# BANK OF BARODA HACKATHON - 2022

## TEAM NAME : ICONS

# PROBLEM STATEMENT

Why did you decide to solve this Problem statement?

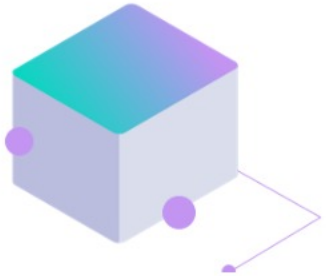
- As this problem is prevailing in our society and we are facing it in day to day life.
- As we are facing this problem, we have to take the initiative to find the solution.
- This helps government and society in protecting the money resources.

# EMOTION DETECTION

In face detection, the system identifies human faces in digital images, irrespective of the source of the image. In face recognition, the system recognizes a known face in a digital image with a known name. Source could be any of these: a scanned photograph, a live video stream or a CCTV footage. In our case, the source is a cctv footage. This is a cloud-based API that detects emotions such as happiness, sadness, neutrality, contempt, anger, disgust, fear, and surprise.

Detect human faces and search for similarities

Consolidate images into groups based on their visual similarities



Identify any previously tagged people in images

# EYETRACKING USING PYGAZE

## About python pygaze

The PyGaze toolbox is an open-source software package for Python, a high-level programming language. It is designed for creating eye tracking experiments in Python syntax with the least possible effort, and it offers programming ease and script readability without constraining functionality and flexibility. PyGaze can be used for visual and auditory stimulus presentation; for response collection via keyboard, mouse, joystick, and other external hardware; and for the online detection of eye movements using a custom algorithm.

## About project scope

In our project, we have utilized this software to observe and keep a close watch on each and every customer's (of the bank) eyeball movement in order to monitor wherever their vision wanders. If a person has been closely watching the movement of other customers, cashier  or a bank manager, that person needs to be monitored closely so as to check whether their eyesight have been wandering around the hotspots where there might be cash stored or places under high surveillance. The suspicious person might be an account holder or maybe. It can also be one of the workers in the bank.

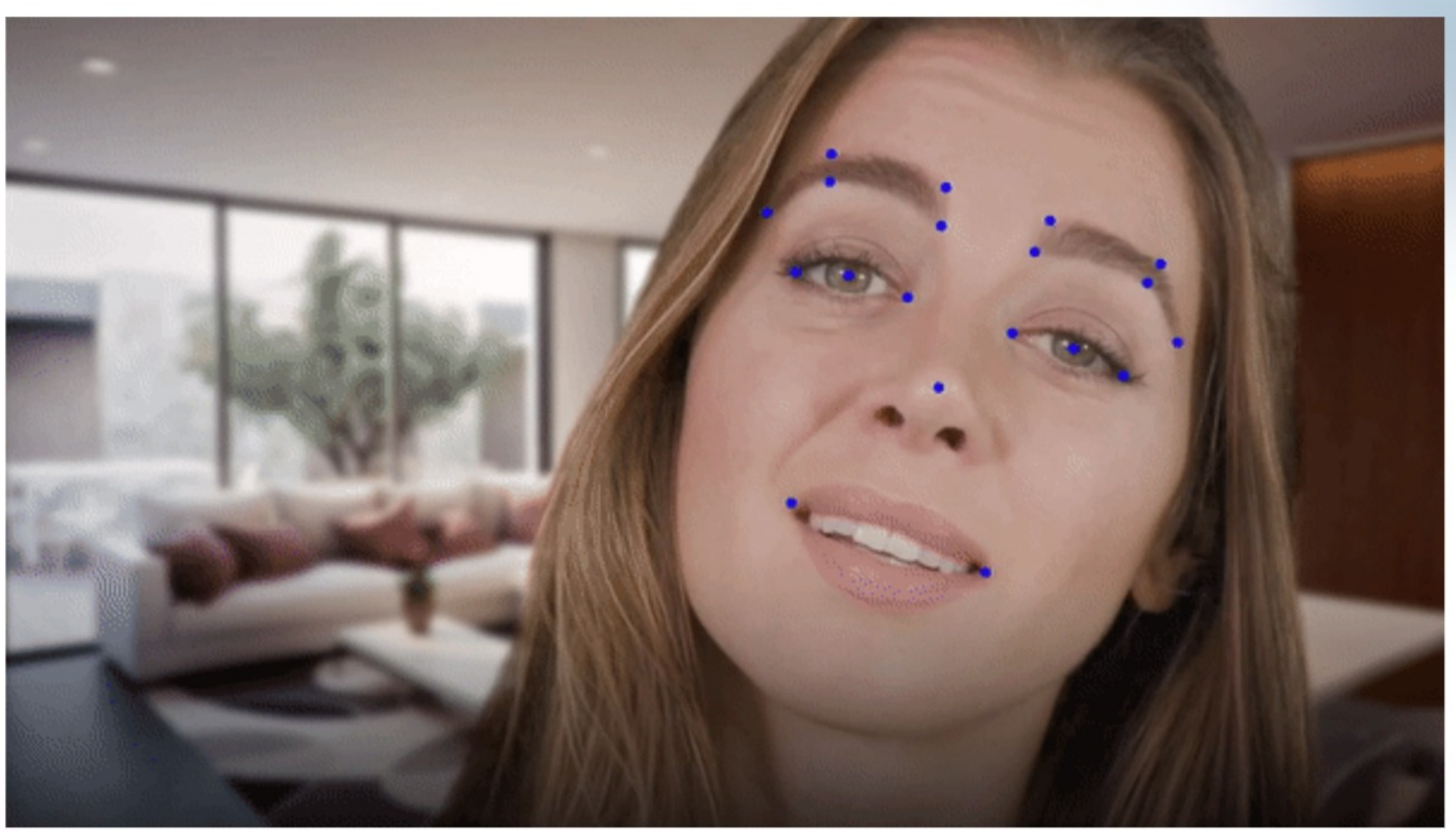
# FINGERPRINT

Fingerprint of a person can be detected using image processing. The system consists of three main parts, image acquisition, processing and identification and recognition.

Fingerprint images are acquired and stored in the database in the image acquisition stage. After the image has been processed, it is fed into the back propagation neural network as input in order to train the network. After training, the neural network is ready to perform the identification and recognition operations (matching process).

This step is performed after performing the previous two steps, only when a person is found to be suspicious due to their actions or who can be convicted.

# FACE EMOTION - TEST CASE



# EYE TRACKING - TEST CASE

# MEET THE TEAM

| A.Mangayarkarasi Ahnandha Shree Money | S.Kumudha Varshini | SA.Lakshmi Krithika | P.Pushpitha Shree |
|---|---|---|---|
| Team Lead | Team Member | Team Member | Team Member |

# THANKyou