

Project Summary: Revolutionizing Public Transportation with Facial Recognition Technology

Title : JourneyEase(Face Recognition Access Control Technology)

Introduction :

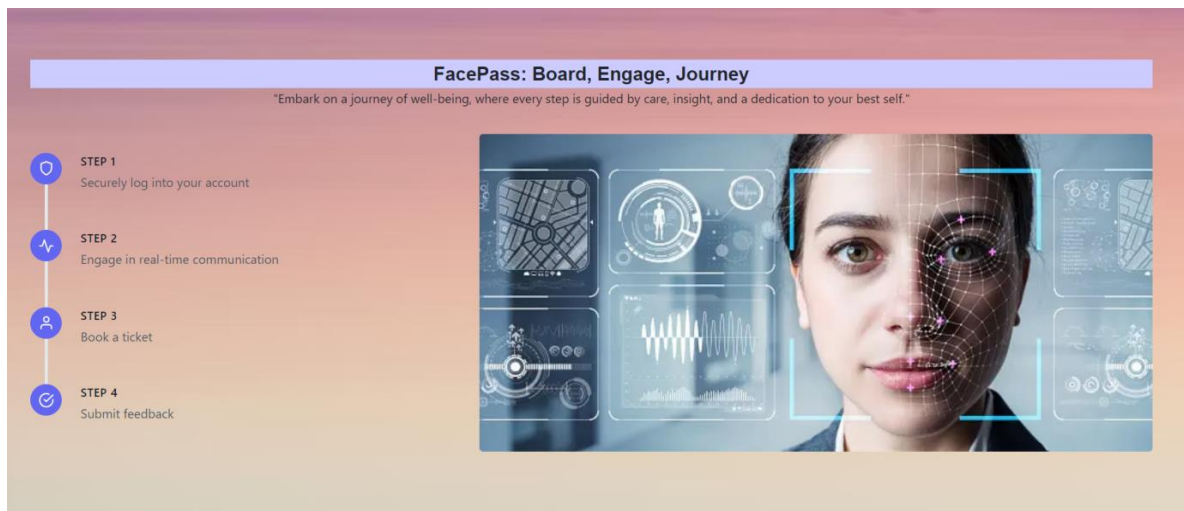
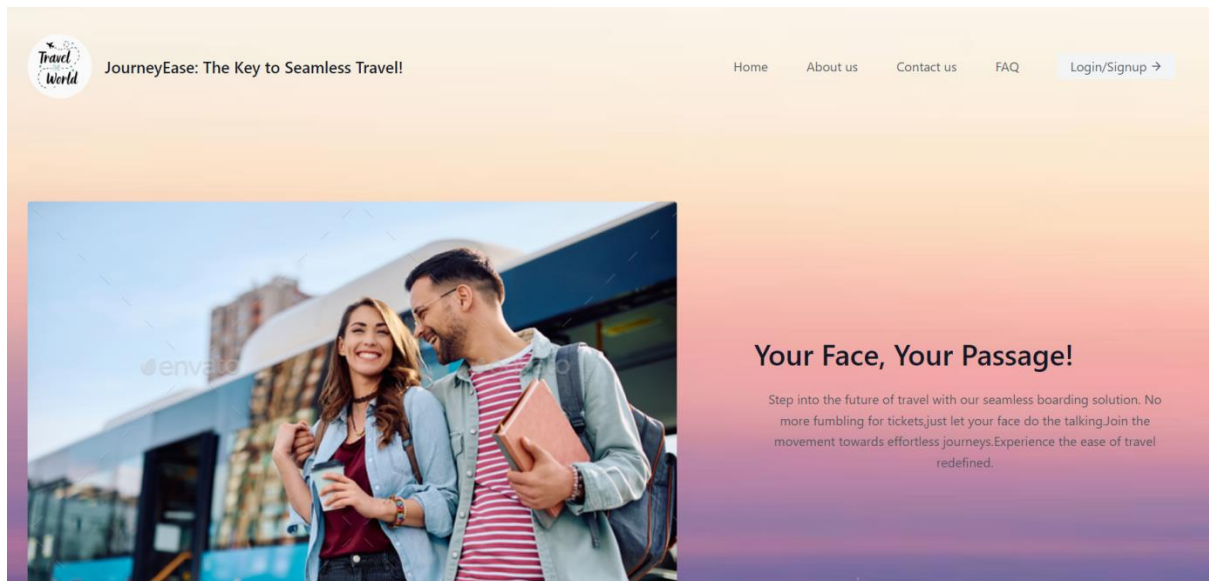
In the realm of public transportation, conventional systems grapple with boarding delays, fare evasion, and accessibility barriers. Our project introduces a pioneering solution: integrating facial recognition technology to streamline boarding processes. By replacing traditional ticket checks with contactless facial recognition, we aim to enhance efficiency, bolster security, and ensure inclusive access for all passengers. This innovative approach revolutionizes the passenger experience, reducing wait times, minimizing revenue losses, and fostering a more welcoming and accommodating transportation environment. Through facial recognition, we envision a future where boarding becomes seamless, payments are effortless, and public transportation embraces a new era of efficiency and accessibility.

Implementation steps:

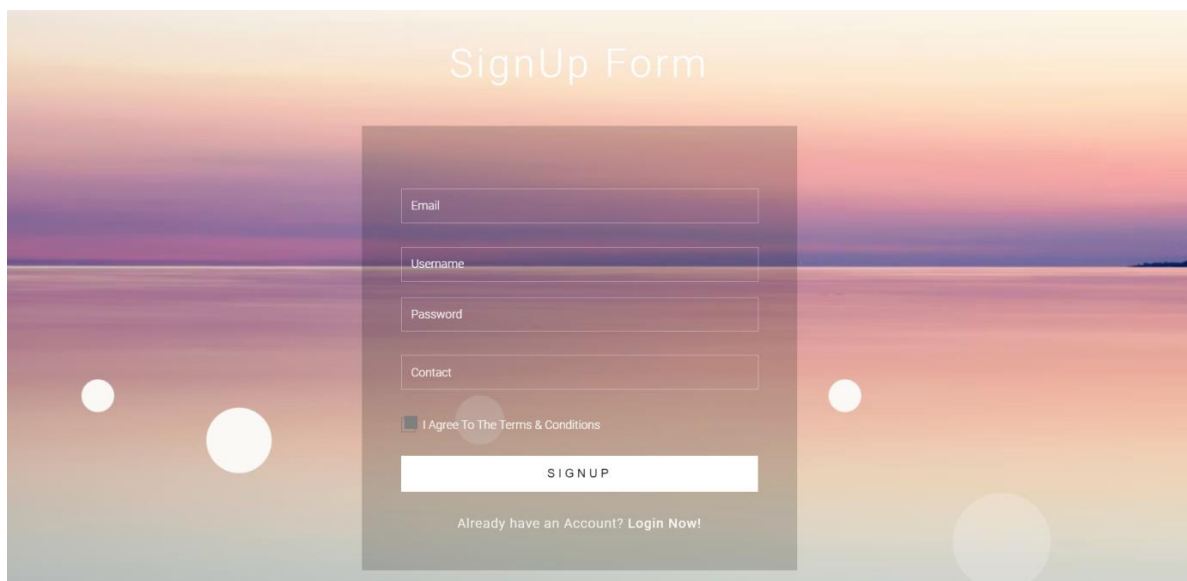
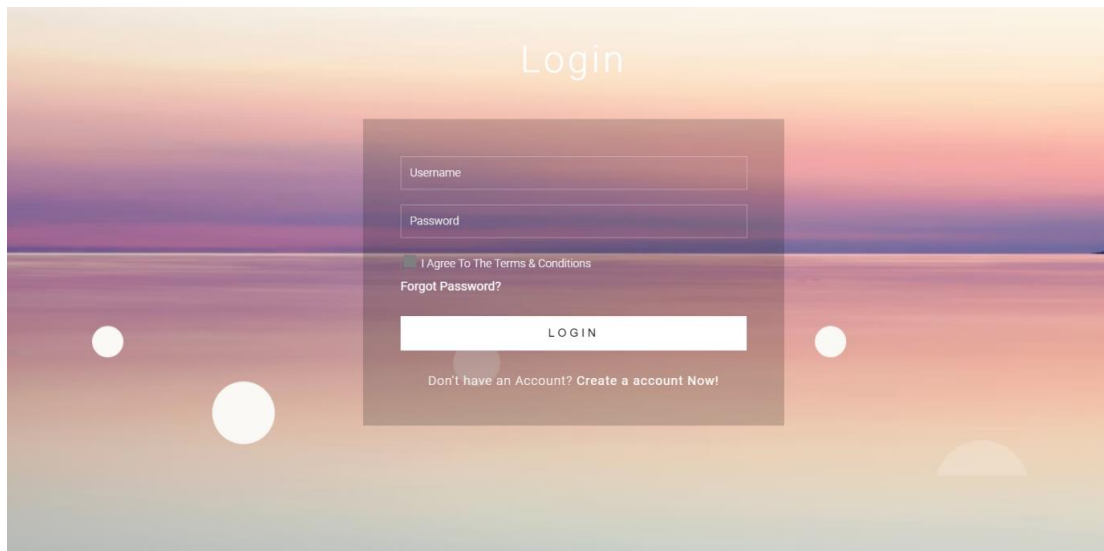
- ✓ **Payment through QR Code:** Users make payments for their tickets through our website. Then we will provide them a QR code through which users will make payment.
- ✓ **Photo Capture and Database Storage:** As part of the ticketing process, users are prompted to capture their photo using their device's camera. This photo is then securely saved into our database, linked to the user's account or ticket information.
- ✓ **Facial Recognition Authentication:** After successful ticket booking, users stand in front of a facial recognition scanner installed at the boarding point. The system captures the user's facial image in real-time.
- ✓ **Comparison and Authentication:** The captured facial image is compared against the stored photo in the database, verifying the user's identity. If the facial recognition system successfully matches the live image with the stored photo, the user is authenticated.
- ✓ **Access Granted:** Upon successful authentication, the system grants access for boarding. Security doors or turnstiles are unlocked, allowing the user to proceed onto the vehicle.
- ✓ **Ticketless Boarding Experience:** With this seamless integration of QR code ticketing and facial recognition authentication, users no longer need to carry physical tickets or electronic passes. The entire boarding process is streamlined and ticketless, enhancing convenience for passengers.
- ✓ **Security and Efficiency:** By combining QR code ticketing with facial recognition authentication, our system ensures both security and efficiency in the boarding process. Unauthorized access is prevented, and boarding delays are minimized, leading to a smoother and more enjoyable travel experience for passengers.

Project Description/Steps :

1) JourneyEase : The key to Seamless Travel!

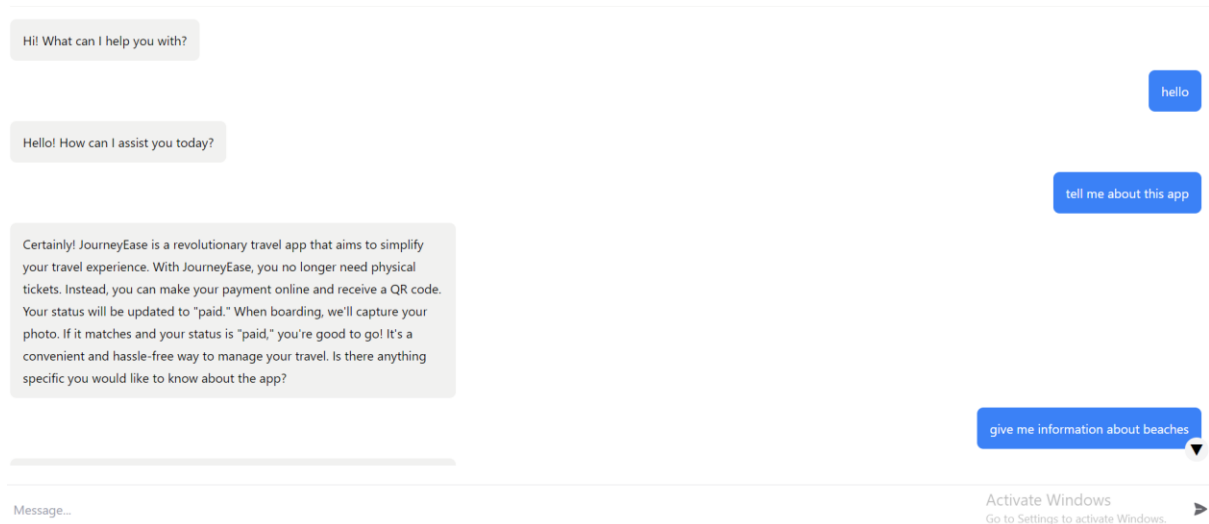


2) Create a account or Login into your account!

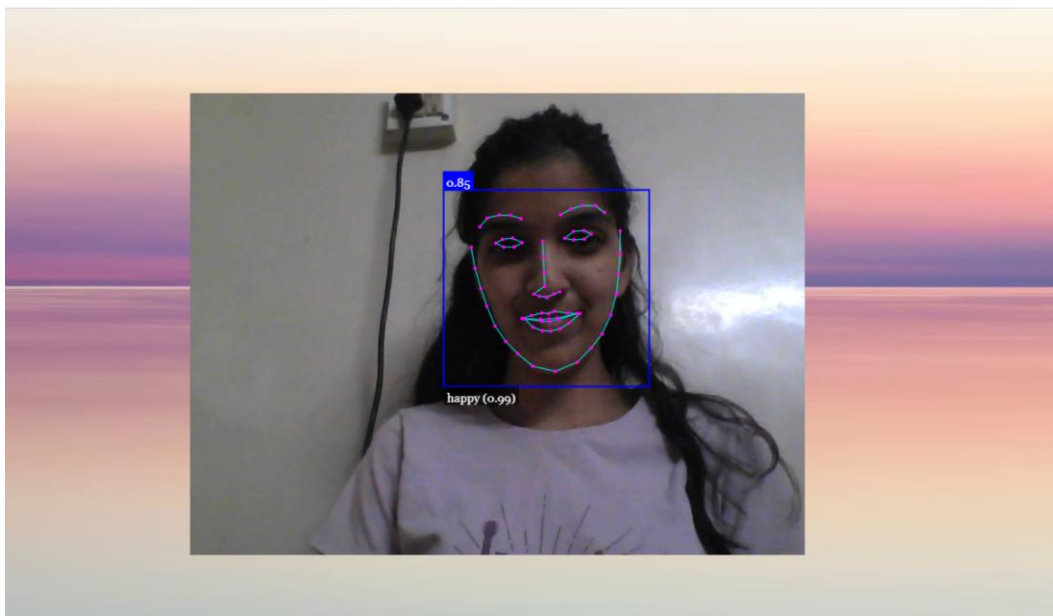


3)Explore our services after succesful login/signup.

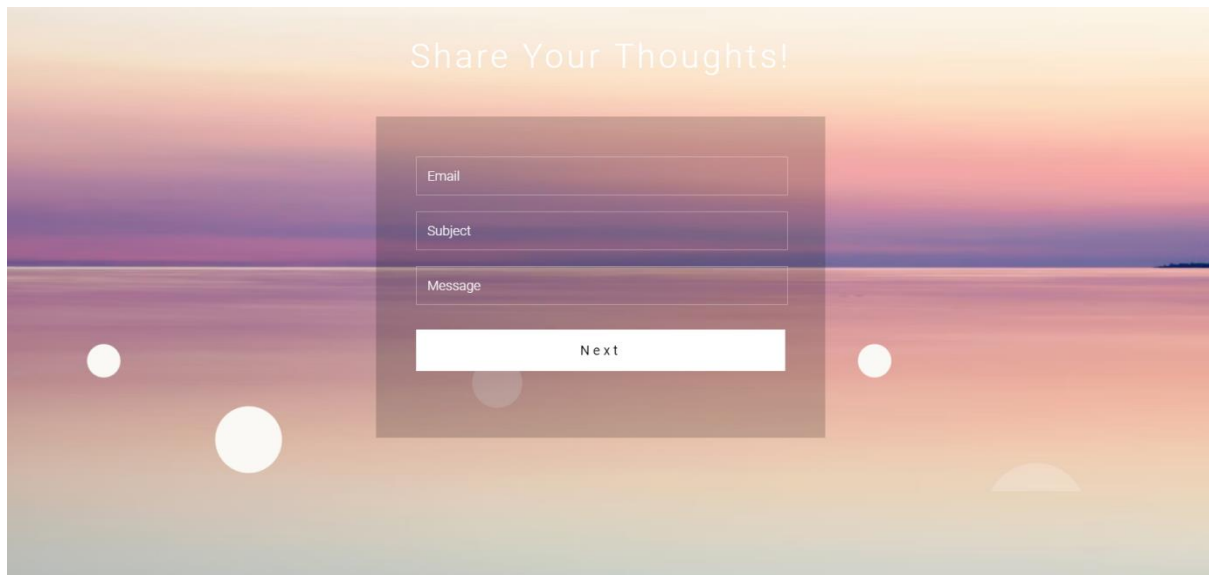
Step1:Engage in real time communication.So we have created a Chatbot which will be available for 24x7 time.User can ask any query related to travel to it.This is how it will look!



Step 2: Users can book a ticket virtually using a QR code. After scanning the QR code, users stand in front of a facial recognition scanner installed at the boarding point. The system captures the user's facial image and compares it to the registered image in the database for authentication. If the user is authenticated and recognized, they can board easily and enjoy their journey! Additionally, our system can detect the user's emotions/feelings during recognition. Upon successful authentication, a pop-up message will appear, indicating "You can board now." This feature distinguishes our system from others. Below is a snapshot illustrating the process.



Step 3: User can submit their feelings or share their thoughts with us. Below is the snapshot for the same.

**Technology Stack:**

Web application development(Html,css,js,bootstrap)

XAMPP server

PhpMyAdmin

MySQL database

Face recognition Libraries(face-api.min.js and other)

Key Features:

- ✓ Advanced Facial Recognition: Our system employs cutting-edge facial recognition technology to authenticate users, ensuring secure and efficient boarding.
- ✓ Emotion Detection: Beyond mere recognition, our system can detect users' emotions during authentication, enhancing the overall passenger experience.
- ✓ Access Control: Only authenticated and recognized users are granted access to board, enhancing security and minimizing unauthorized entry.
- ✓ Seamless Virtual Ticketing: Users can book tickets effortlessly through a mobile app or website, receiving a unique QR code for access.

Conclusion:

Our facial recognition-based boarding system represents a groundbreaking advancement in the realm of public transportation. By seamlessly integrating virtual ticketing with advanced facial recognition access control technology, we have transformed the boarding experience for passengers. From effortless ticket booking to secure and efficient boarding, our system ensures a smooth journey from start to finish.

