SafHom

The purpose of this semester project is to develop an AI-based intrusion detection system for facial recognition using CCTV cameras. The system will analyze the video feed from CCTV cameras and detect any unknown faces in the premises. If a face is detected, the system will then compare it to a pre-defined database of authorized personnel. If the face is recognized, the system will announce the name of that person. However, if the face is not recognized and remains in the camera's field of view for more than three minutes, the system will trigger an alert in the house. Otherwise, the face will be saved into the unauthorized faces folder and will be available for review.

Project Goals:

* Develop an AI-based intrusion detection system for facial recognition using CCTV cameras in Python.
* Implement machine learning algorithms to analyze video feed and detect faces.
* Integrate the system with a database for storing recognized and unrecognized faces separately.
* Inform the user when an authorized person's face is recognized.
* Trigger an alarm when an unknown face is detected and remains in the camera's field of view for more than three minutes.