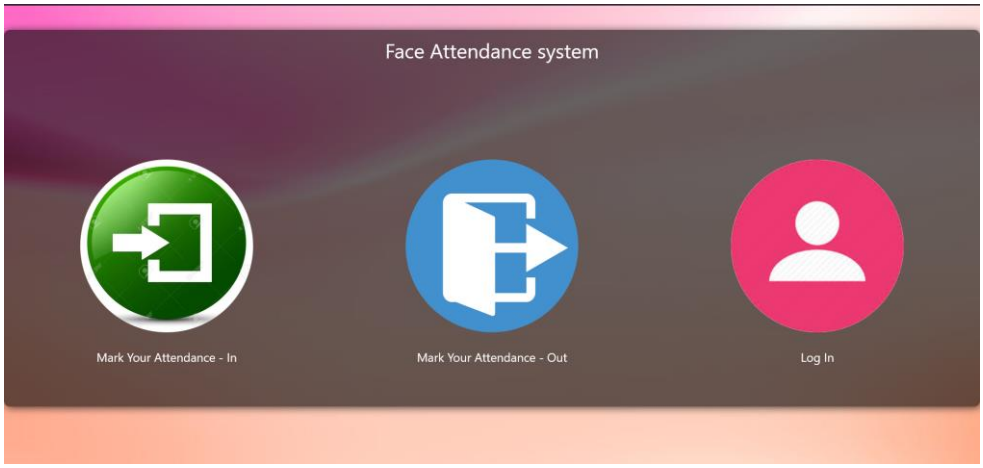
Face attendance System

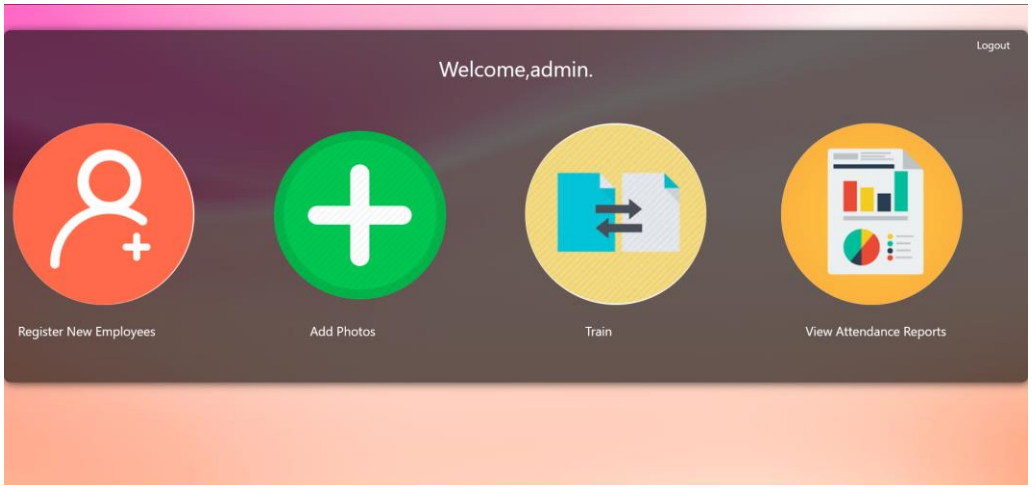
Reference Document

Description:

On the home page, there are 3 features available. Mark attendance in, Mark attendance out, and login option. Initially, the admin has to register the employees by logging into the login using admin credentials.

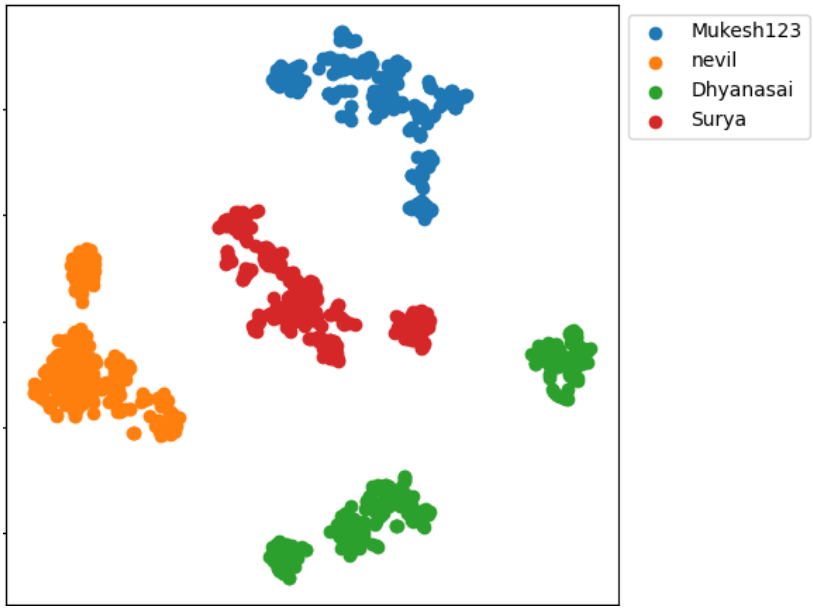


Admin has to create a profile that contains the username, the password for the employee, and images of the employee. After creating the profiles of all the employees the admin has to train the model which runs in the backend using the train option available on the website.

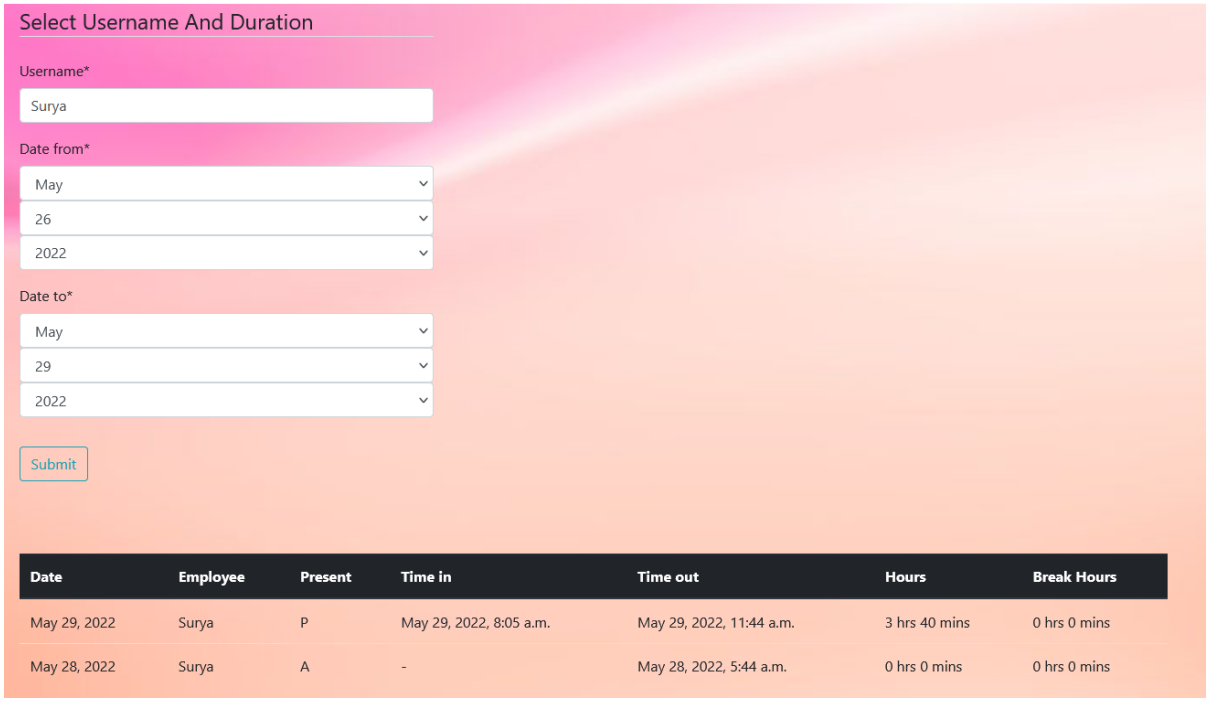


For example, I have trained the model with 4 users and around 300 pictures of each user. The model which is running behind is the SVM classifier and for detecting the face I have used

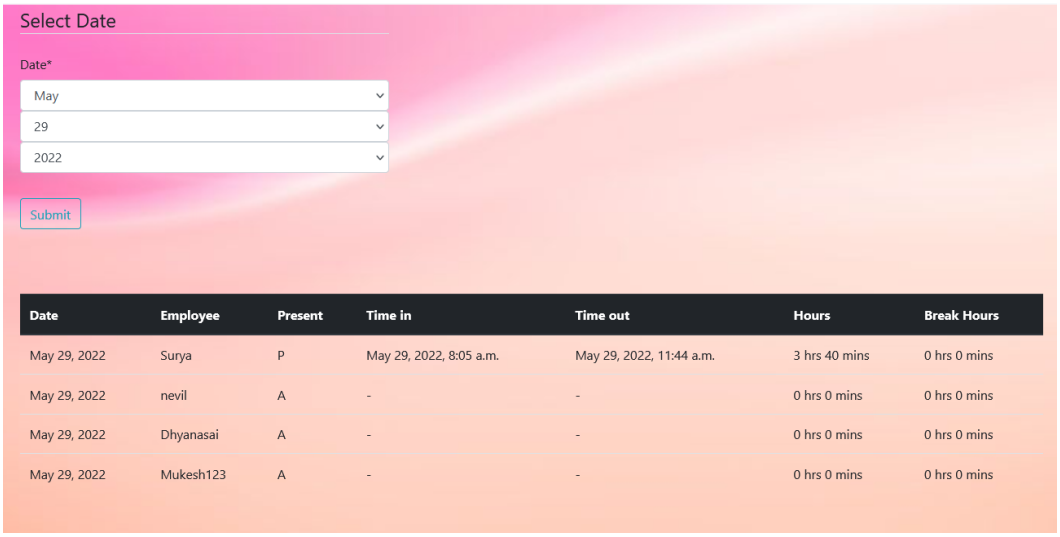
the shape_predictor_68_face_landmarks.dat file, a dlib's pre-trained model which identifies a face-based on 68 points on the face. The below figure shows the clustering of different users.



The admin can also see the attendance of the employees on the view attendance page. Once the user profile is created and trained, employees can mark their in and out attendance by clicking on the respective options available on the home page. The below figures show the attendance summary based on employee and also based on date.



Date	Employee	Present	Time in	Time out	Hours	Break Hours
May 29, 2022	Surya	P	May 29, 2022, 8:05 a.m.	May 29, 2022, 11:44 a.m.	3 hrs 40 mins	0 hrs 0 mins
May 28, 2022	Surya	A	-	May 28, 2022, 5:44 a.m.	0 hrs 0 mins	0 hrs 0 mins



Steps to run the project:

1. Clone my GitHub repository: https://github.com/IVSrisurya/Microsoft-engage.git

2. In the project folder activate the virtual environment named ‘env’ with a command prompt using: **env\Scripts\activate**

3. Run **python manage.py runserver** in the command prompt.

If you don’t want to use a virtual environment, use the requirement.txt file available in the repository for downloading the necessary packages and library. The most probability of getting the error is the no module error. Try to use pip to install the module.

The minimum screen size required for the effective functioning of a web app is 1200 x 850 as this website is designed for a desktop or laptop or any device having medium device width and height.