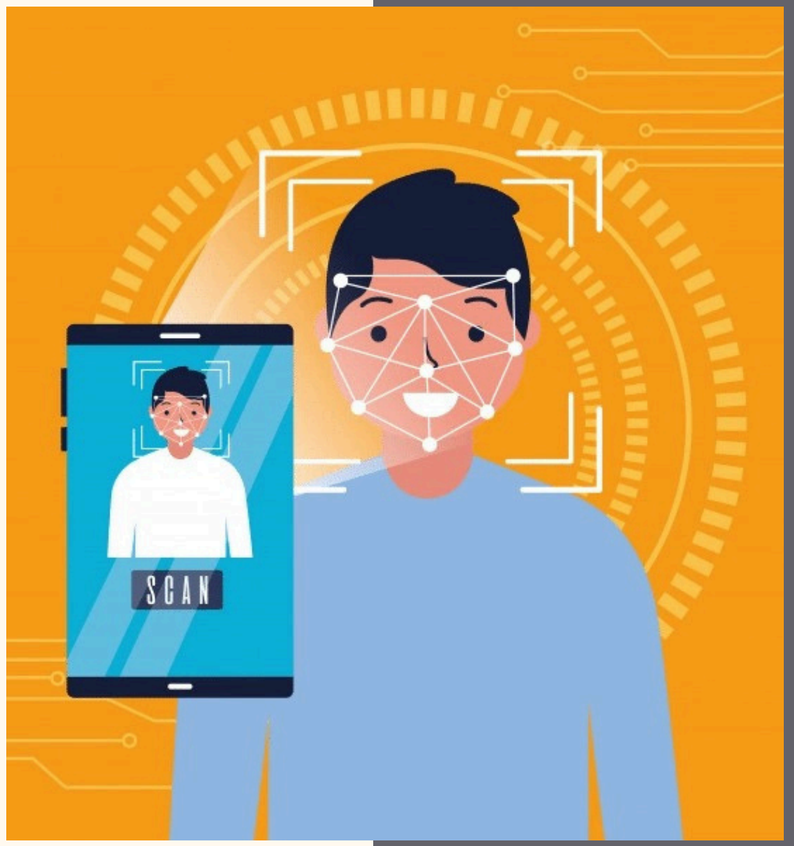
Indian Institute of Information Technology, Guwahati

# Automatic Entry Registration System




Advisor : Dr. UPASANA TALUKDAR
Presented By : KIRAN KUMAR ROUT
Roll Number : 2101100

CS300 PROJECT

# TABLE OF CONTENT

IIIT Guwahati

# INTRODUCTION

This project develops an Automatic Entry Registration System, utilizing face recognition technology to automate the traditional attendance system. The system digitally records student's in-time, out-time and overall attendance. Integrated with a user-friendly GUI, the system serves as an efficient upgrade over manual attendance marking, enhancing operational efficiency, security, and attendance monitoring.

## HARDWARE

- Computer (i5, 8gb)
- Camera
- Hard Disk:- 1TB

## SOFTWARE

- Windows , Linux
- Python,MySQL
- Visual Studio Code

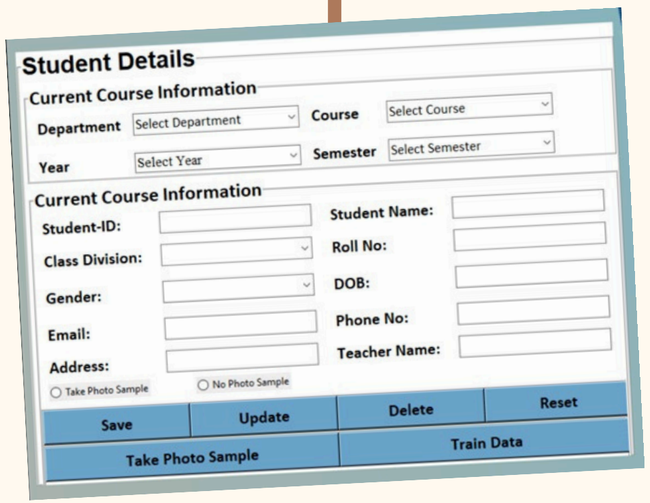
## Technology

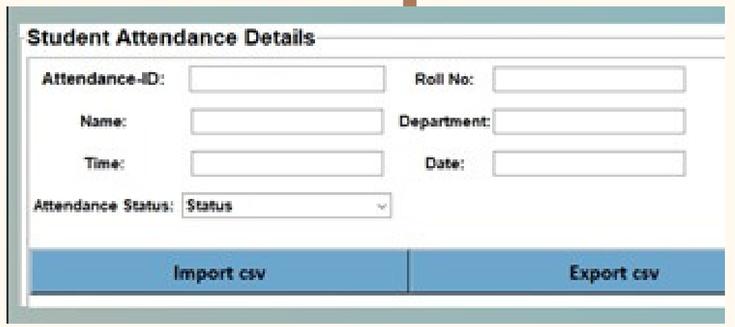
- OpenCV
- Tkinter
- Django
- Open-Source Face Recognition Library
- SQLITE Database.

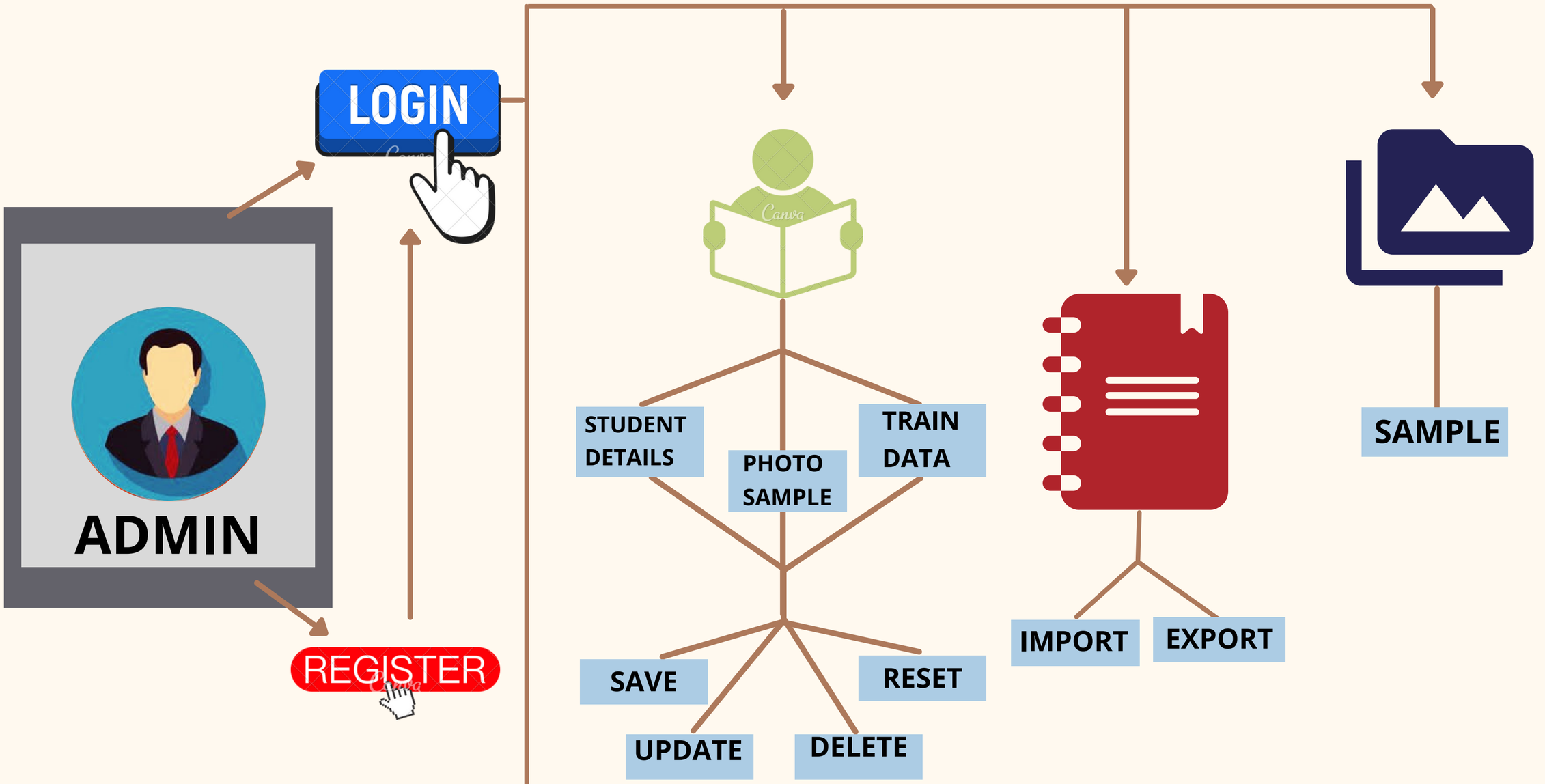
## Functionalities

- Login
- Register new Students to the system
- Add Student photos to the training data set
- Train the model
- View attendance report of all Students.
- Attendance can be filtered by date or Student.

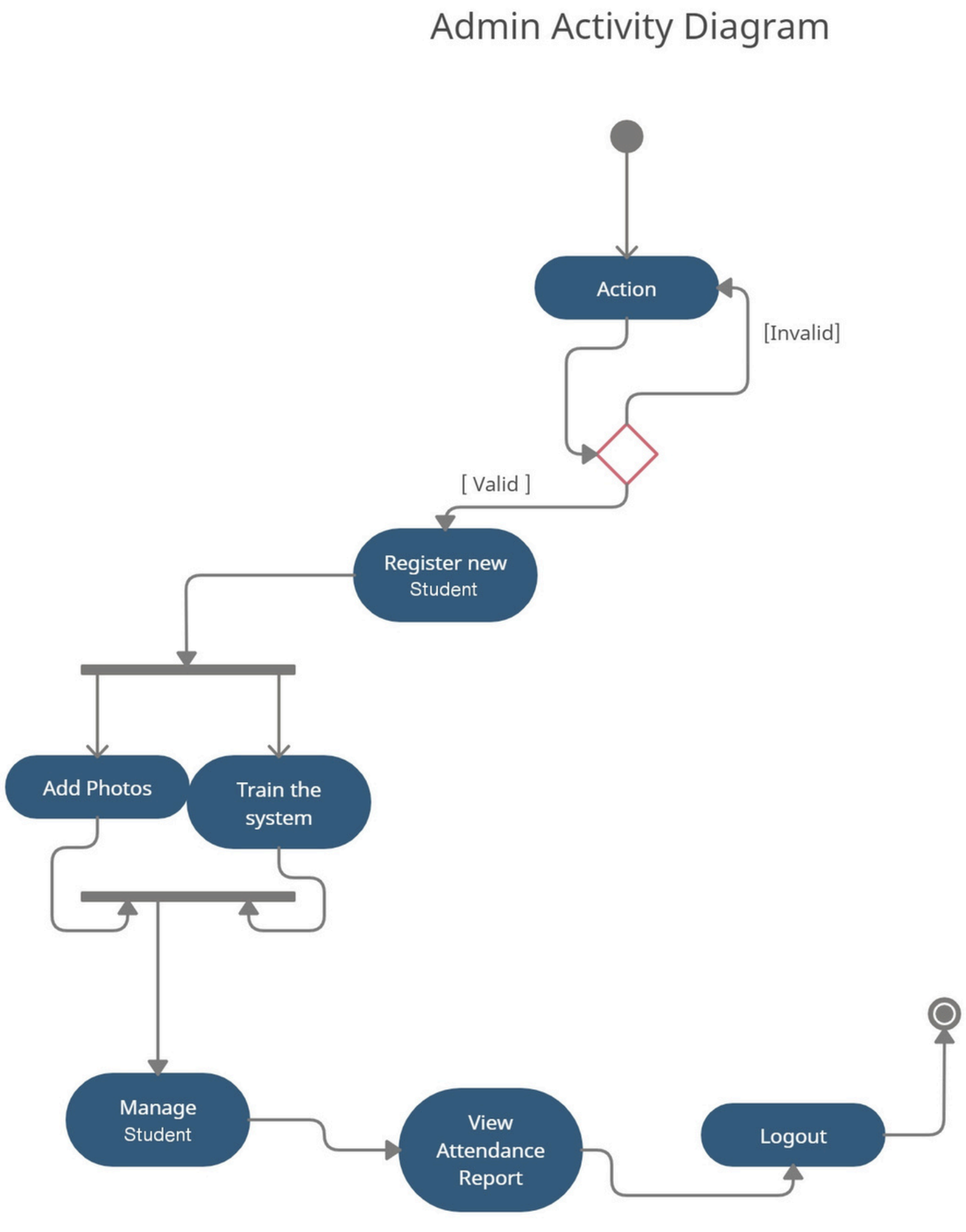
# ADVANCED FEATURES

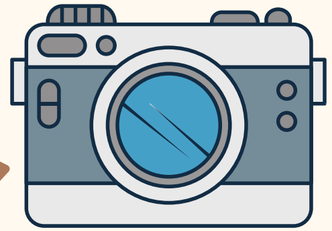




LOGIN
ADMIN
REGISTER
STUDENT DETAILS
PHOTO SAMPLE
TRAIN DATA
SAVE
RESET
UPDATE
DELETE
IMPORT
EXPORT
SAMPLE

IIIT Guwahati

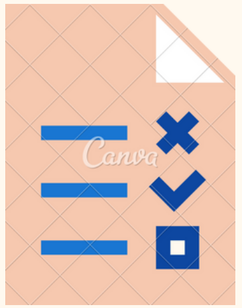


STUDENT



CAMERA

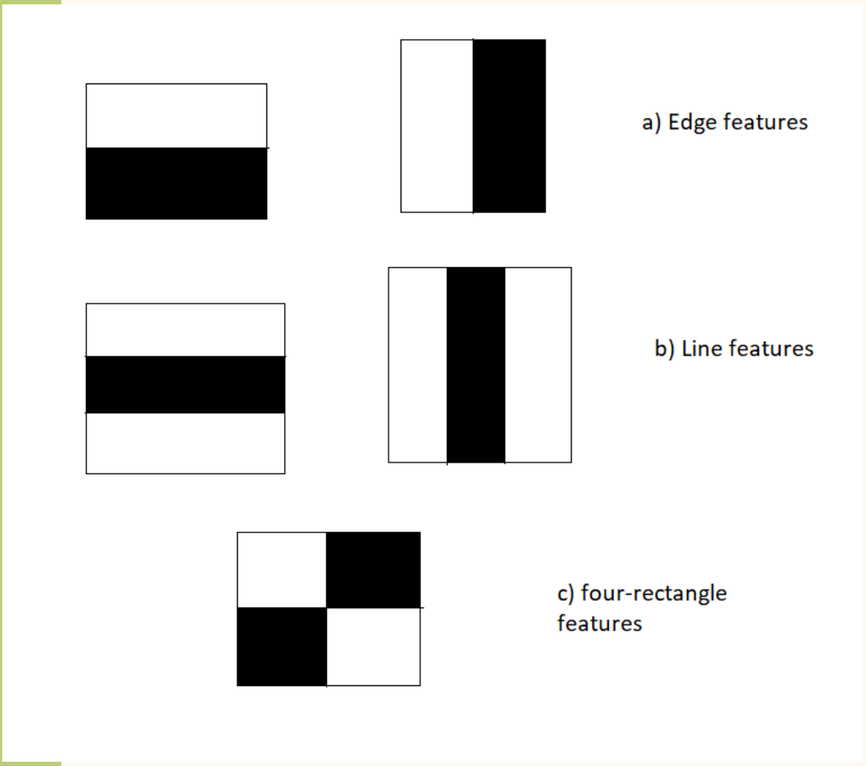

DETECTION



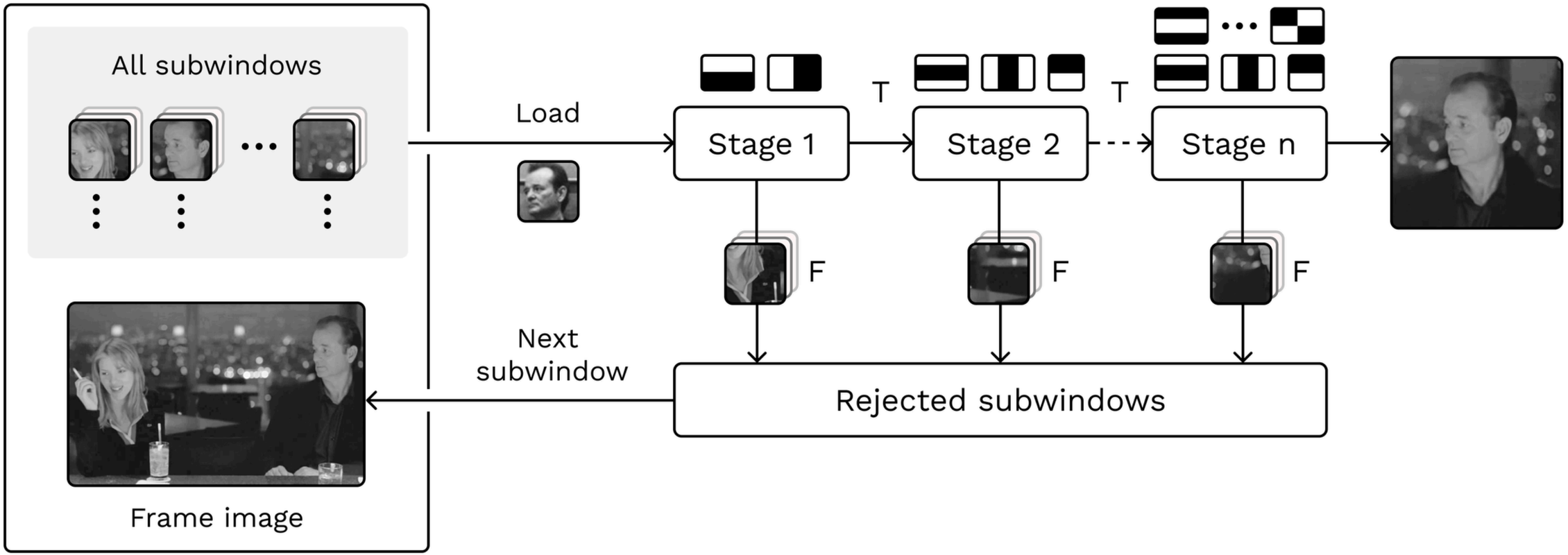

ATTENDANCE

# Haar Cascade Classifier:

A Haar-like feature consists of dark regions and light regions. It produces a single value by taking the difference of the sum of the intensities of the dark regions and the sum of the intensities of light regions. It is done to extract useful elements necessary for identifying an object.



## Cascade structure for Haar classifiers



# CONCLUSION

The successful implementation of the outlined functionalities has resulted in a robust attendance management system. It offers seamless user experience through registration, login, and profile management. Viewing attendance records by date, student, and number present provides valuable insights. Accurate attendance marking and photo uploads promote accountability. Self-training and student addition features demonstrate scalability and adaptability. Overall, this system simplifies attendance tracking, offers efficient data management, and fosters punctuality awareness, showcasing effective technology application for streamlining processes and enhancing productivity.

# FUTURE SCOPE

Some of the future enhancements that can be done to this system are as follows:

Real-time Email alerts for warden when an student's attendance is marked as late, promoting immediate awareness and action.

For students, we can develop a dedicated login page in which they can see their details and attendance record.

In future we can update the modules like:

Implementing anti-spoofing facial recognition for enhanced security.

# Thank You!