FACEGENIX

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By:

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Introduction

Facegenix involves developing an attendance system that tracks employee presence, time-in, and time-out using facial recognition technology. It also aspires to automate the traditional attendance system, which requires the manual marking of attendance. It allows a company to keep track of in-time, out-time, break time, and attendance in a digital format.

Scope

This project lays the foundation for future facial recognition and detection efforts. With a user-friendly UI, this project also covers web development and database management. Any business office, institution, or organization can use this system to replace their old method of tracking staff/student attendance and also provide a digital attendance report of each staff/student.

Technology / Platform / Tools :

Technology

- Django
- OpenCV
- Dlib
- Open-Source Face Recognition Library
- SQLite Database.
- JavaScript
- Bootstrap

Platform

- Windows

Tools

- Visual Studio Code

Features of the Project

We have two types of system

- Employee
- Admin

Functions performed by the admin:

- Login
- Register new employees to the system
- Add employee photos to the training data set
- Train the model

Functions performed by the employee:

- Login
- Mark his/her time-in and time-out by scanning their face
- View attendance report of self

Functions:

Manage Registration and Login:

- Register new employee

  Admin can register the information about the new employee using this feature.

- Log-In to the system

  A Using the correct credentials the user can be redirected to employee/admin portal where they can further continue with their work. If wrong credentials are entered an error message is displayed

Manage Attendance Details:

- ### Mark your Attendance-In

  User will scan his/her face using the external web camera and then system will identify the user uniquely and will mark his/her in-time to the database.

- ### Mark your Attendance-Out

  User will scan his/her face using the external web camera and then system will identify the user uniquely and will mark his/her out-time to the database.

- ### View my attendance report

  Employee may often need to see his / her attendance record throughout the month or year. Using this feature one can see his / her attendance record till the date.
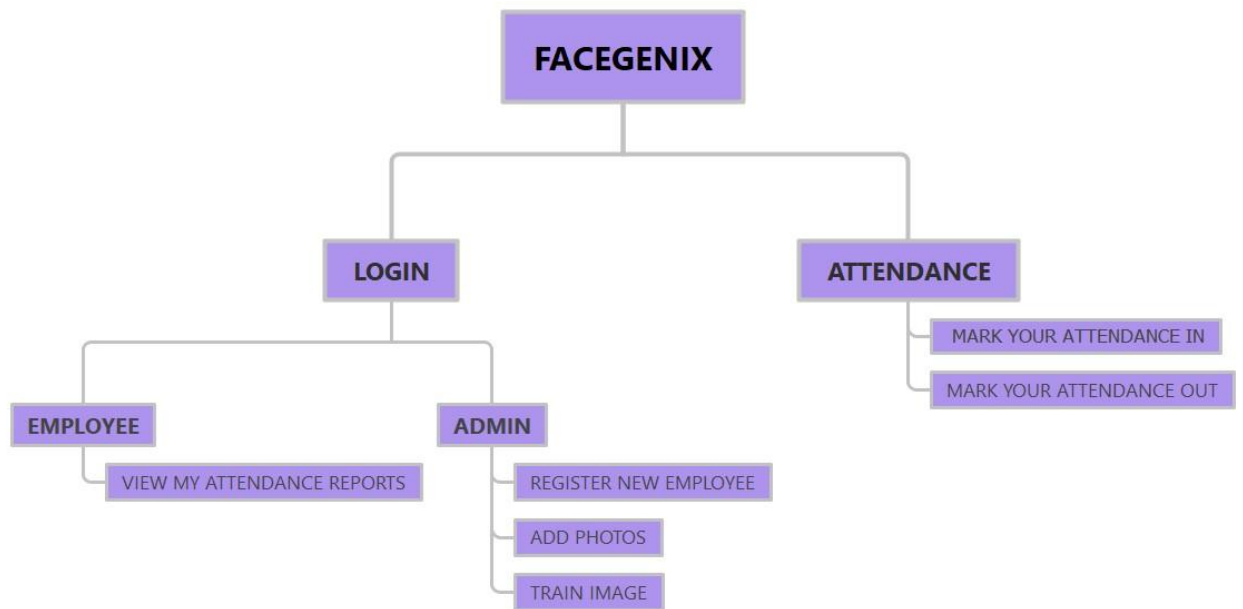
Manage Employee Details:

- ### Add photo of the employee

  Admin can add photo of the employee during the registration process using this feature. only admins can access this feature.
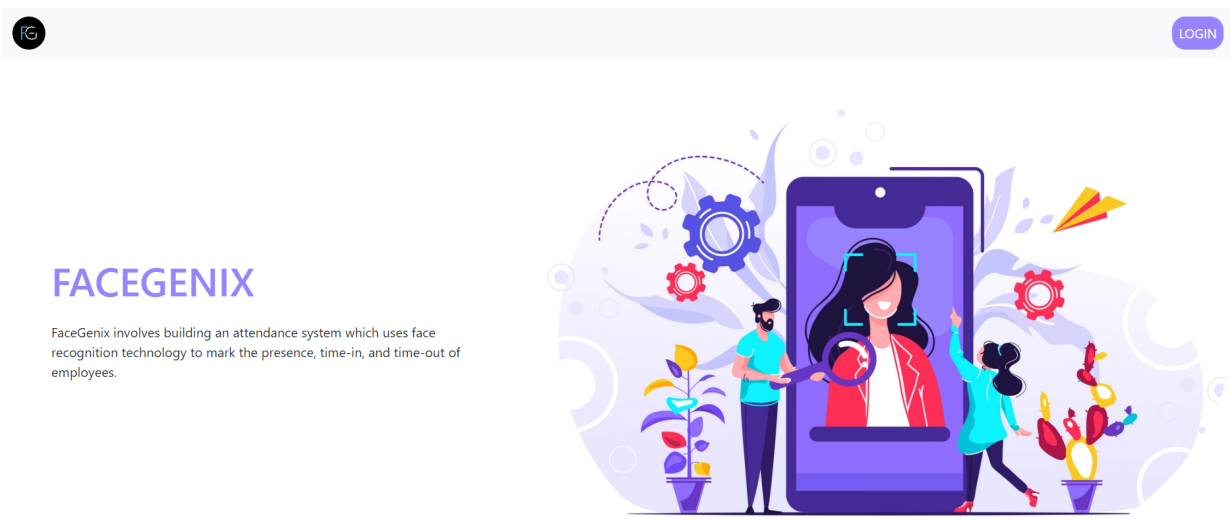
- ### Train the system

  The system captures 300 images of a single person, so this is a large database so system will process all the available records of the employees and will generate necessary system data to identify each employee uniquely.

Flow chart:

Screenshots:
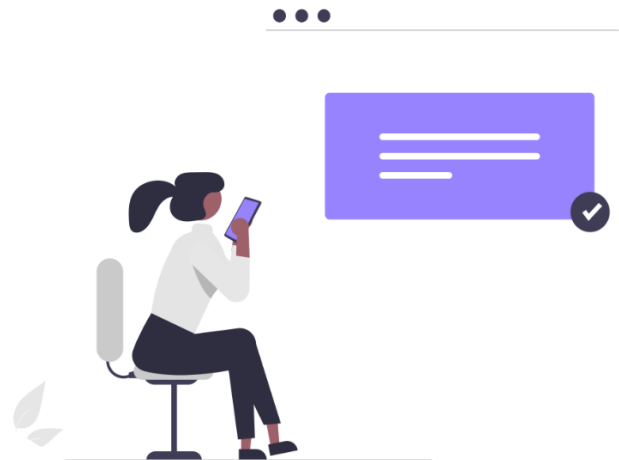
Landing page:

MARK-YOUR ATTENDANCE IN

User will scan his/her face using the external web camera. and then system will identify the user uniquely and will mark his/her in-time to the database.
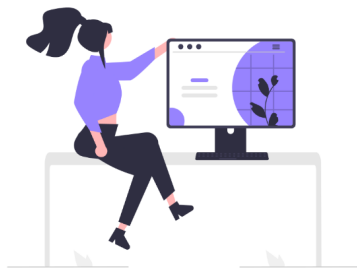
Mark Your Attendance In

MARK YOUR ATTENDANCE OUT

User will scan his/her face using the external web camera. and then system will identify the user uniquely and will mark his/her out-time to the database

Mark Your Attendance OUT

Login Page:

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Login

Username*

Password*

Login!

ADMIN DASHBOARD:

LOGOUT

WELCOME ADMIN!

This is the Admin portal.Only the Admin can access this page.Here the Admin can perform various functions like Register New Employees, Add photos.

REGISTER NEW USER

Admin can register the details about the new employee using this feature .

Register New Employee

REGISTER PAGE:

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Register New Employee

Username*

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Password*

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation*

Enter the same password as before, for verification.

Register

ADD PHOTOS

Admin also need to add a photo of the employee during the registration process.This feature is accessible only by the admin
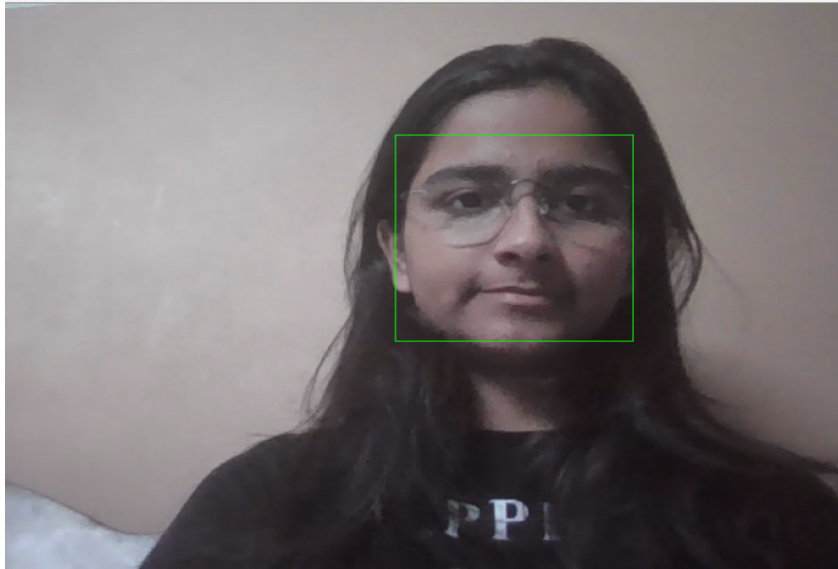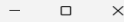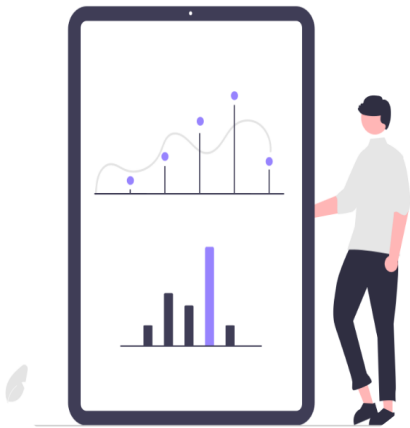
Add Photo
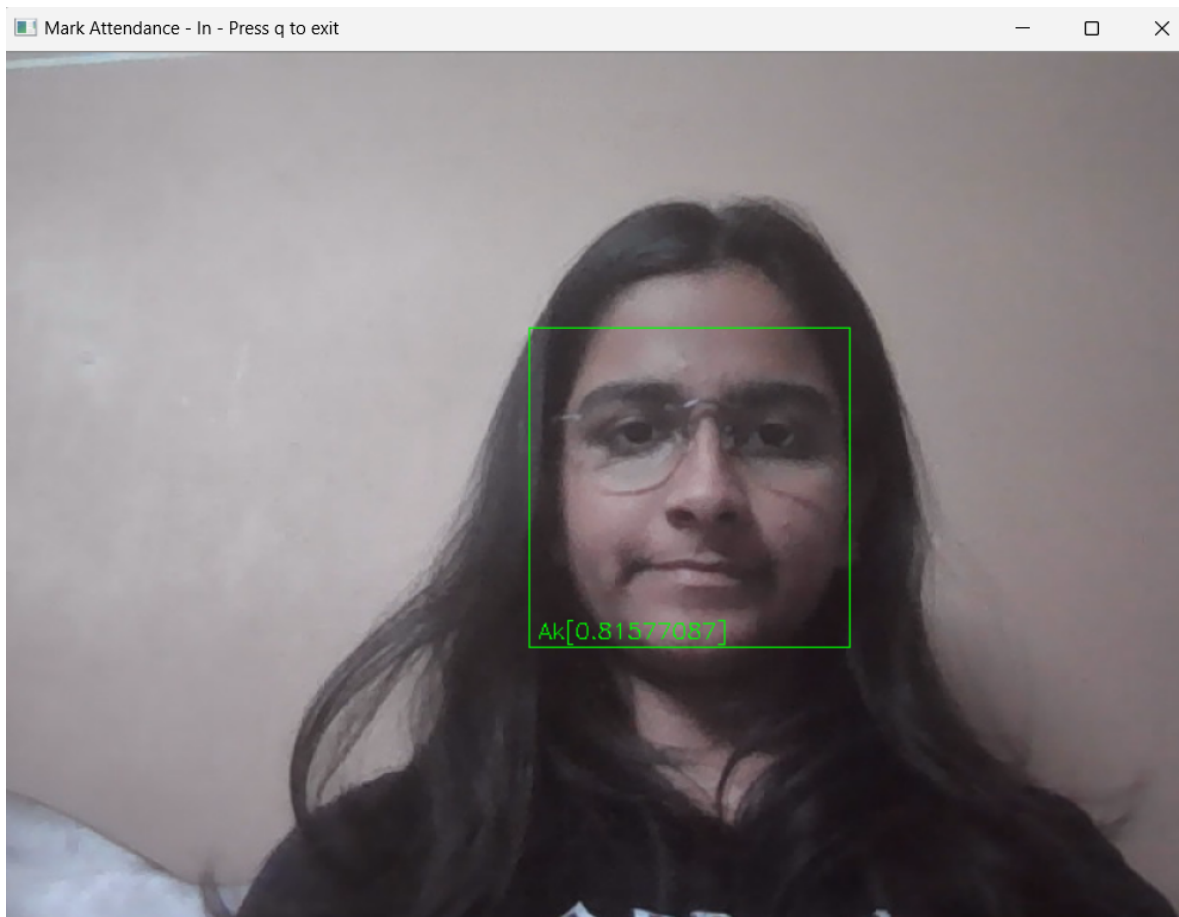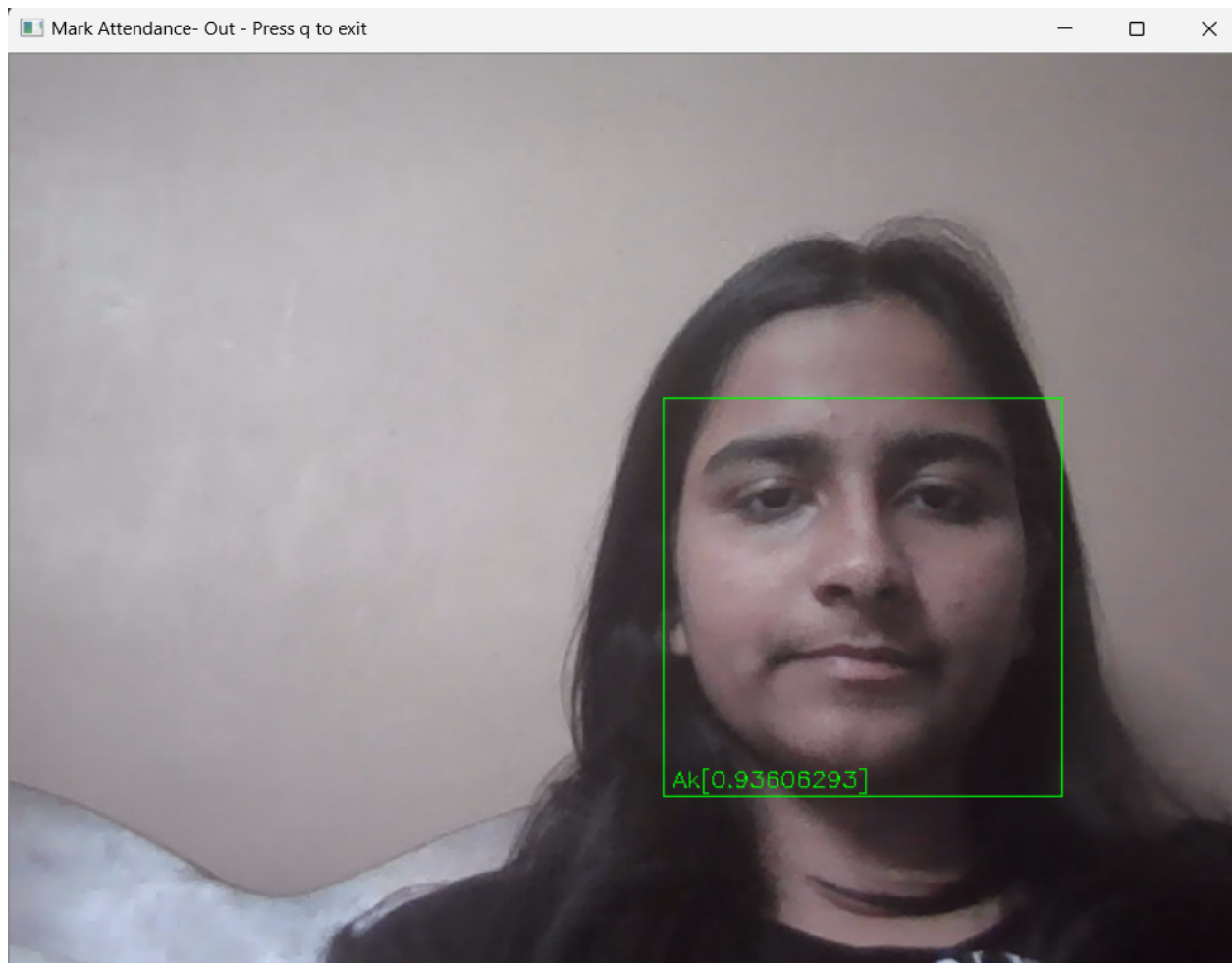
Enter Username

Username*

Submit

TRAIN IMAGE

System will process all the available records(images) of the employees and will generate necessary system data to identify each employee uniquely.
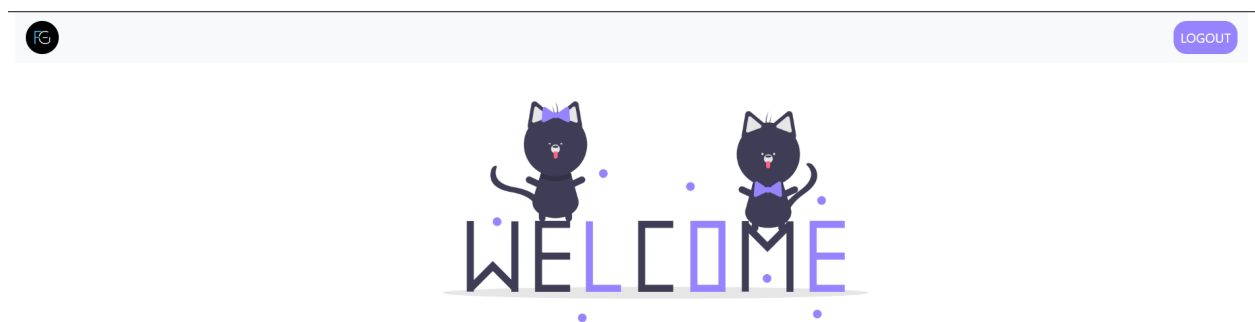
Train Image

Mark your Attendance In:

Mark Attendance - In - Press q to exit

Ak[0.81577087]

Mark your Attendance Out:

EMPLOYEE DASHBOARD:

Welcome, Ak!

This is the Employee portal. Here the employee can check his/her attendance report.

View My Attendance Report

ATTENDANCE REPORT

FG   DASHBOARD

Select Duration

Date from*

| January |
| 1 |
| 2022 |

Date to*

| January |
| 1 |
| 2022 |

Submit

Select Duration

Date from*

May

28

2022

Date to*

May

28

2022

Submit

Date	Employee	Present	Time in	Time out	Hours	Break Hours
May 28, 2022	Ak	P	May 28, 2022, 11:22 p.m.	May 28, 2022, 11:28 p.m.	0 hrs 7 mins	0 hrs 0 mins

The current model is 99.38% accurate.