ENHANCED OUTPASS SEURITY WITH FACIAL RECOGNITION

A MINI-PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS TO RGUKT-SRIKAKULAM FOR THE AWARD OF THE DEGREE OF

BACHELOR OF TECHNOLOGY (AY: 2023-2024)

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Computer Science and Engineering

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CERTIFICATE

This is to certify that the mini project report titled "**ENHANCED OUTPASS SECURITY WITH FACIAL RECOGNITION**" was successfully completed by **SIDDINA SURYA PRAKASH(S191072) , RAGHUPATRUNI SAI NIHARIKA(S190342), MANEM LAKSHMI DIVYA (S190185) , KINJARAPU VANITHA(S190369)** under the guidance of **MRS.CH.LAKSHMI BALA MADAM** In partial fulfilment of the requirements for the Mini Project in Computer Science and Engineering of Rajiv Gandhi University of Knowledge Technologies under my guidance and output of the work carried out is satisfactory.

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Certified that this project work titled "**ENHANCED OUTPASS SECURITY WITH FACIAL RECOGNITION "** is the bonafide work of **SIDDINA SURYA PRAKASH(S191072), RAGHUPATRUNI SAI NIHARIKA(S190342), MANEM LAKSHMI DIVYA(S190185),KINJARAPU VANITHA(S190369)** who carried out the work under my supervision, and submitted in partial fulfilment of the requirements for the award of the degree, Bachelor Of Technology, during the year 2023 - 2024.

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ABSTRACT

The "ENHANCED OUTPASS SECURITY WITH FACIAL RECOGNITION" is an integrated solution tailored for academic institutions, specifically designed to streamline and enhance the traditional outpass issuance process. This innovative system leverages cuttingedge facial recognition technology to ensure a secure and efficient approach to monitoring student movements within the campus premises. The primary objective of this project is to revolutionize the current manual outpass system by introducing automation through advanced Facial Recognition. The system incorporates a user-friendly web interface accessible to both Wardens and security personnel at Main Gate. Students initiate outpass requests, specifying their purpose, while the Wardens will utilize the facial recognition system to verify the identity of the requester and the face recognition system will identify faces of the person who came to take the student as a parent by minimising the human effortby security guards and caretakers. The facial recognition algorithm employed in this system is capable of accurately identifying individuals based on distinctive facial features. This not only expidits the verification process but also significantly enhances security by preventing unauthorized access.

The system maintains a comprehensive database of enrolled students, ensuring that only valid requests are processed. Additionally, the system offers a centralized management dashboard that allows administrators to monitor real-time data on student movements. This includes detailed logs of entry and exit times, providing valuable insights for attendance tracking and security analysis. The project incorporates robust security measures to safeguard the integrity of the stored data, adhering to privacy and compliance standards. In conclusion, the "Facial Recognition Outpass Management System" represents a technological leap forward in campus security and administration. By seamlessly integrating facial recognition into the outpass issuance process, the system not only ensures efficiency but also contributes to a safer and more secure educational environment.

KEY WORDS: Facial recognition, openCV, Flask, Jinja2 Template, Outpass management system

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Chapter-1

INTRODUCTION

1.1. Introduction

The Traditional outpass management process within our campus relies heavily on manual paperwork, resulting in a time-consuming procedure for both students and Wardens or Caretakers. The existing system lacks efficiency, often leading to delays in the approval process and potential errors in documentation. The current paper-based approach involves students physically submitting outpass requests, which are then manually processed by administrative personnel. This process not only consumes valuable time but also poses challenges in terms of recordkeeping, tracking, validating the student and maintaining the security of sensitive information. Recognizing the limitations of the current system, there is a compelling need for a modern and technologically advanced solution that can overcome these challenges and bring about a positive transformation in the way outpasses are managed within our campus.

1.2 Motivation

In a time where technology is advancing rapidly, and our education systems are evolving into the digital age, the traditional methods of handling university outpasses seem outdated. Dealing with long waiting periods and the hassle of paperwork became personal experiences that highlighted the need for a modern solution. This project is driven by a strong belief in the power of technology to simplify our lives. It's an answer to the call for change, aiming to make routine administrative tasks smoother. The Facial Recognition Outpass Management System is our way of improving efficiency, ensuring security, and making the educational experience more seamless for Students, Wardens and Security Personnel.

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1.3 Problem Statement

The current manual outpass system in academic institutions poses challenges in terms of security and efficiency. To address this, we are implementing "Enhanced Outapss Security with Facial Recognition". The project focuses on streamlining student outpass requests, ensuring accurate identity verification through facial features, and providing real-time monitoring for Wardens. By doing so, the

system aims to revolutionize campus security, offering a secure and efficient solution for monitoring student movements within the premises.

1.4 Objectives

The principal aim of our project, the "Enhanced Outpass Security with Facial Recognition" is to revolutionize and modernize the traditional method of acquiring university outpasses. The existing process, often manual and time-intensive, is prone to inefficiencies, delays, and errors. Our project seeks to address these challenges by implementing a robust facial recognition system to streamline the issuance and verification of outpasses within the university campus.

1.5 Scope

The scope of this project includes the development and implementation of a comprehensive Facial Recognition Outpass Management System. The system will utilize facial recognition technology to automate and streamline the issuance and validation of outpasses and Tracking Live Moments of the students.

Chapter – 2

LITERATURE SURVEY

Facial recognition technology has seen rapid advances in recent years. Several techniques have been applied for automated facial recognition. This literature recognition analyzes existing research related to applying facial recognition techniques.

Lukas et al. [4] proposed a student attendance system using face recognition on a small dataset of 176 images from 16 students. They employed discrete wavelet and cosine transforms along with a radial basis function neural network. A key limitation was the small dataset size. The system achieved 82% accuracy.

Menon et al. [5] implemented custom face recognition using the YOLOv3 algorithm on a large dataset. However, YOLOv3 can sometimes struggle with precise face boundary detection, impacting recognition accuracy. They achieved 63.4% accuracy.

Yang and Han [6] developed a face recognition attendance system using basic face recognition techniques like geometric features, subspace analysis, neural networks and SVM. They did not explore critical privacy aspects around consent and data policies. The system obtained 82% accuracy.

Reviewing these studies highlights that deep learning approaches like YOLOv3 are fast and effective for face recognition. However, accuracy can be limited by precise face boundary detection. Using small datasets also limits robust evaluation. Furthermore, privacy aspects related to facial data consent and policies need to be addressed.

In conclusion, a facial recognition based outpass management system solution needs to use a robust dataset and technique to enhance accuracy, while also incorporating necessary data privacy measures**.**

Chapter 3

SYSTEM ANALYSIS

3.1 Existing System

In traditional outpass management systems, the process is often manual and time-consuming. Security personnel or administrative staff typically handle the issuance of outpasses, relying on identification cards and manual record-keeping. This approach can lead to errors, delays, and increased workload. The lack of a reliable verification mechanism may also compromise security. Existing outpass management system with facial recognition enables only students to recognize their faces and get outpass without parent arrival to the campus. System does not work for girl students at all as it work for male students. It asks for the student also when he/she returns from the leave .

3.1.1 Disadvantages:

1. Algorithm of face recognition is not working well with few changes in the lightning environment and facial changes.

2. Existing system only applicable for male students for whom parents are not required to come but it doesn't work for female students in our campus as the system don't have face recognition access.

3. Existing system also lack the identification of the student coming to the campus after taking the leave.

3.2 Proposed System

The proposed "Enhanced Outpass System with Facial Recognition" addresses inefficiencies and security concerns of traditional manual outpass systems. It features two main components: a caretaker module and a main gate module, both equipped with facial recognition.

1. Caretaker Module:

Student Face Capture: The caretaker captures the student's face using a camera.

Verification: The system verifies the captured image against the student database. If matched, the system prepares the outpass details.

Issuance of Outpass: Upon successful verification of both student and parent, the outpass is issued.

2. Main Gate Module:

Parent Face Capture: At the main gate, the security personnel capture the parent's face.

Verification: The system checks the parent's face against the registered database. If matched, the outpass is validated.

This system consists two different portals (i.e, for girls and boys). It enhances security by requiring dual verification, reduces administrative workload through automation, and ensures accuracy, efficiency, and convenience in the outpass issuance process.

3.3 System Requirements

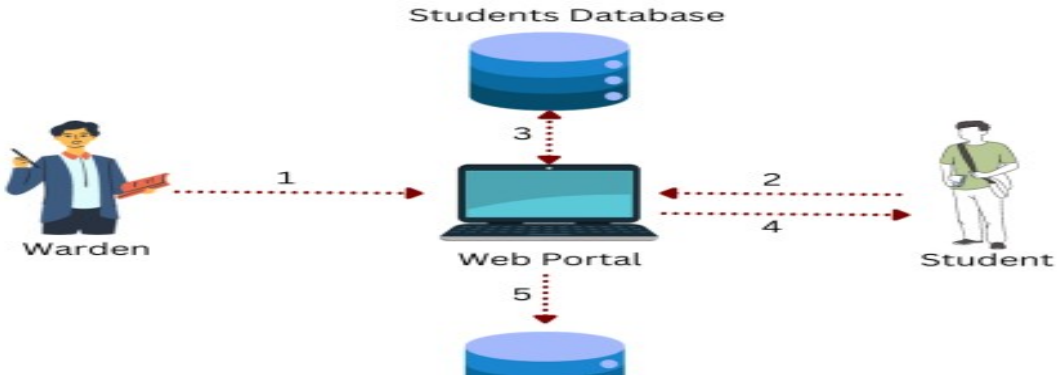
3.3.1 Software Requirements

- Python
- Flask
- OpenCV
- HTML
- CSS
- Jinja template

3.3.2 Hardware Requirements

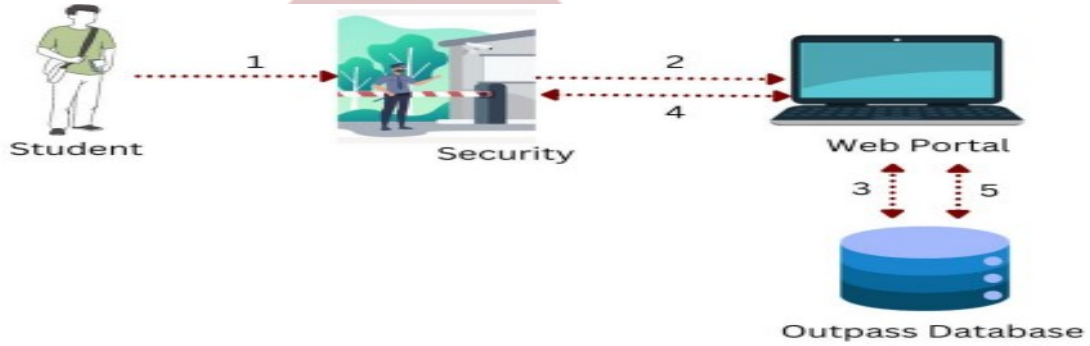
- Processor with GPU
- RAM with 16GB minimum
- Storage
- High-Resolution Scanner
- Internet Connectivity

3.4 SYSTEM ARCHITECTURE



In Wardens Office

1. Warden logs into the portal.
2. Warden captures student picture or enters student ID.
3. Portal fetches student details (Id number, name, branch, photo, year).
4. Caretaker validates details and issues an outpass after updating the reason via the portal.
5. Portal updates issued outpass details in the outpass database.



At Main Gate

1. Student provides student ID or outpass ID to the security at the main gate.2. Security enters the provided ID into the portal
3. Portal validates if the student has a valid outpass or not.
4. Security confirms the student's status (entering or leaving) with the student.
5. Portal updates the out time if the student is leaving or in time if the student is entering the campus.

Chapter 4

4.1 Feasibility study:

4.1.1 Technical Feasibility

4.1.1.1 Programming Languages

Python Purpose: Backend logic, server-side processing, and communication between the server and applications.

4.1.1.2 HTML, CSS, JavaScript Purpose:

Frontend structure, styling, and dynamic UI components for enhanced user experience.

4.1.2 Web Frameworks

4.1.2.1 Flask Purpose:

Handling server-side logic, routing, and managing HTTP requests.

4.1.3 Image Processing and Computer Vision Libraries:

4.1.3.1. OpenCV Purpose:

Image processing, face detection, and feature extraction.

4.1.3.2. Face Recognition Library Purpose:

Specialized library for facial recognition tasks using pretrained models.

4.1.4 Templating Engine

4.1.4.1 Jinja Templating Engine Purpose:

Embedding Python code within HTML templates for dynamic content generation.

4.1.5 Real Time Video Streaming

4.1.5.1 OpenCV for Video Capture Purpose:

Capturing real time video streams from cameras. The technical feasibility analysis indicates that the chosen technologies, languages, and libraries are well suited for the project's objectives. The selected tools provide a robust foundation for scalability, efficient performance, and ease of maintenance.

4.2 Methodology

4.2.1 Data Collection:

The foundational step in developing the Enhanced Outpass System with Facial Recognition involves the acquisition of a dataset comprising images of individuals. This dataset is crucial for training the facial recognition model to accurately identify and authenticate users. So, the project begins with the collection of images of all the students, stored in the 'images' directory. Each image file in the directory serves as a representation of a specific person, and the file names are ID Numbers of the students.

4.2.2 Preprocessing:

In the realm of facial recognition, preprocessing plays a pivotal role in enhancing the quality and effectiveness of the system. This phase involves a series of steps to standardize and optimize the input data before feeding it into the recognition model.

4.2.2.1 Image Resizing:

Images retrieved from the dataset are resized to a consistent resolution. Standardizing the image dimensions is crucial for ensuring uniformity in facial features, facilitating effective feature extraction during model training.

4.2.2.2 Colour Space Conversion:

The colour space of the images is converted to improve compatibility with the facial recognition algorithm. The OpenCV library's cv2.cvtColor() function is employed to convert images from the default BGR (Blue, Green, Red) format to RGB (Red, Green, Blue), aligning with the requirements of the recognition model.

4.2.3 Face Detection:

The Haar Cascade classifier, available in OpenCV, is utilized for detecting faces within the images. This step is vital for isolating the facial regions, which are subsequently used for feature extraction and encoding.

4.2.4 Face Encoding:

Using the face detection results, facial encodings are generated for each individual. These encodings represent unique numerical vectors that capture the distinctive features of each face. The ‘face_recognition’ library is used in this process. Once you have the encoded list of known faces, the remaining process of face recognition involves real-time face detection, encoding of faces in the current frame, and comparing these encodings with the known faces to determine if there is a match.

4.2.5 Realtime Face Detection and Encoding:

4.2.5.1 Capture Frame:

In the Warden Office Caretaker will Utilize a camera to capture the Students Face or They Can Directly Enter the ID when they enter the ID, It will skips this face recognition step

4.2.5.2 Face Detection:

Apply a face detection algorithm, to identify faces in the current frame.

4.2.5.3 Face Encoding:

Convert the facial region of each detected face to RGB format. Compute the face encodings for each detected face using the face_recognition library. This involves extracting numerical vectors that represent the unique features of each face.

4.2.6 Face Comparison and Recognition:

4.2.6.1 Compare Face Encodings:

Compare the computed face encodings of the detected faces with the known face encodings stored in your encoded list of known faces.

4.2.6.2 Threshold Setting:

Establish a threshold for face recognition. This threshold determines the minimum similarity score required for a match. Adjust the threshold based on the desired balance between false positives and false negatives.

4.2.6.3 Recognition Decision:

Determine whether the detected face matches any known face by comparing the similarity score with the set threshold.

4.2.6.4 Decision Output:

If the similarity score surpasses the threshold, consider the face recognized. Retrieve additional information associated with the recognized face, such as the person's name or ID, from our dataset.

4.2.6.5 Unknown Faces Handling:

If no match is found or the similarity score is below the threshold, categorize the face as "Unknown."

4.2.7 Database Lookup:

The captured image is processed using face recognition techniques in the earlier step. Upon successful recognition, the student's unique ID is extracted.

4.2.7.1 Student Details Fetching:

The system queries a student database, implemented as a CSV file, to retrieve detailed information such as the student's name, year, and branch associated with the recognized ID.

4.2.7.2 Image Display:

The system displays the student's images stored in the database based on the ID Number

4.2.8 Outpass Issuance Process:

The outpass issuance process involves the following stages:

4.2.8.1 Reason Confirmation:

The caretaker validates the student's reason for leaving the campus, adding an additional layer of verification.

4.2.8.2 Outpass Generation:

Upon confirmation, a unique outpass ID is generated and associated with the student's ID. The system records the branch, year, issue timestamp, and marks the out-time as "Still in the Campus."

4.2.8.3 Storing Outpass Details:

The generated outpass details, including the unique outpass ID, student ID, branch, year, issue timestamp, and other relevant information, are stored in a dedicated CSV file.

4.2.8.4 Intime and Outtime Handling:

Since the student is still on campus at the time of issuance, the out-time is marked as "Still in the Campus," and intime is initially set as a single '-'. This allows for easy tracking of the student's movement.

4.2.9. Outpass Confirmation and Storage :

The final stage involves confirming the outpass and updating the outpass details

4.2.9.1 Caretaker Confirmation:

The caretaker reviews the outpass details and, upon verification, confirms the outpass by entering the reason for outpass.

4.2.9.2 Updating Outpass Details:

Once confirmed, the system updates the outpass entry with the actual out-time. The unique outpass ID, branch, year, issue timestamp, and intime remain associated with the student's ID in the CSV file.

4.2.10 Displaying Issued Outpasses:

4.2.10.1 Web Interface:

The system provides a web interface to display a list of issued outpasses. This interface is accessible to authorized personnel, enabling them to monitor and track outpass activities by downloading the file.

4.2.10.2 Outpass Details:

Table An organized table is presented on the web interface, listing relevant information such as the unique outpass ID, student details, issue timestamp, and current status such as out-time and in-time

4.2.11 Audio Generation:

Upon successful issuance of an outpass, the system generates an audio notification using the Google Text-to-Speech (gTTS) library. This audio file contains a message indicating that the “Outpass has been issued successfully” **4.2.12 Verification at Main Gate:**

4.2.12.1 Security Portal

A dedicated portal is set up at the main gate to facilitate the verification process. The security guard interacts with this portal to confirm the outpass details of students entering or leaving the campus.

4.2.12.2 Student Verification:

When a student arrives at the main gate, they provide either their student ID or the unique outpass ID issued to them. The security portal validates this information against the records stored in the outpass CSV file.

4.2.12.3 Confirmation Process:

If the provided ID matches an existing outpass record and the student is leaving the campus, the security guard confirms the departure. Subsequently, the out-time is updated with the current timestamp, indicating the time at which the student left the campus.

4.2.13. Entry Confirmation

4.2.13.1 Returning Students:

When students return to the campus, they again provide their ID or outpass ID at the main gate. The security portal verifies the information against the stored outpass records.

4.2.13.2 In-Time Update:

If the provided ID corresponds to an existing outpass and the student is entering the campus, the security guard confirms the entry. The in-time is then updated with the current timestamp, signifying the time at which the student entered the campus.

4.2.13.3 Real-time Table Updates: All updates, including changes in out-time and in-time, are reflected in the real-time table displayed on the web interface. This ensures that the outpass management system provides up-to-date information on student movements.

Additional Steps for Girls' Outpass Management

4.2.14 Separate Portals for Boys and Girls

There are separate portals for boys and girls within the same page to manage outpasses accordingly.

4.2.15 Parent Scanning for Girls

For girls, the process begins with the parent scanning at the main gate. Upon successful scanning, a row is created in the database.

4.2.16 Warden/Caretaker Step for Girls

After the parent scanning step, the student goes to the caretaker or warden, provides their ID number, and scans their face. Only after this step is the outpass issued to the girl student.

4.2.17 Main Gate Verification for Girls

After the outpass issuance, the student goes to the main gate, provides their ID number, and scans their face again. A "leaving" select box appears, which the security guard ticks, allowing the student to leave the campus.

4.2.18 Entry Confirmation for Returning Girl Students

When the student returns to the campus, they scan their face again at the main gate. This confirms their entry, completing the outpass process.

4.2.19 Real-time Updates for Girls

All updates, including changes in out-time and in-time for girl students, are reflected in the real-time table displayed on the web interface. This ensures that the outpass management system provides up-to-date information on the movements of girl students.

Chapter 5

5. SYSTEM IMPLEMENTATION

5.1 Facial Recognition Setup: Student images and parent images are pre-processed and encoded using facial recognition libraries. The system employs real-time video streaming through OpenCV for capturing facial images during recognition.

5.2 User Interface: The web interface is designed using HTML templates with dynamic content generated using the Jinja templating engine. The interface provides sections for warden login, capturing student faces, issuing outpasses, and main gate security interactions.

5.3 Outpass Issuance: Wardens can issue outpasses by capturing the student's face and providing a reason. A unique outpass ID is generated and stored along with the outpass details in a CSV file.

5.4 Outpass Verification: Security personnel at the main gate can verify outpasses by entering student IDs or outpass IDs. The system checks the validity of the outpass, and if confirmed, updates the outtime or intime.

5.5 Realtime Updates: The web interface displays real-time updates on the status of students (in or out). Timestamps for out-time and intime are updated instantly upon verification.

5.6 Voice Based Interaction: The system supports voice commands for ID verification at the main gate. Voice input is processed to retrieve student details and validate outpasses.

5.7 CSV Data Handling: Student information and outpass records are stored and retrieved using CSV files. CSV handling ensures easy data management and integration with Python.

5.8 Failure Pages: Specific failure pages are displayed in cases where a student is not issued an outpass, or their face is not recognized, or incorrect details are entered.

5.9 Web Camera Integration: OpenCV is used to capture real-time video streams from the web camera, facilitating face recognition and image processing.

5.10 Downloadable CSV: The system allows the download of the outpass records CSV file for offline reference.

5.11 Technologies Used

5.11.1 Programming Languages

• **Python:** A versatile and widely-used programming language known for its readability and extensive libraries, making it suitable for various applications.

5.11.2 Web Framework

• **Flask:** A lightweight and modular web framework for Python, facilitating the development of web applications with simplicity and flexibility.

5.11.3 Image Processing and Computer Vision Libraries

• **OpenCV**: Open Source Computer Vision Library provides tools for image and video processing, offering various computer vision algorithms.

• **face_recognition library:** A high-level face recognition library built on top of dlib and face_recognition, simplifying face recognition tasks.

5.11.4 Frontend Technologies

• **HTML:** Hypertext Markup Language, the standard markup language for creating web pages.

• **CSS:** Cascading Style Sheets, used for styling and layout of web pages.

• **JavaScript:** A scripting language that enables dynamic content and interactive features on web pages.

5.11.5 Templating Engine:

• **Jinja Templating Engine:** A template engine for Python integrated with Flask, allowing dynamic content generation in HTML templates.

5.11.6 Real-Time Video Streaming:

• **OpenCV for video capture:** OpenCV's video capture functionality enables real-time video streaming and processing.

5.11.7 Voice Interaction:

• **gTTS (Google Text-to-Speech):** A Python library and CLI tool to interface with Google Text-to-Speech API, facilitating text-to-speech conversion.

5.11.8 Data Storage and Retrieval:

• **CSV files:** Comma-separated values files are used for storing structured data, convenient for managing student information and outpass records.

5.11.9 Integrated Development Environment (IDE):

• **VS Code (Visual Studio Code):** A lightweight yet powerful code editor developed by Microsoft with support for various programming languages.

Chapter 6

Source code

app.py :

```
from flask import Flask, render_template, Response, request, send_from_directory,redirect, url_for, flash

from flask_login import LoginManager, UserMixin, login_user, logout_user, login_required, current_user
from werkzeug.security import generate_password_hash, check_password_hash
import cv2
import numpy as np
import os
import face_recognition
import csv
from datetime import datetime
import time
from threading import Thread

app = Flask(__name__)

app.secret_key = 'your_secret_key'

# Configure Flask-Login
login_manager = LoginManager()
login_manager.init_app(app)
login_manager.login_view = 'login'

# In-memory user storage (for demonstration purposes)
users = {
'1': {'id': '1', 'username': 'user1', 'email': 'user1@example.com', 'password_hash': generate_password_hash('password1')},
'2': {'id': '2', 'username': 'user2', 'email': 'user2@example.com', 'password_hash': generate_password_hash('password2')}
}

class User(UserMixin):
def __init__(self, id, username, email, password_hash):
self.id = id
self.username = username
self.email = email
self.password_hash = password_hash

def get_id(self):
return self.id
```

```
@login_manager.user_loader
def load_user(user_id):
user_data = users.get(user_id)
if user_data:
return User(user_data['id'], user_data['username'], user_data['email'],
user_data['password_hash'])
return None

@app.route('/')
def homepage():
return redirect(url_for('login'))

@app.route('/home')
@login_required
def home():
return render_template('home.html')

@app.route('/login', methods=['GET', 'POST'])
def login():
if request.method == 'POST':
email = request.form['email']
password = request.form['password']
user = next((u for u in users.values() if u['email'] == email), None)
if user:
print(f"User found: {user}")
if check_password_hash(user['password_hash'], password):
login_user(User(user['id'], user['username'], user['email'], user['password_hash']))
return redirect(url_for('home'))
else:
print("Password check failed")
flash('Invalid email or password')
else:
print("User not found")
flash('Invalid email or password')
return render_template('login.html')

@app.route('/forgot_password', methods=['GET', 'POST'])
def forgot_password():
if request.method == 'POST':
email = request.form.get('email')
username = request.form.get('username')
if username:
user = next((u for u in users.values() if u['username'] == username), None)
if user:
flash('A password reset link has been sent to your email') # For real app, send a
reset link
else:
```

```
flash('Username not found')
elif email:
user = next((u for u in users.values() if u['email'] == email), None)
if user:
flash('A password reset link has been sent to your email') # For real app, send a
reset link
else:
flash('Email not found')
else:
flash('Please provide either username or email')
return render_template('forgot_password.html')

@app.route('/logout')
@login_required
def logout():
logout_user()
return redirect(url_for('login'))

path = '/home/raj/Desktop/correct/static/img/S190185'

images = []
classNames = []
myList = os.listdir(path)
print("Image list:", myList)
for idx, cl in enumerate(myList, start=1):
curImg = cv2.imread(f'{path}/{cl}')
images.append(curImg)
classNames.append(os.path.splitext(cl)[0])

def find_working_camera_index(max_index=10):
for index in range(max_index):
cap = cv2.VideoCapture(index)
if cap.isOpened():
cap.release()
return index
return None

camera_index = find_working_camera_index()
if camera_index is None:
print("Error: No working camera found")
exit()

cap = cv2.VideoCapture(camera_index)
print("Is the camera opened?", cap.isOpened())

if not cap.isOpened():
print("Error: Could not open video device")
```

```
exit()

encodeListKnown = []
threshold = 0.4

def findEncodings(images):
encodeList = []
for img in images:
if img is not None:
img = cv2.cvtColor(img, cv2.COLOR_BGR2RGB)
face_locations = face_recognition.face_locations(img)
if face_locations:
encode = face_recognition.face_encodings(img, face_locations)[0]
encodeList.append(encode)
else:
print("No faces found in the image:", img)
else:
print("Image is None")
return encodeList

# Call findEncodings to populate encodeListKnown
encodeListKnown = findEncodings(images)

def recognize_face(img):
if img is None:
print("Error: img is None")
return []

imgS = cv2.resize(img, (0, 0), None, 0.25, 0.25)
imgS = cv2.cvtColor(imgS, cv2.COLOR_BGR2RGB)

facesCurFrame = face_recognition.face_locations(imgS)
encodesCurFrame = face_recognition.face_encodings(imgS, facesCurFrame)

recognized_faces = []

for encodeFace, faceLoc in zip(encodesCurFrame, facesCurFrame):
matches = face_recognition.compare_faces(encodeListKnown, encodeFace)
faceDis = face_recognition.face_distance(encodeListKnown, encodeFace)

if len(faceDis) == 0:
print("No known faces detected")
name = 'Unknown'
else:
matchIndex = np.argmin(faceDis)

if matches[matchIndex] and faceDis[matchIndex] < threshold:
```

```
name = classNames[matchIndex].upper()
else:
name = 'Unknown'

recognized_faces.append((name, faceLoc))
print("Recognized faces:", recognized_faces)

return recognized_faces

@app.route('/caretaker', methods=['POST', 'GET'])
def index():
return render_template('student_search.html')

@app.route('/caretaker-boys', methods=['POST', 'GET'])
def indexboys():
return render_template('student_search_boys.html')

@app.route('/main-gate', methods=['POST', 'GET'])
def maingate():
return render_template('security_maingate.html')

@app.route('/in-out', methods=['POST'])
def index1():
return render_template('student_search_inout.html')

@app.route('/parent_submit', methods=['POST', 'GET'])
def parentsubmit():
return render_template('parent_capture.html')

@app.route('/student_check', methods=['POST'])
def student_check():
student_id = request.form['id']
found = False
with open('static/outpass.csv', mode='r') as file:
csv_reader = csv.reader(file)
for row in csv_reader:
if student_id in row:
found = True
break
if found:
return render_template('index.html')
else:
return render_template('no_details.html')

@app.route('/student_inout_check', methods=['POST'])
def student_check1():
student_id = request.form['id']
```

```
found = False
outtime = None
intime = None

with open('static/outpass.csv', mode='r') as file:
csv_reader = csv.reader(file)
for row in csv_reader:
if student_id in row:
found = True
outtime = row[1] # Assuming outtime is in the second column
intime = row[2] # Assuming intime is in the third column
if found:
if outtime.isnumeric() and intime.isnumeric():
return render_template('no_details.html', message=f'Outpass not issued to
{student_id}')
else:
return render_template('index_inout.html')
else:
return render_template('no_details.html', message='No details are found!')

@app.route('/upload', methods=['POST'])
def upload():
if request.method == 'POST':
success, img = cap.read()
print(success)
if not success:
print("Error: Failed to capture image")
return render_template('noface.html')
recognized_faces = recognize_face(img)
print("Recognized faces in upload:", recognized_faces)
students_path = 'static/student_details.csv'
details = None
matched_relation = None
for i, j in recognized_faces:
idx = i
j = j
with open(students_path, 'r') as file:
reader = csv.DictReader(file)
detected = False
for i in reader:
print("Student details:", i)
if i['id'] == idx:
details = i
matched_relation = i['relation1']
detected = True
break
elif i['id'] == idx:
details = i
```

```
matched_relation = i['relation2']
detected = True
break
elif i['id'] == idx:
details = i
matched_relation = i['relation3']
detected = True
break
elif i['id'] == idx:
details = i
matched_relation = i['relation4']
detected = True
break
if not detected:
return render_template('noface.html')
# print(matched_relation)
return render_template('caretakerissue.html', recognized_faces=recognized_faces,
details=details, matched_relation=matched_relation)

@app.route('/upload-boys', methods=['POST'])
def uploadboys():
if request.method == 'POST':
success, img = cap.read()
print(success)
if not success:
print("Error: Failed to capture image")
return render_template('noface.html')
recognized_faces = recognize_face(img)
print("Recognized faces in upload:", recognized_faces)
students_path = 'static/student_details.csv'
details = None
matched_relation = None
for i, j in recognized_faces:
idx = i
j = j
with open(students_path, 'r') as file:
reader = csv.DictReader(file)
detected = False
for i in reader:
print("Student details:", i)
if i['id'] == idx:
details = i
detected = True
break
if not detected:
return render_template('noface.html')
# print(matched_relation)
```

```
return render_template('caretakerissue.html', recognized_faces=recognized_faces,
details=details)

@app.route('/upload2', methods=['POST'])
def upload2():
det = None
outpass_path = 'static/outpass.csv'
flag = False
out = False
in_time = False
idx = None
if request.method == 'POST':
success, img = cap.read()
if not success:
print("Error: Failed to capture image")
return render_template('noface.html')
recognized_faces = recognize_face(img)
print("Recognized faces in upload:", recognized_faces)
students_path = 'static/student_details.csv'
details = None
for face_id, _ in recognized_faces:
with open(students_path, 'r') as file:
reader = csv.DictReader(file)
for row in reader:
if (row['relation1'] == str(face_id) or row['id'] == str(face_id) or
row['relation2'] == str(face_id) or row['relation3'] == str(face_id) or
row['relation4'] == str(face_id)):
details = row
idx = row['id']
break
if details:
break

if not details:
return render_template('noface.html')
with open(outpass_path, 'r') as file1:
reader1 = csv.DictReader(file1)
for i in reader1:
if i['outpassid'] == idx or i['id'] == idx:
det = i
flag = True

if det['outtime'] == 'Still in the Campus':
out = True

if det['intime'] == 'Still in a Leave':
in_time = True
# break # Exit loop once the correct entry is found
```

```
if not flag:
return render_template('failure.html', idx=idx)

return render_template('inandout.html', recognized_faces=recognized_faces,
details=det, out=out, in_time=in_time)

@app.route('/upload1', methods=['POST'])
def upload1():
if request.method == 'POST':
success, img = cap.read()
print(success)
if not success:
print("Error: Failed to capture image")
return render_template('noface.html')
recognized_faces = recognize_face(img)
print("Recognized faces in upload:", recognized_faces)
students_path = 'static/student_details.csv'
details = None
for i, j in recognized_faces:
idx = i
j = j
with open(students_path, 'r') as file:
reader = csv.DictReader(file)
detected = False
for i in reader:
print("Student details:", i)
if i['relation1'] == idx or i['relation2'] == idx or i['relation3'] == idx or i['relation4']
== idx:
details = i
detected = True
print("Details:", details)
if not detected:
return render_template('noface.html')
return render_template('maingateissue.html', recognized_faces=recognized_faces,
details=details)
@app.route('/idnumber', methods=['POST'])
def idnum():
idx = request.form.get('id')
students_path = 'static/student_details.csv'
details = None
with open(students_path, 'r') as file1:
reader1 = csv.DictReader(file1)
for i in reader1:
if i['id'] == idx:
details = i
if details is None:
return render_template('noface.html') # or handle as per your application logic
```

```
return render_template('success.html', details=details)

@app.route('/fetch', methods=['POST'])
def fetch():
det = None
idx = request.form.get('id')
outpass_path = 'static/outpass.csv'
flag = False
out = False
in_time = False
with open(outpass_path, 'r') as file1:
reader1 = csv.DictReader(file1)
for i in reader1:
if i['outpassid'] == idx or i['id'] == idx:
det = i
flag = True
if det['outtime'] != 'Still in the Campus' and det['intime'] != 'Still in a Leave':
return render_template('failure.html', details=det)

if det['outtime'] == 'Still in the Campus':
out = True

if det['intime'] == 'Still in a Leave':
in_time = True
if not flag:
return render_template('failure.html', idx=idx)
return render_template('inandout.html', details=det, out=out, in_time=in_time)

def generate_unique_id(student_id):
timestamp = int(time.time())
unique_id = f"SKLM{timestamp}"
return unique_id

outpass_path = '/home/raj/Desktop/correct/static/outpass.csv'

@app.route('/detail1', methods=['POST'])
def detail1():
reason = False
idx = request.form.get('id')
name = request.form.get('name')
branch = request.form.get('branch')
year = request.form.get('year')
issue_time = False
date = False
outtime = 'Still in the Campus'
intime = '-'
```

```
outpassid = False

# Writing to the outpass file
with open(outpass_path, 'a', newline='') as file:
writer = csv.writer(file)
writer.writerow([idx, name, branch, year, issue_time, outtime, date, reason, intime,
outpassid])

# Reading from the outpass file
with open(outpass_path, 'r', newline='') as file:
reader = csv.reader(file)
issued_outpasses = list(reader) # Convert the reader to a list

return render_template('success.html', issued_outpasses=issued_outpasses,
outpassid=outpassid)

@app.route('/detail2', methods=['POST'])
def detail2():
reason = request.form.get('reason')
idx = request.form.get('id')
name = request.form.get('name')
branch = request.form.get('branch')
year = request.form.get('year')
issue_time = str(datetime.now().strftime('%d-%m-%Y %H:%M:%S'))
date = str(datetime.now().date())
outtime_new = 'Still in the Campus' # Default value for new outpass
intime_new = '-' # Default value for new outpass
outpassid = generate_unique_id(idx)

outpass_path = 'static/outpass.csv'
rows = []
fieldnames = ['id', 'name', 'branch', 'year', 'issued_time', 'outtime', 'date', 'reason',
'intime', 'outpassid']
new_entry_needed = True

# Ensure the file exists before attempting to read it
if os.path.exists(outpass_path):
with open(outpass_path, 'r', newline='') as file:
reader = csv.DictReader(file)
fieldnames = reader.fieldnames

# Check if the student has completed their previous outpass
for row in reader:
if row['id'] == idx and (row['outtime'] != 'Still in the Campus' or row['intime'] != '-'):
# Preserve existing record for the student if previous outpass is completed
# return render_template('failure.html', idx=idx, message="You have not completed
your current outpass process.", not_completed=True, not_issued=False)
```

```
rows.append(row)
else:
# Check if the outpassid or issue_time is 'False' and if so, update the row
if row['id'] == idx and (row['outpassid'] == 'False' or row['issued_time'] == 'False'):
row['issued_time'] = issue_time
row['outpassid'] = outpassid
row['reason'] = reason
new_entry_needed = False
rows.append(row)
# Add new record for the new outpass only if no row needs update
if new_entry_needed:
new_row = {
'id': idx,
'name': name,
'branch': branch,
'year': year,
'issued_time': issue_time,
'outtime': outtime_new,
'date': date,
'reason': reason,
'intime': intime_new,
'outpassid': outpassid
}
rows.append(new_row)

# Write all rows back to the file
with open(outpass_path, 'w', newline='') as file:
writer = csv.DictWriter(file, fieldnames=fieldnames)
writer.writeheader()
writer.writerows(rows)

# Reading from the file to pass to the template
with open(outpass_path, 'r', newline='') as file:
reader = csv.reader(file)
issued_outpasses = list(reader) # Convert the reader to a list

return render_template('success.html', issued_outpasses=issued_outpasses,
outpassid=outpassid)

@app.route('/security', methods=['POST', 'GET'])
def security():
idx = request.form.get('id')
status = request.form.get('status')

if not idx or not status:
return render_template('failure.html', message="ID or status missing")

outpass_path = 'static/outpass.csv'
```

```
rows = []

if status == '1': # Leaving
outtime = str(datetime.now().strftime('%d-%m-%Y %H:%M:%S'))
with open(outpass_path, 'r', newline='') as file:
reader = csv.reader(file)
for row in reader:
if len(row) < 9:
print("Row does not have enough columns:", row)
continue
if row[0] == idx:
print("Outpass details:", row)
if row[5] == 'Still in the Campus' and row[8] == '-': # Check if leaving and entering
are empty
row[5] = outtime
row[8] = 'Still in a Leave'
rows.append(row)

elif status == '2': # Entering
intime = str(datetime.now().strftime('%d-%m-%Y %H:%M:%S'))
with open(outpass_path, 'r', newline='') as file:
reader = csv.reader(file)
for row in reader:
if len(row) < 9:
print("Row does not have enough columns:", row)
continue
if row[0] == idx:
print("Outpass details:", row)
if row[5] != '' and row[8] == 'Still in a Leave': # Check if leaving is filled but entering
is empty
row[8] = intime
rows.append(row)

else:
print('Invalid status')
return render_template('failure.html', message="Invalid status")

with open(outpass_path, 'w', newline='') as file:
writer = csv.writer(file)
writer.writerows(rows)

return render_template('success.html', issued_outpasses=rows, status=status)

@app.route('/download_csv')
def download_csv():
directory = 'static'
filename = 'outpass.csv'
return send_from_directory(directory, filename, as_attachment=True)
```

```
@app.route('/video_feed')
def video_feed():
return Response(gen_frames(), mimetype='multipart/x-mixed-replace;
boundary=frame')

def gen_frames():
while True:
success, frame = cap.read()
print(success)
if not success:
print("Failed to read frame from camera")
break

ret, buffer = cv2.imencode('.jpg', frame)
if not ret:
print("Failed to encode frame")
break

frame = buffer.tobytes()
yield (b'--frame\r\n'
b'Content-Type: image/jpeg\r\n\r\n' + frame + b'\r\n')

def run_flask():
app.run(debug=True, use_reloader=False)

if __name__ == '__main__':
flask_thread = Thread(target=run_flask)
flask_thread.start()
```

Login.html

<!DOCTYPE html>

```
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Login</title>
<link rel="stylesheet" href="{{ url_for('static', filename='styles.css') }}">
</head>
<body>
<div class="container">
<h2>Login</h2>
<form action="{{ url_for('login') }}" method="POST">
<label for="email">Email:</label>
<input type="email" id="email" name="email" required>
```

```
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>

<button type="submit">Login</button>
</form>
<p>Forgot your password? <a href="{{ url_for('forgot_password') }}">Reset
here</a></p>
{% with messages = get_flashed_messages() %}
{% if messages %}
<ul>
{% for message in messages %}
<li>{{ message }}</li>
{% endfor %}
</ul>
{% endif %}
{% endwith %}
</div>
</body>
</html>
```

forgot_password.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Forgot Password</title>
<link rel="stylesheet" href="{{ url_for('static', filename='styles.css') }}">
</head>
<body>
<div class="container">
<h2>Forgot Password</h2>
<form action="{{ url_for('forgot_password') }}" method="POST">
<label for="username">Username (optional):</label>
<input type="text" id="username" name="username">

<label for="email">Email (optional):</label>
<input type="email" id="email" name="email">

<button type="submit">Retrieve Password</button>
</form>
<p>Remembered your password? <a href="{{ url_for('login') }}">Login
here</a></p>
{% with messages = get_flashed_messages() %}
{% if messages %}
```

```
<ul>
{% for message in messages %}
<li>{{ message }}</li>
{% endfor %}
</ul>
{% endif %}
{% endwith %}
</div>
</body>
</html>
```

home.html

<!DOCTYPE html>

```
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
background-color: #f4f4f4;
}
#header {
background-color: #a52a2a;
color: #fff;
padding: 20px;
text-align: center;
position: relative;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 80px;
height: 80px;
position: absolute;
top: 50%;
left: 20px;
transform: translateY(-50%);
}
.text {
display: inline-block;
}
```

```
.logout {
position: absolute;
top: 50%;
right: 20px;
transform: translateY(-50%);
}
.logout a {
background-color: #d9534f;
color: #ffffff;
padding: 10px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 16px;
text-decoration: none;
transition: background-color 0.3s ease;
}
.logout a:hover {
background-color: #c9302c;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 30px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 18px;
margin: 10px 0;
transition: background-color 0.3s ease;
}
input[type="submit"]:hover {
background-color: #159a7b;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
position: fixed;
bottom: 0;
width: 100%;
}
#content {
display: flex;
justify-content: space-around;
margin: 30px auto;
width: 90%;
```

```
max-width: 1200px;
}
.section {
background-color: #fff;
text-align: center;
padding: 20px;
border: 1px solid #ddd;
border-radius: 10px;
box-shadow: 0 0 15px rgba(0, 0, 0, 0.1);
width: 45%;
}
.section h1 {
color: #008cba;
margin-bottom: 20px;
}
@media (max-width: 768px) {
#content {
flex-direction: column;
align-items: center;
}
.section {
width: 80%;
margin-bottom: 20px;
}
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
<div class="logout">
<a href="{{ url_for('logout') }}">Logout</a>
</div>
</div>
<div id="content">
<div class="section" id="boysSection">
<h1>Boys</h1>
<form action="/caretaker-boys" method="post">
<input type="submit" value="Warden Office">
</form>
<form action="/in-out" method="post">
<input type="submit" value="In/Out">
```

```
</form>
</div>
<div class="section" id="girlsSection">
<h1>Girls</h1>
<form action="/caretaker" method="post">
<input type="submit" value="Warden Office">
</form>
<form action="/main-gate" method="post">
<input type="submit" value="Main Gate">
</form>
<form action="/in-out" method="post">
<input type="submit" value="In/Out">
</form>
</div>
</div>
<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
</body>
</html>
```

Boys

student_search_boys.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
}
#container {
width: 80%;
margin: 0 auto;
text-align: center;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
```

```
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
text-align: center;
}

#myCanvas {
border: 1px solid #000;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
border-radius: 8px;
margin: 10px;
display: block;
margin-left: auto;
margin-right: auto;
}

form {
margin-top: 20px;
}

img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}

input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}

input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
```

```
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-RK Valley</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="container">
<br>
<h1 style="color: #008cba;">Outpass Issuing Portal</h1>
<img src="{{ url_for('video_feed') }}" alt="Live Video Feed" height="400px"
width="500px">
<form action="/upload-boys" method="post">
<input style="padding: 10px;font-size: large;" type="submit" value="Capture">
</form>
<br>
<h3 style="color: #000;">Or</h3>
<h1 style="color: #008cba;">Try with your Id Number</h1>
<form action="/idnumber" method="post">
<input style="padding: 10px;" type="text" name="id" placeholder="Enter your ID
Number" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit" value="Fetch
Details"><br><br>
</form>
</div>
<div id="footer">
&copy; All Rights Reserved, RGUKT 2023
</div>
</body>
```

```
</html>
```

caretaker_issue.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
input[type="text"]{
width: 100%;
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 10px;
border: none;
border-radius: 5px;
```

```
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
width: 100%;
position: fixed;
}

#content {
text-align: center;
margin: 20px;
width: 100%;
}

#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
}
h3{
color:#a52a2a;
font-size: 25px;
}


</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
```

```
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<div id="studentDetails">
<center>
<h3>Student Details</h3>
<img style="border: 1px solid #000;" src="{{ url_for('static',
filename='img/S190185/'+details['id'] + '.jpg') }}" alt="{{details['name']}}"
width="200px" height="200px">

<h4>{{details['name']}} </h4>
<p>ID: <span>{{details['id']}} </span></p>
<p>Branch: <span>{{details['branch']}} </span></p>
<p>Year: <span>{{details['year']}} </span></p>
<!-- <p>Relation: {{ matched_relation }}</p> -->
</center>
<div style="margin-left: 25%;font-weight: bold;">
<form action="/detail2" method="POST">
<div style="display: inline-flex ;">
<p style="margin-top: -3px;">Reason:</p>  
<textarea name="reason" placeholder="Enter your Reason for Outpass" cols="30"
rows="4"></textarea>
</div>
<br><br>
</div>
<input type="hidden" name="id" value="{{details['id']}}">
<input type="hidden" name="name" value="{{details['name']}}">
<input type="hidden" name="branch" value="{{details['branch']}}">
<input type="hidden" name="year" value="{{details['year']}}">
<center><input type="submit" value="Confirm Outpass"></center>
</form>

</div>
</div>
<br><br>
<div id="footer">
&copy; 2023 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>

<script>
function confirmOutpass() {
// Add your logic here to handle the confirmation of outpass
alert('Outpass confirmed!');
```

```
}
</script>
</body>
</html>
```

noface.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
input[type="text"]{
width: 100%;
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
```

```
padding: 10px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
position: fixed;
width: 100%;
}

#content {
text-align: center;
margin: 20px;
width: 100%;
}

#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
}
h3{
color:#a52a2a;
font-size: 25px;
}


</style>
</head>
<body>
```

```
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<h1>No Face is Recognized</h1>
</div>

<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>

<script>
function confirmOutpass() {
// Add your logic here to handle the confirmation of outpass
alert('Outpass confirmed!');
}
</script>
</body>
</html>
```

Succes.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Issued Outpasses</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
background-color: #fff; /* Background color */
color: #000; /* Text color */
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
```

```
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}

#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom: 0;
width: 100%;
position: fixed;
margin-top: 20px;
}

#content {
text-align: center;
margin: 20px;
}
#issuedOutpasses {
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 80%;
margin-top: 20px;
margin-left: 8%;
margin-bottom: 10%;
}

table {
width: 100%;
border-collapse: collapse;
margin-top: 20px;
```

```
}

th, td {
border: 1px solid #000; /* Border color */
padding: 8px;
text-align: left;
}

th {
background-color:#008cba ; /* Header background color */
color: #fff;
text-align: center;
}

tr:nth-child(even) {
background-color: #f2f2f2; /* Alternate row background color */
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<div id="issuedOutpasses">
<h1 style="color: #008cba;text-align: center;">Issued Outpasses</h1>
<table>
<thead>
<tr>
<th>S.No</th>
<th>RGUKT ID</th>
<th>Outpass ID</th>
<th>Name</th>
<th>Branch</th>
<th>Year</th>
<th>Issued Time</th>
<th>Out Time</th>
<th>Reason</th>
<th>In Time</th>
<!-- <th>Relation</th> -->
</tr>
```

```
</thead>
<tbody>
{% for outpass in issued_outpasses %}
{% if not loop.first %}
<tr>
<td>{{ loop.index - 1 }}</td>
<td>{{ outpass[0] }}</td>
<td>{{outpass[9]}}</td>
<td>{{ outpass[1] }}</td>
<td>{{ outpass[2] }}</td>
<td>{{ outpass[3] }}</td>
<td>{{ outpass[4] }}</td>
<td>{{ outpass[5] }}</td>
<td>{{ outpass[7] }}</td>
<td><center>{{ outpass[8] }}</center></td>
<!-- <td>{{ outpass[10]}}</td> -->
</tr>
{% endif %}
{% endfor %}
</tbody>
</table>
<br>
<a style="display: inline-block; padding: 10px 20px; background-color: #1ABC9C;
color: #000; text-decoration: none; font-size: 16px; border-radius: 5px; transition:
background-color 0.3s ease;"
href="{{ url_for('download_csv') }}" download="issued_outpasses.csv">Download
File</a>
</div>

</div>
{% if outpassid %}
<audio autoplay style="display: none;">
<source src="{{ url_for('static', filename='outpass_notification.mp3') }}"
type="audio/mpeg">
</audio>
{% endif %}
<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
</body>
</html>
```

audio.py

```
from gtts import gTTS

text_to_speak = "Your Outpass has been issued successfully."
language = 'en'
audio_path = 'outpass_notification.mp3'
```

```
tts = gTTS(text=text_to_speak, lang=language, slow=False)
tts.save(audio_path)
print("yesss")
```

student_search_inout.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
}
#container {
width: 100%;
text-align: center;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
position: fixed;
text-align: center;
}
form {
margin-top: 20px;
}
img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
```

```
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="container">
<br>
<h1 style="color:#a52a2a ;">At Main Gate</h1>
<form action="/student_inout_check" method="post">
<input style="padding: 10px;width: 30%;" type="text" name="id"
placeholder="Enter your Outpass ID or RGUKT ID" id=""><br><br>
```

```
<input style="padding: 10px;font-size: large;" type="submit"
value="Submit"><br><br>
</form>
</div>
<div id="footer">
&copy; RGUKT 2024, All Rights Reserved
</div>
</body>
</html>
```

in_and_out.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
input[type="text"]{
width: 100%;
```

```
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 10px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
width: 100%;
}

#content {
text-align: center;
margin: 20px;
width: 100%;
}

#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
}
h3{
color:#a52a2a;
font-size: 25px;
}
```

```
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>
<div id="content">
<div id="studentDetails">
<center>
<h3>Student Details</h3>
<img style="border: 1px solid #000;" src="{{ url_for('static',
filename='/img/S190185/'+details['id'] + '.jpg') }}" alt="{{details['name']}}"
width="200px" height="200px">
<h4>{{details['name']}} </h4>
<p>ID: <span>{{details['id']}} </span></p>
<p>Branch: <span>{{details['branch']}} </span></p>
<p>Year: <span>{{details['year']}} </span></p>
</center>
<div style="margin-left: 25%;font-weight: bold;">
<form action="/security" method="POST">
<div style="display: inline-flex;">
<h2 style="color: #008cba;">Select Student Status:</h2>
{% if out %}
<label style="font-size: 18px; margin-right: 10px;color: #a52a2a;">
<input type="checkbox" name="status" value="1" style="zoom: 1.5;"> Leaving
</label>
{% endif %}
{% if in_time %}
<label style="font-size: 18px;color:#a52a2a">
<input type="checkbox" name="status" value="2" style="zoom: 1.5;"> Entering
</label>
{% endif %}
</div>
<br><br>
<input type="hidden" name="id" value="{{details['id']}}">
<input type="hidden" name="name" value="{{details['name']}}">
<input type="hidden" name="branch" value="{{details['branch']}}">
<input type="hidden" name="year" value="{{details['year']}}">
<center>
<input type="submit" value="Confirm">
</center>
</form>
```

```
</div>
</div>
<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
<script>
function confirmOutpass() {
// Add your logic here to handle the confirmation of outpass
alert('Outpass confirmed!');
}
</script>
</body>
</html>
```

failure.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
```

```
text-align: center;
}
input[type="text"]{
width: 100%;
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 10px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
width: 100%;
position: fixed;
}
#content {
text-align: center;
margin-left: 100px;
margin-top: 30px;
width: 80%;
height: 80%;
}
#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
```

```
}
h3{
color:#a52a2a;
font-size: 25px;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>
<div id="content">
<div id="studentDetails">
{% if not_issued %}
<h1 style="color: #008cba;text-align: center;">Outpass Not Issued to
{{ idx }}</h1>
{% endif %}
{% if not_completed %}
<p style="color: red; text-align: center;">{{ message }}</p>
{% endif %}
</div>
</div>

<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>

</body>
</html>
```

index.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
```

```
padding: 0;
color: #ffffff;
}

#container {
width: 80%;
margin: 0 auto;
text-align: center;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
text-align: center;
}
#myCanvas {
border: 1px solid #000;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
border-radius: 8px;
margin: 10px;
display: block;
margin-left: auto;
margin-right: auto;
}
form {
margin-top: 20px;
}
img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
```

```
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>
<div id="container">
<br>
<h1 style="color: #008cba;">Outpass Issuing Portal</h1>
<img src="{{ url_for('video_feed') }}" alt="Live Video Feed" height="400px"
width="500px">
<form action="/upload" method="post">
<input style="padding: 10px;font-size: large;" type="submit" value="Capture">
</form>
<br>
<h3 style="color: #000;">Or</h3>
<h1 style="color: #008cba;">Try with your Id Number</h1>
<form action="/idnumber" method="post">
```

```
<input style="padding: 10px;" type="text" name="id" placeholder="Enter your ID Number" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit" value="Fetch Details"><br><br>
</form>
</div>
<div id="footer">
&copy; All Rights Reserved, RGUKT 2024
</div>
</body>
</html>
```

issue.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
```

```
input[type="text"]{
width: 100%;
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 10px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
width: 100%;
position: fixed;
}

#content {
text-align: center;
margin: 20px;
width: 100%;
}

#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
}
h3{
```

```
color:#a52a2a;
font-size: 25px;
}


</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<div id="studentDetails">
<center>
<h3>Student Details</h3>
<img style="border: 1px solid #000;" src="{{ url_for('static',
filename='img/S190185/'+details['id'] + '.jpg') }}" alt="{{details['name']}}"
width="200px" height="200px">

<h4>{{details['name']}} </h4>
<p>ID: <span>{{details['id']}} </span></p>
<p>Branch: <span>{{details['branch']}} </span></p>
<p>Year: <span>{{details['year']}} </span></p>
</center>
<div style="margin-left: 25%;font-weight: bold;">
<form action="/detail" method="POST">
<div style="display: inline-flex ;">
<p style="margin-top: -3px;">Reason:</p>  
<textarea name="reason" placeholder="Enter your Reason for Outpass" cols="30"
rows="4"></textarea>
</div>
<br><br>
</div>
<input type="hidden" name="id" value="{{details['id']}}">
<input type="hidden" name="name" value="{{details['name']}}">
<input type="hidden" name="branch" value="{{details['branch']}}">
<input type="hidden" name="year" value="{{details['year']}}">
<center><input type="submit" value="Confirm Outpass"></center>
</form>
</div>
</div>
<br><br>
```

```
<div id="footer">
&copy; 2023 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
<script>
function confirmOutpass() {
// Add your logic here to handle the confirmation of outpass
alert('Outpass confirmed!');
}
</script>
</body>
</html>
```

maingate_issue.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Student Details</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
```

```
input[type="text"]{
width: 100%;
height: 20%;
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 10px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: 20px;
}
#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom:0;
width: 100%;
position: fixed;
}

#content {
text-align: center;
margin: 20px;
width: 100%;
}

#studentDetails {
display: inline-block;
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 60%;
margin-top: 20px;
}
p{
font-size: large;
font-weight: bold;
color: #008cba ;
}
h4{
color: #008cba ;
}
h3{
```

```
color:#a52a2a;
font-size: 25px;
}


</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<div id="studentDetails">
<center>
<h3>Student Details</h3>
<img style="border: 1px solid #000;" src="{{ url_for('static',
filename='img/S190185/'+details['id'] + '.jpg') }}" alt="{{details['name']}}"
width="200px" height="200px">

<h4>{{details['name']}} </h4>
<p>ID: <span>{{details['id']}} </span></p>
<p>Branch: <span>{{details['branch']}} </span></p>
<p>Year: <span>{{details['year']}} </span></p>
</center>
<form action="/detail1" method="POST">
<input type="hidden" name="id" value="{{details['id']}}">
<input type="hidden" name="name" value="{{details['name']}}">
<input type="hidden" name="branch" value="{{details['branch']}}">
<input type="hidden" name="year" value="{{details['year']}}">
<center><input type="submit" value="Confirm Outpass"></center>
</form>
</div>
</div>
<br><br>
<div id="footer">
&copy; 2023 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
<script>
function confirmOutpass() {
// Add your logic here to handle the confirmation of outpass
alert('Outpass confirmed!');
}
```

```
</script>
</body>
</html>
```

no_details.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>No Details Found</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
text-align: center;
}
h1 {
color: #ff0000;
}
</style>
</head>
<body>
<h1>{{ message }}</h1>
</body>
</html>
```

parent_capture.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
}
#container {
width: 80%;
margin: 0 auto;
text-align: center;
```

```
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}

#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
text-align: center;
}
#myCanvas {
border: 1px solid #000;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
border-radius: 8px;
margin: 10px;
display: block;
margin-left: auto;
margin-right: auto;
}

form {
margin-top: 20px;
}

img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
```

```
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="container">
<br>
<h1 style="color: #008cba;">Outpass Issuing Portal</h1>
<img src="{{ url_for('video_feed') }}" alt="Live Video Feed" height="400px"
width="500px">
<form action="/upload1" method="post">
<input style="padding: 10px;font-size: large;" type="submit" value="Capture">
</form>
<br>
<h3 style="color: #000;">Or</h3>
<h1 style="color: #008cba;">Try with your Id Number</h1>
<form action="/idnumber" method="post">
<input style="padding: 10px;" type="text" name="id" placeholder="Enter your ID
Number" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit" value="Fetch
Details"><br><br>
</form>
```

```
</div>
<div id="footer">
&copy; All Rights Reserved, RGUKT 2024
</div>
</body>
</html>
```

parent_csv.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Issued Outpasses</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
box-sizing: border-box;
background-color: #fff; /* Background color */
color: #000; /* Text color */
}


#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}

h1, h2 {
margin: 0;
}
.logo img {
width: 100px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: -59%;
margin-top: -80px;
box-shadow: None;
border: None;
}
```

```
.text {
display: inline-block;
text-align: center;
}

#footer {
background-color: #a52a2a;
color: #fff;
text-align: center;
padding: 10px;
bottom: 0;
width: 100%;
position: fixed;
margin-top: 20px;
}

#content {
text-align: center;
margin: 20px;
}
#issuedOutpasses {
text-align: left;
padding: 20px;
border: 1px solid #000;
border-radius: 8px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
width: 80%;
margin-top: 20px;
margin-left: 8%;
margin-bottom: 10%;
}

table {
width: 100%;
border-collapse: collapse;
margin-top: 20px;
}

th, td {
border: 1px solid #000; /* Border color */
padding: 8px;
text-align: left;
}

th {
background-color:#008cba ; /* Header background color */
color: #fff;
text-align: center;
```

```
}

tr:nth-child(even) {
background-color: #f2f2f2; /* Alternate row background color */
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="content">
<div id="issuedOutpasses">
<h1 style="color: #008cba;text-align: center;">Issued Outpasses</h1>
<table>
<thead>
<tr>
<th>S.No</th>
<th>RGUKT ID</th>
<th>Outpass ID</th>
<th>Name</th>
<th>Branch</th>
<th>Year</th>
<th>Issued Time</th>
<th>Out Time</th>
<th>Reason</th>
<th>In Time</th>
</tr>
</thead>
<tbody>
{% for outpass in issued_outpasses %}
{% if not loop.first %}
<tr>
<td>{{ loop.index - 1 }}</td>
<td>{{ outpass[0] }}</td>
<td>{{outpass[9]}}</td>
<td>{{ outpass[1] }}</td>
<td>{{ outpass[2] }}</td>
<td>{{ outpass[3] }}</td>
<td>{{ outpass[4] }}</td>
<td>{{ outpass[5] }}</td>
```

```
<td>{{ outpass[7] }}</td>
<td><center>{{ outpass[8] }}</center></td>
</tr>
{% endif %}
{% endfor %}
</tbody>
</table>
<br>
<a style="display: inline-block; padding: 10px 20px; background-color: #1ABC9C;
color: #000; text-decoration: none; font-size: 16px; border-radius: 5px; transition:
background-color 0.3s ease;"
href="{{ url_for('download_csv') }}" download="issued_outpasses.csv">Download
File</a>
</div>

</div>
{% if outpassid %}
<audio autoplay style="display: none;">
<source src="{{ url_for('static', filename='outpass_notification.mp3') }}"
type="audio/mpeg">
</audio>
{% endif %}
<div id="footer">
&copy; 2024 Rajiv Gandhi University of Knowledge Technologies. All rights reserved.
</div>
</body>
</html>
```

security_maingate.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
}
#container {
width: 100%;
text-align: center;
}
#header {
```

```
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
position: fixed;
text-align: center;
}
form {
margin-top: 20px;
}
img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
```

```
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="container">
<br>
<h1 style="color:#a52a2a ;">At Main Gate</h1>
<form action="/parent_submit" method="post">
<input style="padding: 10px;width: 30%;" type="text" name="id"
placeholder="Enter your Outpass ID or RGUKT ID" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit"
value="Submit"><br><br>
</form>
</div>
<div id="footer">
&copy; RGUKT 2024, All Rights Reserved
</div>
</body>
</html>
```

security.html

```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
```

```
}

#container {
width: 100%;
text-align: center;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
position: fixed;
text-align: center;
}
form {
margin-top: 20px;
}
img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
```

```
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>

<div id="container">
<br>
<h1 style="color:#a52a2a ;">At Main Gate</h1>
<form action="/fetch" method="post">
<input style="padding: 10px;width: 30%;" type="text" name="id"
placeholder="Enter your Outpass ID or RGUKT ID" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit"
value="Submit"><br><br>
</form>
</div>
<div id="footer">
&copy; RGUKT 2024, All Rights Reserved
</div>
</body>
</html>
```

student_search.html

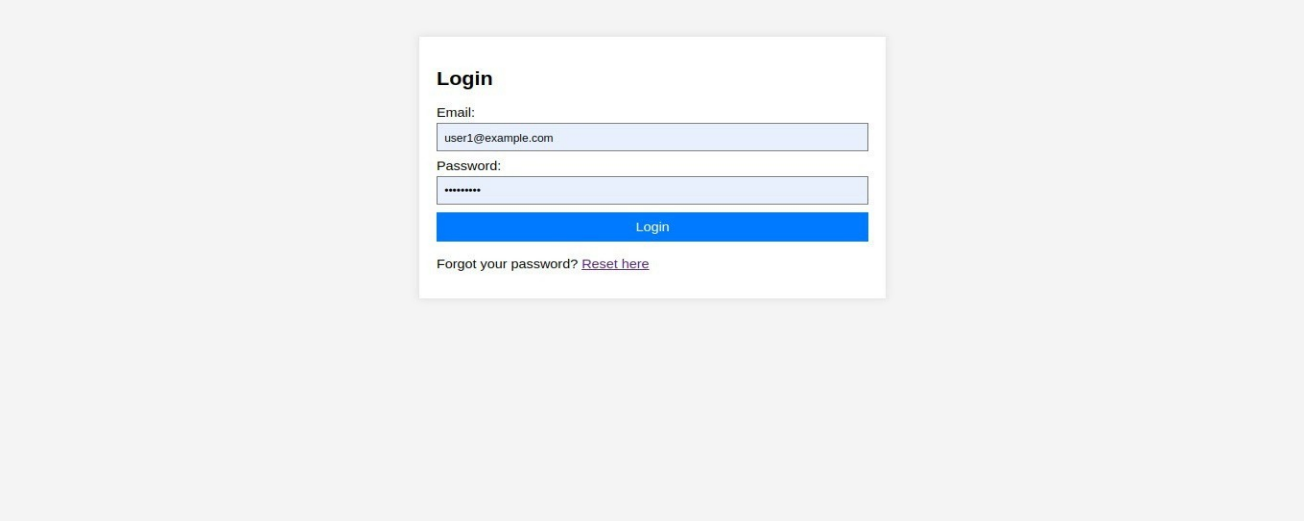
```
<!DOCTYPE html>

<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>Outpass Management System</title>
<style>
body {
font-family: 'Arial', sans-serif;
margin: 0;
padding: 0;
color: #ffffff;
}
#container {
width: 100%;
text-align: center;
}
#header {
background-color: #a52a2a;
color: #fff;
padding:20px;
text-align: center;
}
#footer {
background-color: #a52a2a;
padding: 10px;
color: #ffffff;
bottom: 0;
width: 100%;
position: fixed;
text-align: center;
}
form {
margin-top: 20px;
}
img {
border: 1px solid #0d0d0d;
border-radius: 10px;
display: block;
margin-left: auto;
margin-right: auto;
margin-top: 20px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
input[type="submit"] {
background-color: #1ABC9C;
color: #ffffff;
padding: 15px 20px;
border: none;
border-radius: 5px;
cursor: pointer;
font-size: large;
}
```

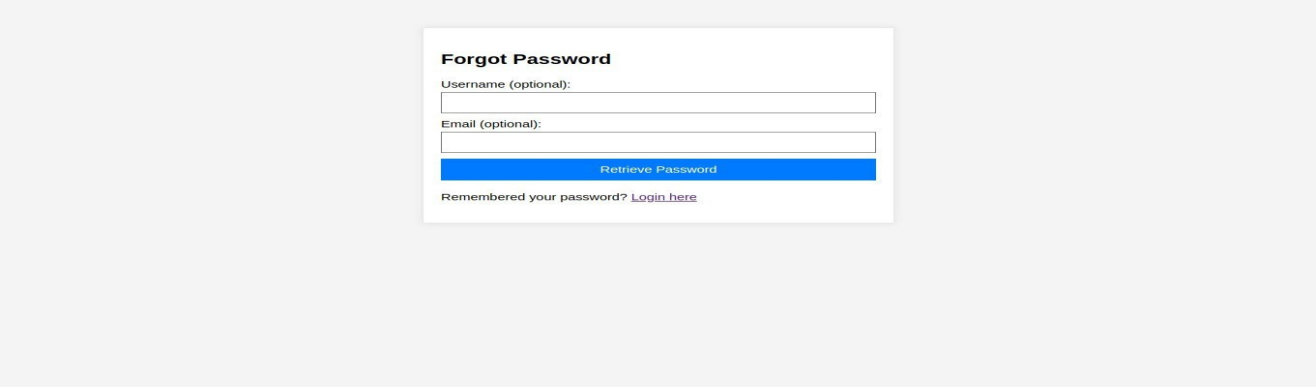
```
input[type="submit"]:hover {
background-color: #008cba;
}
h1, h2 {
margin: 0;
}
.logo img {
width: 120px; /* Adjust the width as needed */
height: 100px; /* Maintain aspect ratio */ /* Adjust the margin as needed */
margin-left: 15%;
margin-top: -95px;
box-shadow: None;
border: None;
}
.text {
display: inline-block;
text-align: center;
}
</style>
</head>
<body>
<div id="header">
<div class="text">
<h2>Rajiv Gandhi University of Knowledge Technologies-Srikakulam</h2><br>
<h2>Facial Recognition Outpass Management System</h2>
</div>
<div class="logo">
<img src="{{ url_for('static', filename='logo.png') }}" alt="Logo">
</div>
</div>
<div id="container">
<br>
<h1 style="color:#a52a2a ;">At Main Gate</h1>
<form action="/student_check" method="post">
<input style="padding: 10px;width: 30%;" type="text" name="id"
placeholder="Enter your Outpass ID or RGUKT ID" id=""><br><br>
<input style="padding: 10px;font-size: large;" type="submit"
value="Submit"><br><br>
</form>
</div>
<div id="footer">
&copy; RGUKT 2024, All Rights Reserved
</div>
</body>
</html>
```

OUTPUT IMAGES:

login page



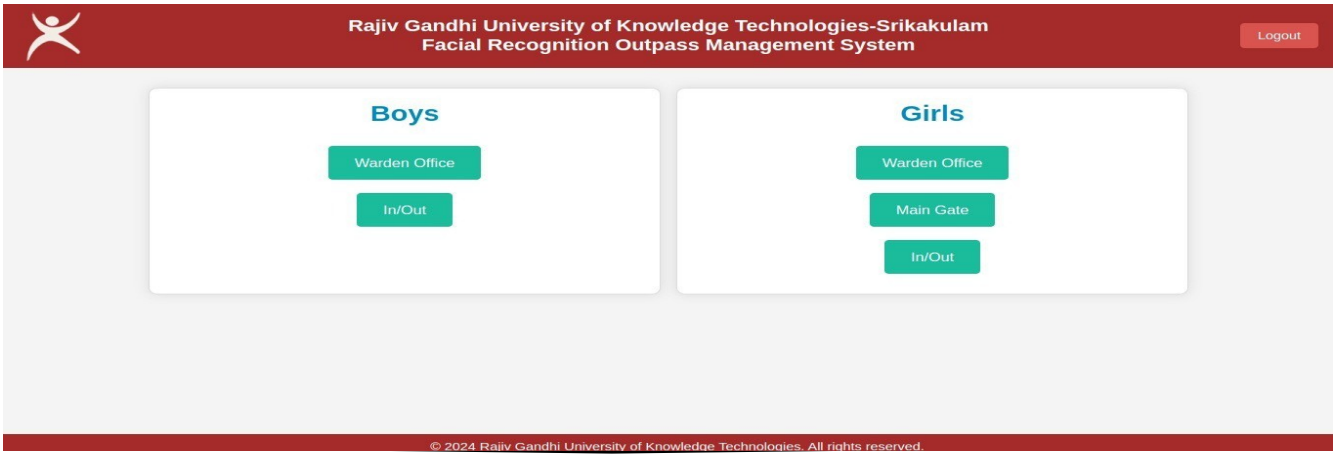
if user forgot password



home page:

if student is a boy

click at warden office in boys



Rajiv Gandhi University of Knowledge Technologies-RK Valley

Facial Recognition Outpass Management System

Outpass Issuing Portal

Capture

Student Details

S SURYA PRAKASH

ID: S191072

Branch: CS

Year: Engg-3

Reason: festival

Confirm Outpass

6	S191072	SKLM1720422963	S SURYA PRAKASH	CS	Engg-3	08-07-2024 12:46:03	08-07-2024 12:46:59	asdfgh	08-07-2024 12:47:33
7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	Still in the Campus	JG	-
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	Still in the Campus	festival	-

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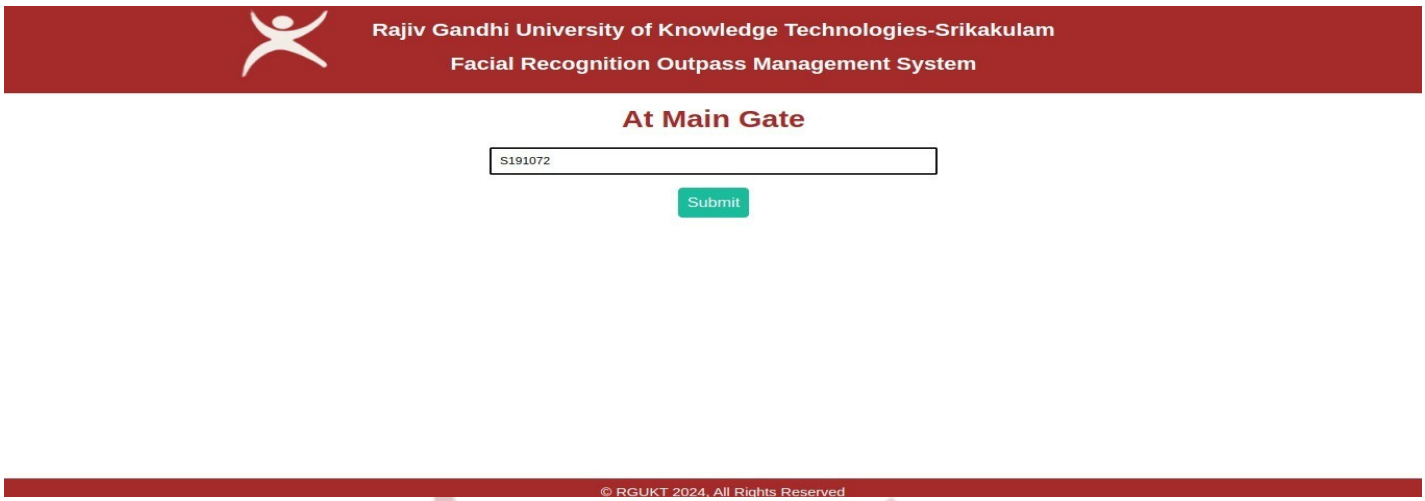
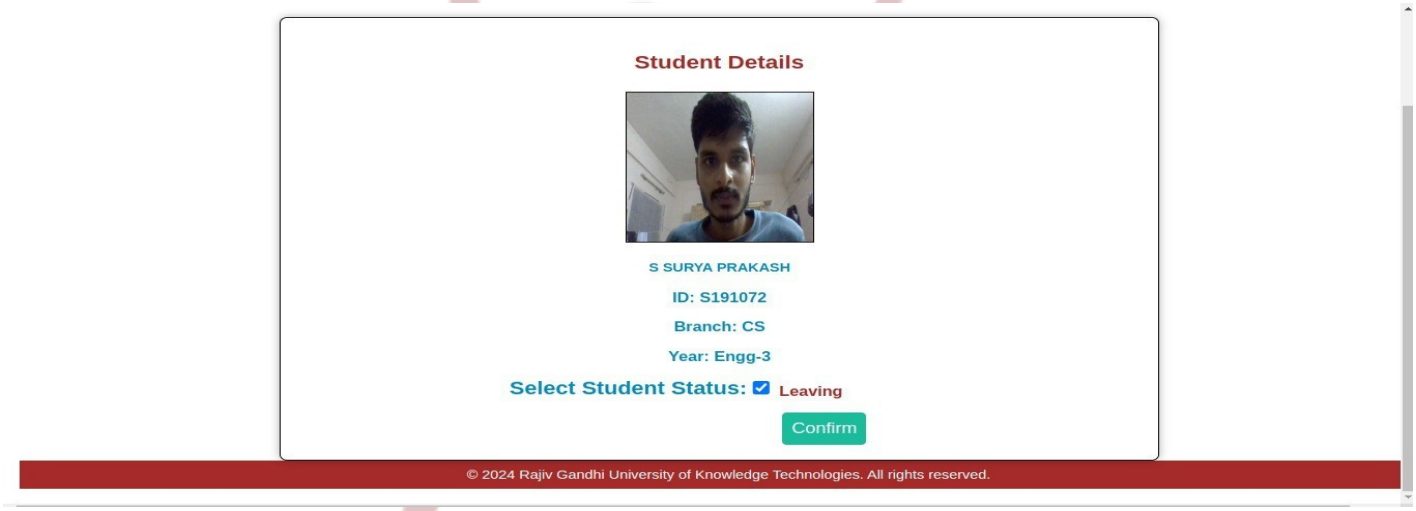
boy leaving : at main gate

click at inout in boys





6	S191072	SKLM1720422963	S SURYA PRAKASH	CS	Engg-3	08-07-2024 12:46:03	08-07-2024 12:46:59	asdfgh	08-07-2024 12:47:33
7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	Still in the Campus	JG	-
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	Still in a Leave

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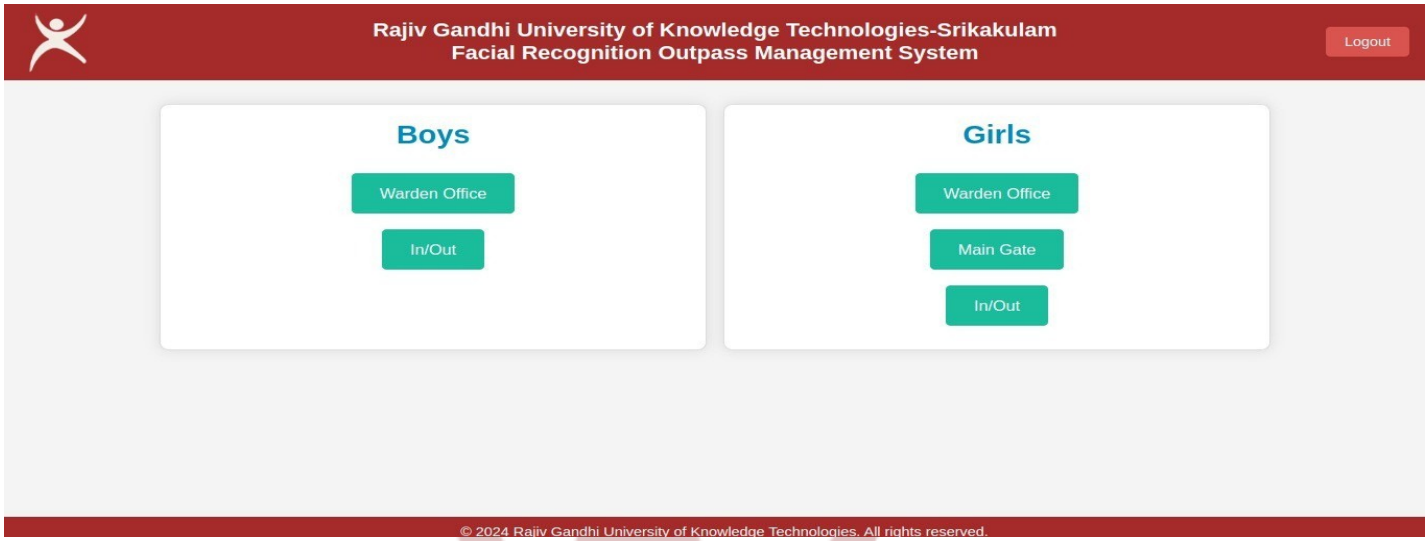
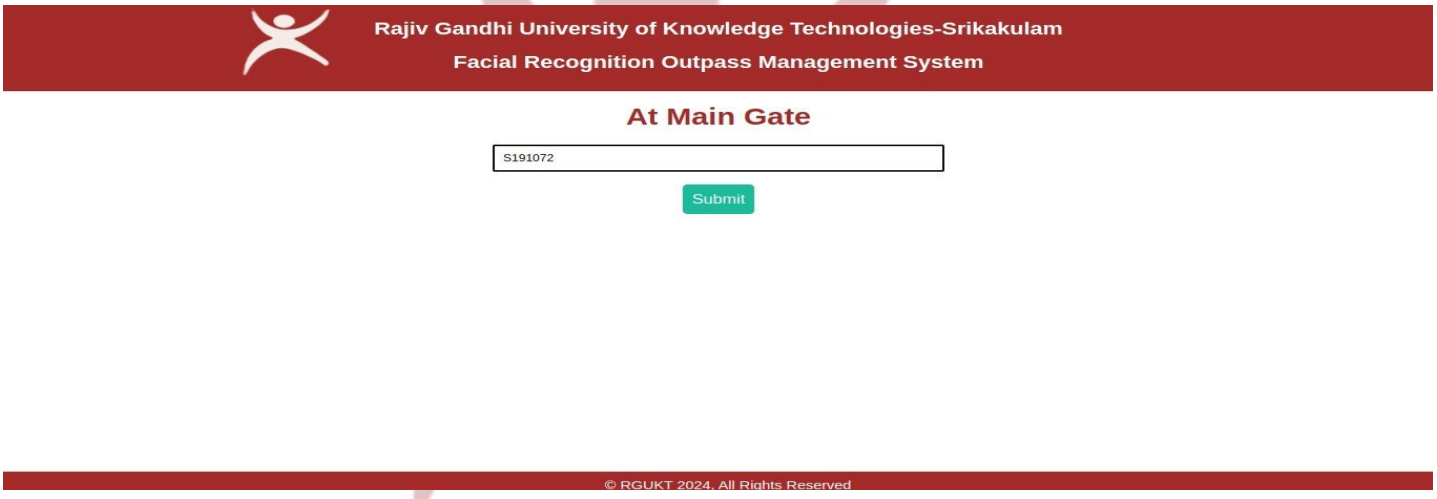
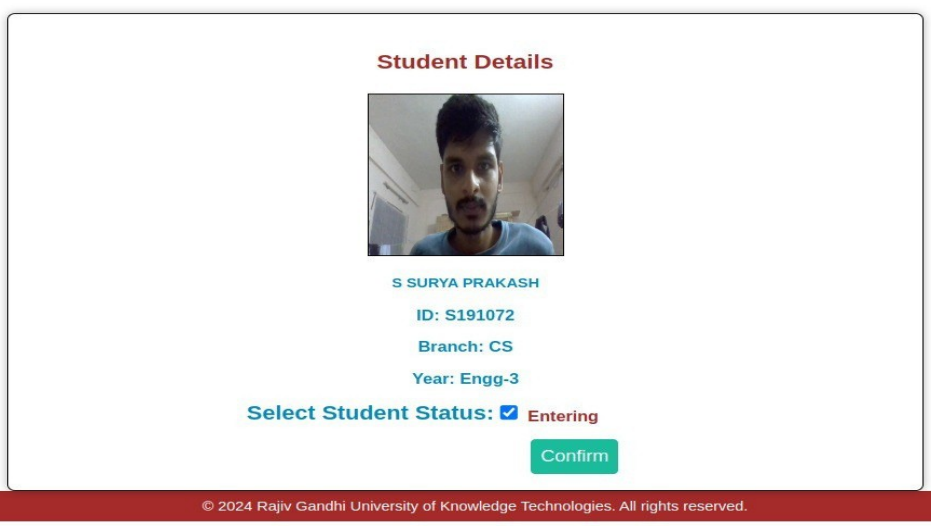
Entering into campus:

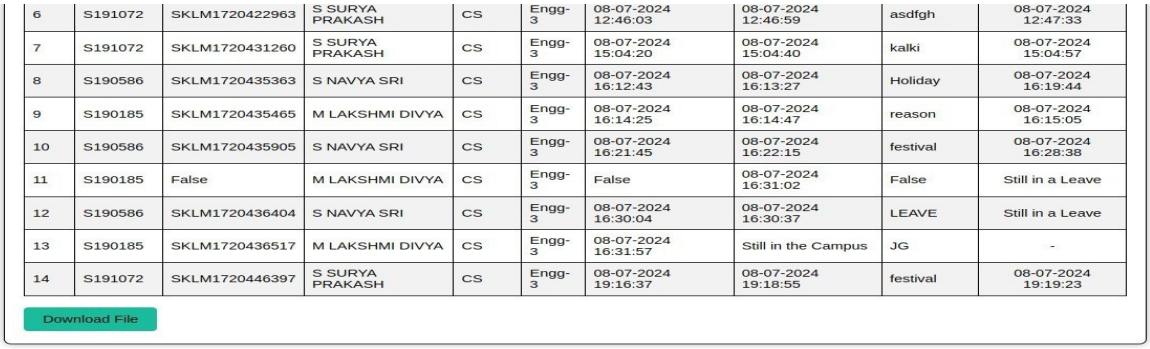
click inout button







his total leave update is stored along with date of leaving, date of arrival



6	S191072	SKLM1720422963	S SURYA PRAKASH	CS	Engg-3	08-07-2024 12:46:03	08-07-2024 12:46:59	asdfgh	08-07-2024 12:47:33
7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	Still in the Campus	JG	-
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	08-07-2024 19:19:23

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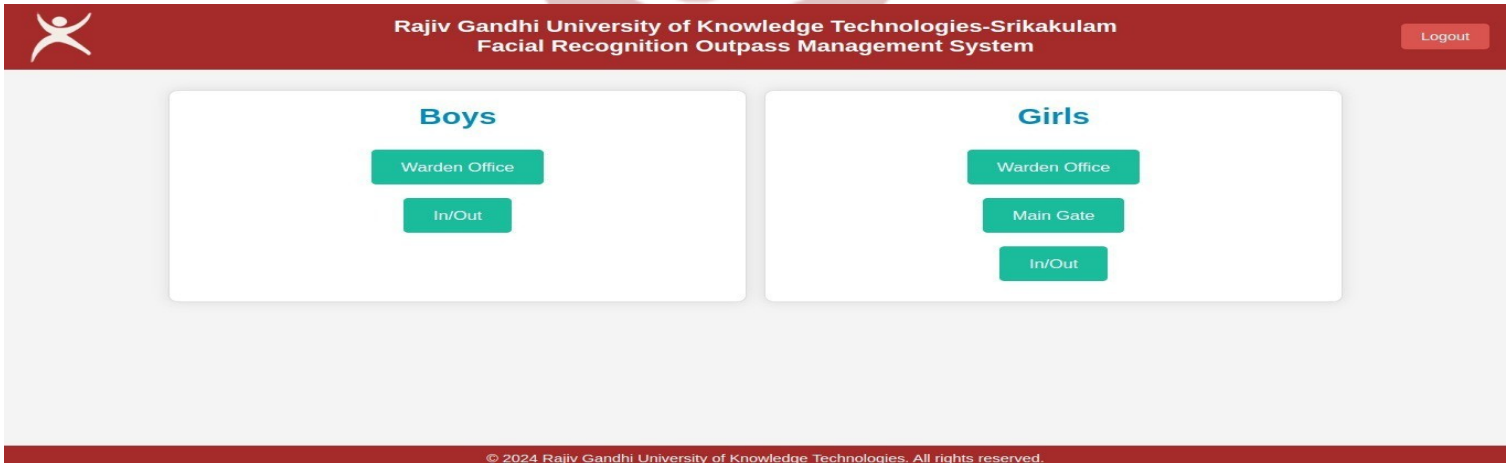
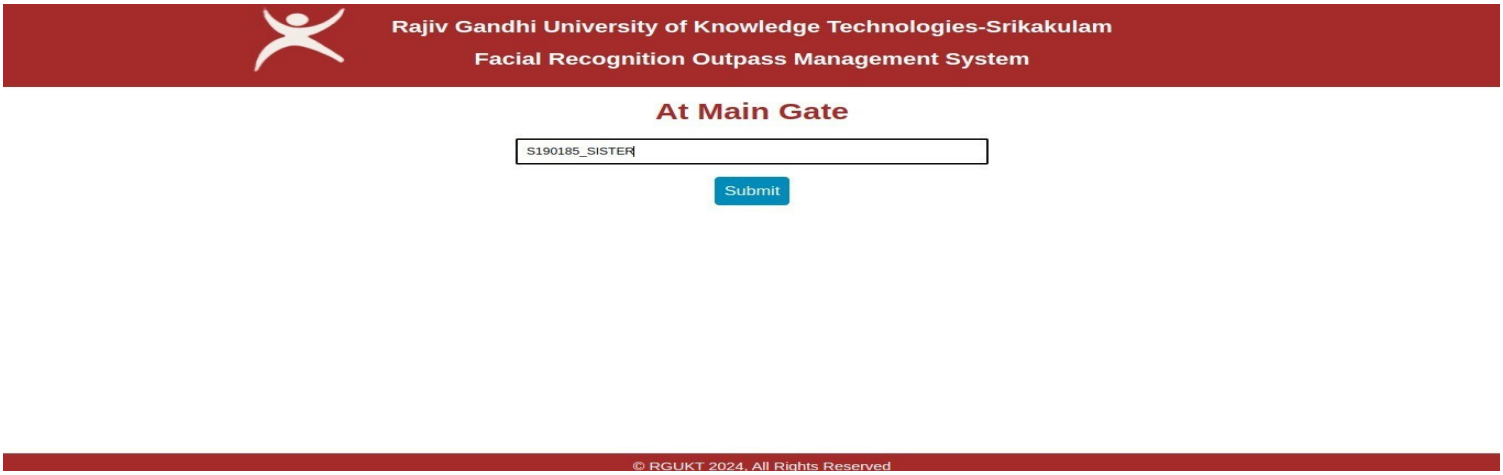
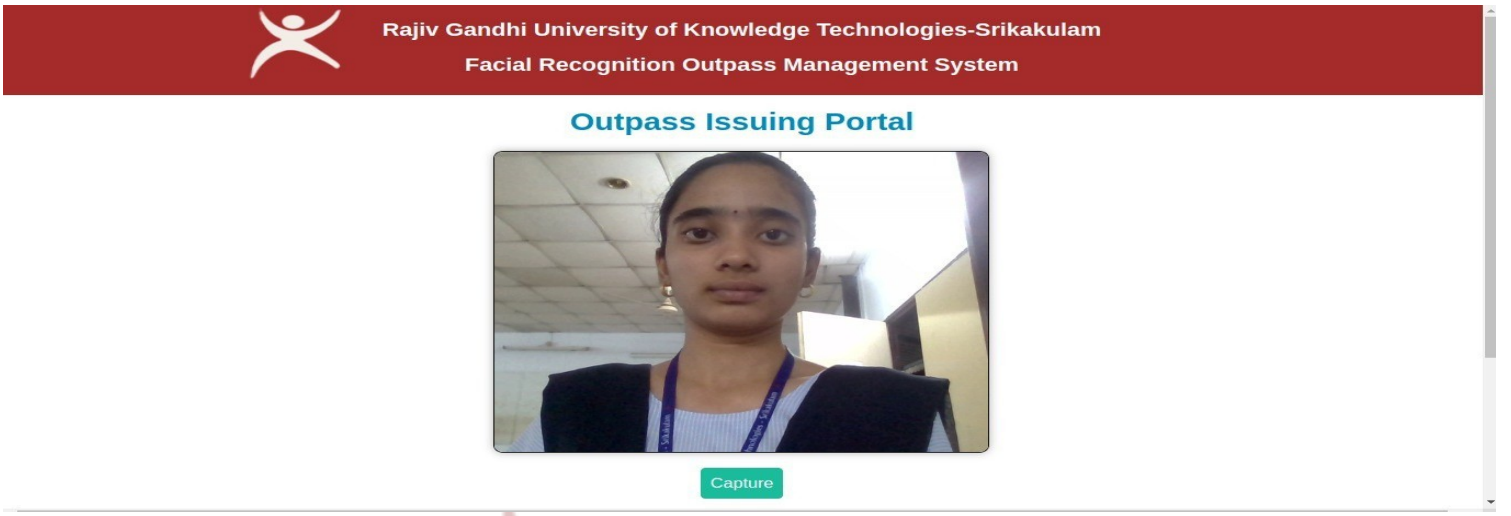
Home page

girl outpass: click at main gate

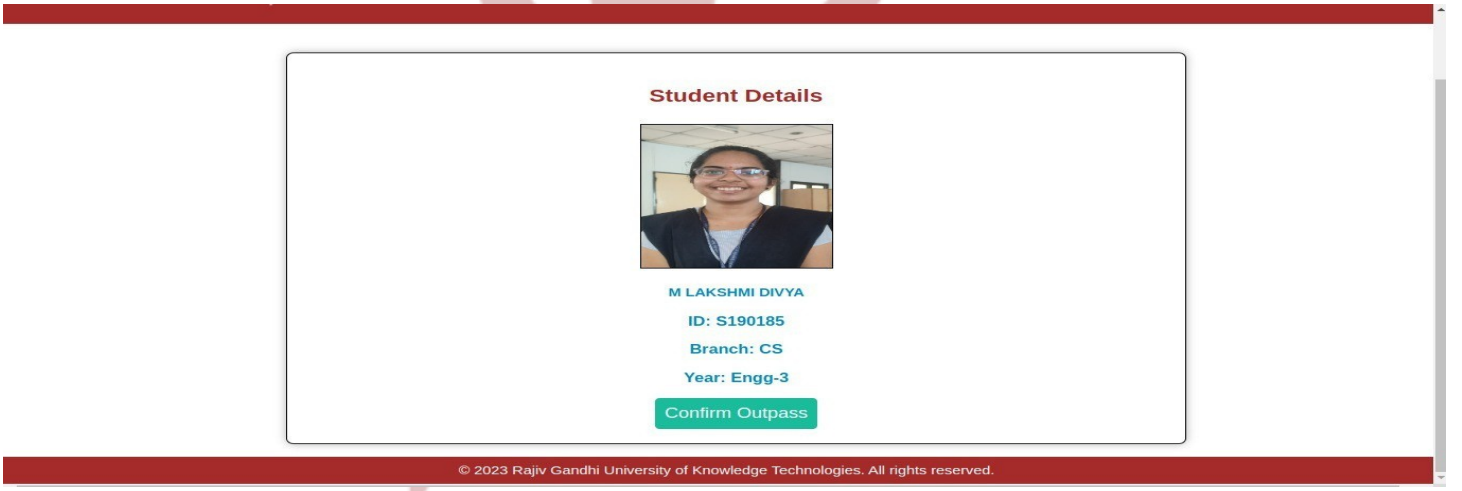


for a girl student concerned parent should arrive





student data related to concerned parent will appear



list will be updated

7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	Still in the Campus	JG	-
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	08-07-2024 19:19:23
15	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	Still in the Campus	False	-

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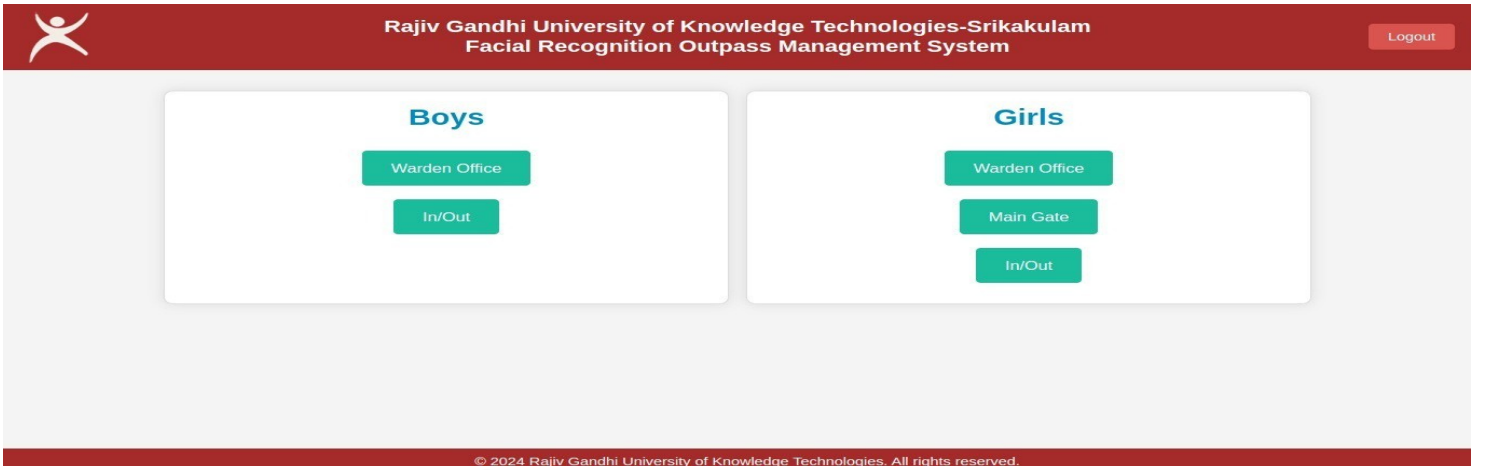
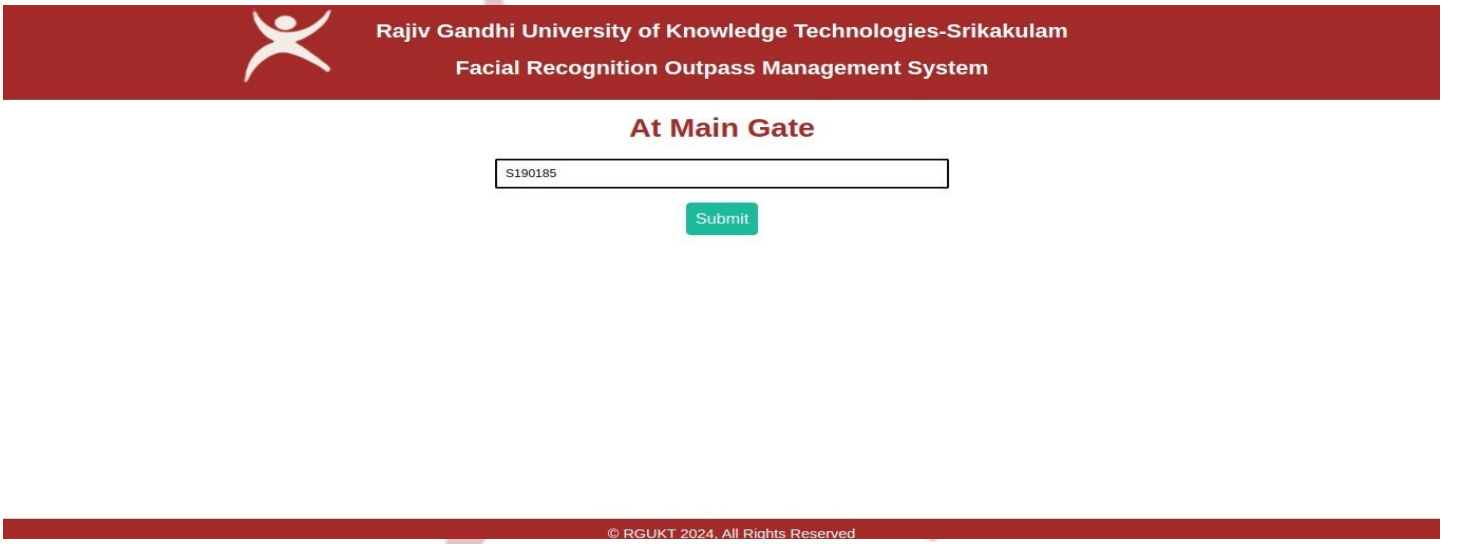
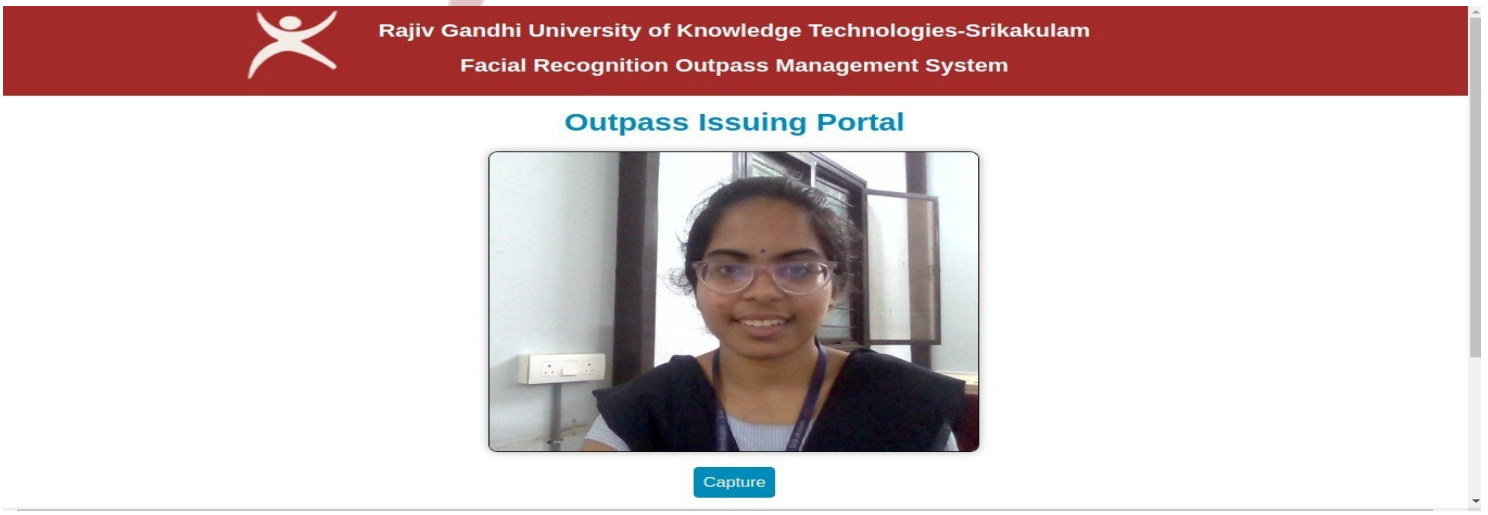
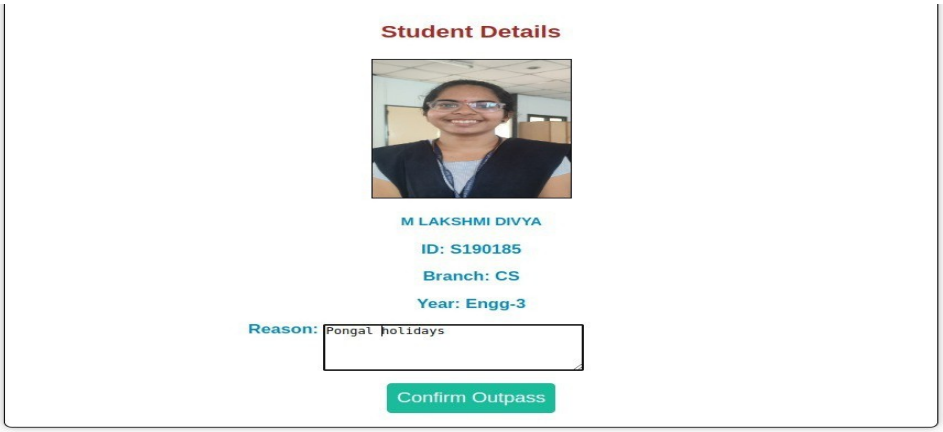
girl student at warden office:

click at warden office









7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
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9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	08-07-2024 19:23:57	JG	Still in a Leave
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	08-07-2024 19:19:23
15	S190185	SKLM1720446787	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 19:23:07	08-07-2024 19:23:57	Pongal holidays	Still in a Leave

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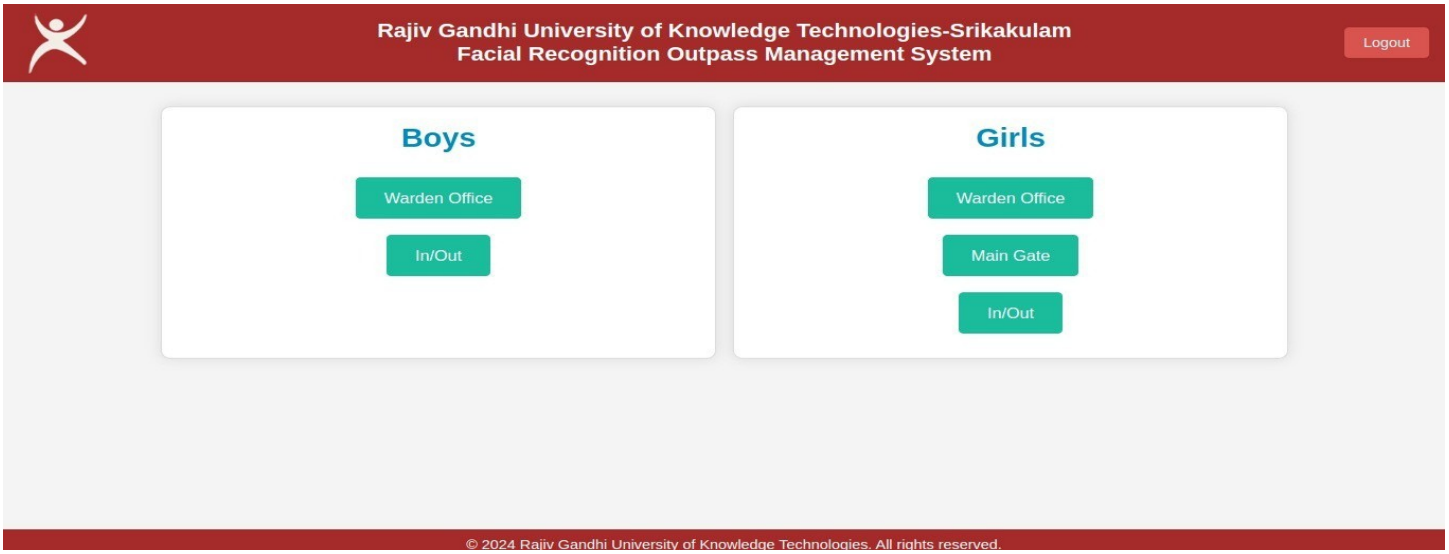
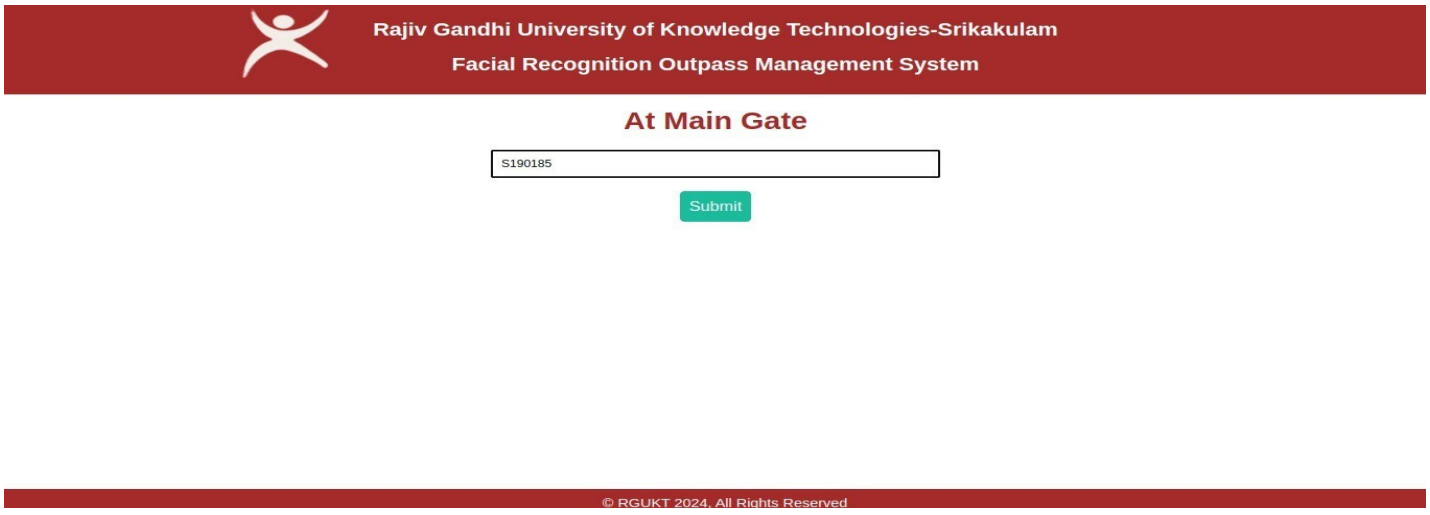
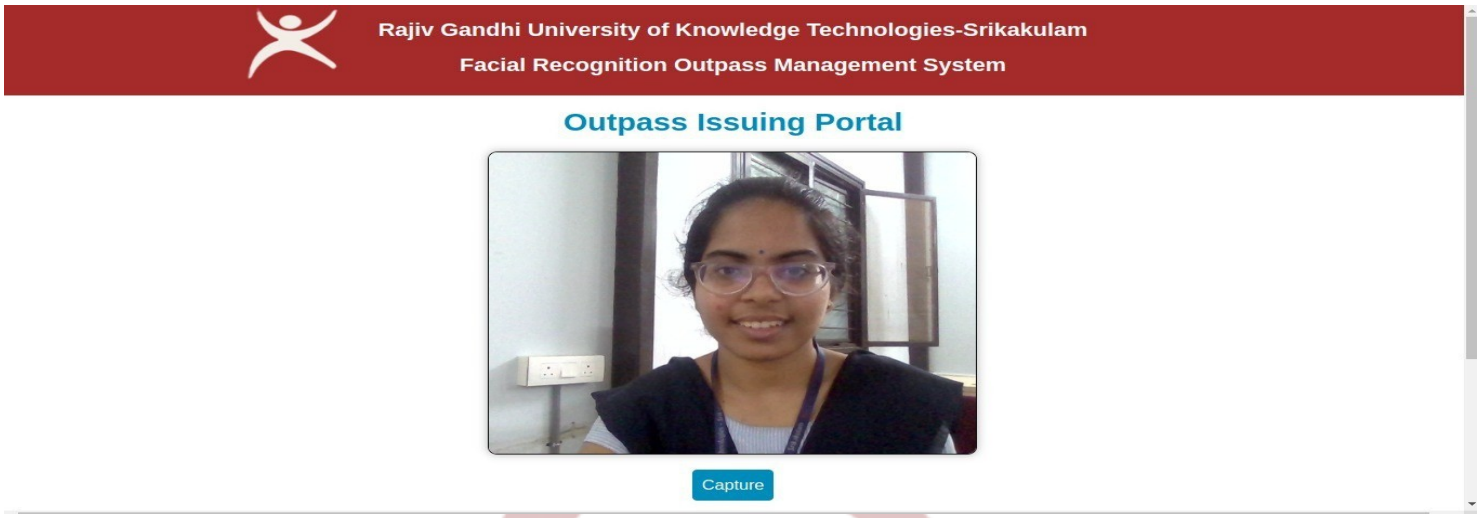
At main gate

girl student : leaving

click at inout







after leaving the campus the details updated(time of leaving)

7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
9	S190185	SKLM1720435465	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:14:25	08-07-2024 16:14:47	reason	08-07-2024 16:15:05
10	S190586	SKLM1720435905	S NAVYA SRI	CS	Engg-3	08-07-2024 16:21:45	08-07-2024 16:22:15	festival	08-07-2024 16:28:38
11	S190185	False	M LAKSHMI DIVYA	CS	Engg-3	False	08-07-2024 16:31:02	False	Still in a Leave
12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	08-07-2024 19:23:57	JG	Still in a Leave
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	08-07-2024 19:19:23
15	S190185	SKLM1720446787	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 19:23:07	08-07-2024 19:23:57	Pongal holidays	Still in a Leave

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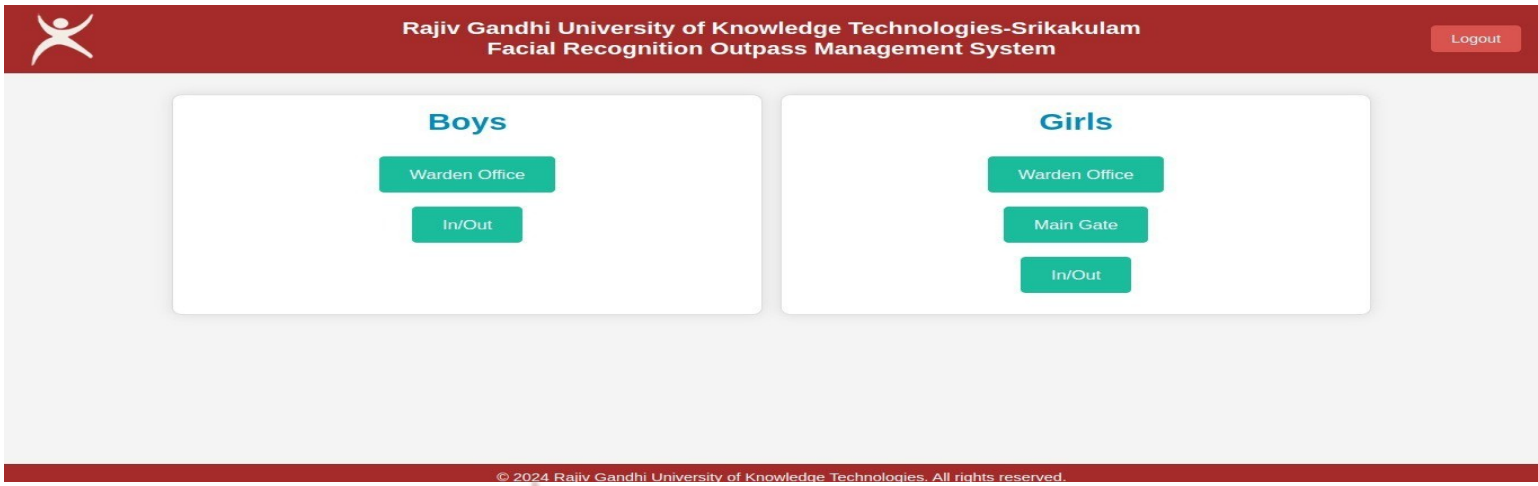
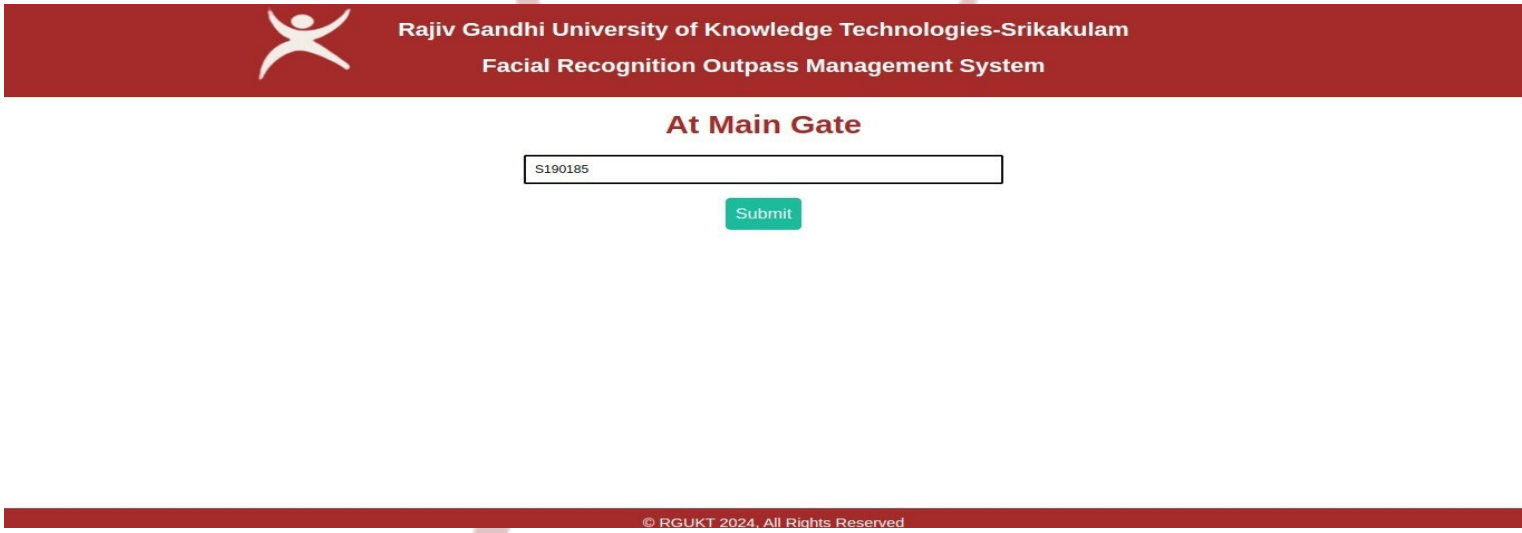
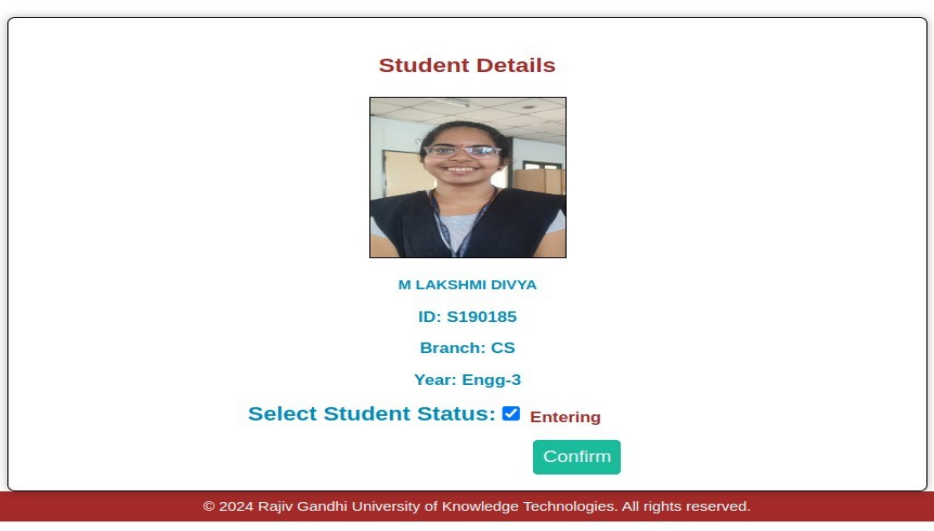
girl student entering into campus(click at inout)







7	S191072	SKLM1720431260	S SURYA PRAKASH	CS	Engg-3	08-07-2024 15:04:20	08-07-2024 15:04:40	kalki	08-07-2024 15:04:57
8	S190586	SKLM1720435363	S NAVYA SRI	CS	Engg-3	08-07-2024 16:12:43	08-07-2024 16:13:27	Holiday	08-07-2024 16:19:44
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12	S190586	SKLM1720436404	S NAVYA SRI	CS	Engg-3	08-07-2024 16:30:04	08-07-2024 16:30:37	LEAVE	Still in a Leave
13	S190185	SKLM1720436517	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 16:31:57	08-07-2024 19:23:57	JG	08-07-2024 19:24:33
14	S191072	SKLM1720446397	S SURYA PRAKASH	CS	Engg-3	08-07-2024 19:16:37	08-07-2024 19:18:55	festival	08-07-2024 19:19:23
15	S190185	SKLM1720446787	M LAKSHMI DIVYA	CS	Engg-3	08-07-2024 19:23:07	08-07-2024 19:23:57	Pongal holidays	08-07-2024 19:24:33

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CONCLUSION :

The proposed Enhanced Outpass System with Facial Recognition demonstrates significant improvements in accuracy and efficiency for the outpass issuance process. With high recognition rates exceeding 80% on the evaluation dataset, the system ensures reliable verification of both student and parent identities, effectively addressing the drawbacks of manual verification. By integrating facial recognition technology with a streamlined interface and using CSV files for data storage, the system enhances the speed and convenience of issuing outpasses. Automation reduces administrative overhead by eliminating paperwork and manual documentation. Real-time tracking of student movements through detailed outpass logs enables improved monitoring and attendance analysis. Overall, the system modernizes traditional paper-based administration in educational institutions, increasing transparency, tightening security, and reducing workload. The dual verification process involving both student and parent enhances security, while the automation ensures efficiency and convenience. Continued refinement and feature expansion will further enhance its potential for scalable deployment across academic campuses.

Future Enhancements:

1 Integrate outpass duration tracking:

- Allow specifying a time duration for the outpass
- Automated alerts before outpass expiry for student to return.

2 Notification system:

- Send automated SMS and email notifications to student and parents when student leaves or enters campus.

3 Enhanced facial recognition accuracy

- Expand dataset diversity for better model training
- Employ advanced neural network architectures like CNNs
- Retrain model periodically on new data

4 Student dashboard

- Provide a portal for students to self-track outpass usage
- Dashboard showing their in/out times, outpass frequency

References

[1] Jones, A. et al. (2021). "face_recognition: Simple Face Recognition Library for Python." PyPI Python Package Index. Available online: https://pypi.org/project/facerecognition/

[2] Pallets Projects. (2023). "Flask Documentation." Pallets Projects. Available online: https://flask.palletsprojects.com/en/latest/

[3] OpenCV. (2023). "OpenCV Documentation." OpenCV. Available online: https://docs.opencv.org/5.x/