



Conversational AI & Cognitive Intelligence for hyperpersonalised and secured Banking

01 Problem
Identification

02 Possible
Solutions

03 Technical
Implementation

04 Future
Scope

Problem Identification 01

Identifying Potential Challenges in present Banking

Challenges in present Banking

01

Support w.r.t Financially illiterate & semi literates dependency leading to fraudulent transactions

02

Card and pin related issues like losing them and that can be cracked easily (600 + crore loss)

03

Annoying always if pin or card is forgotten and to reset them is a lengthy procedure

04

Network issues with the mobile banking and UPI services for digital transactions

Possible Solutions

02

Leveraging AI for Hyperpersonalised Banking

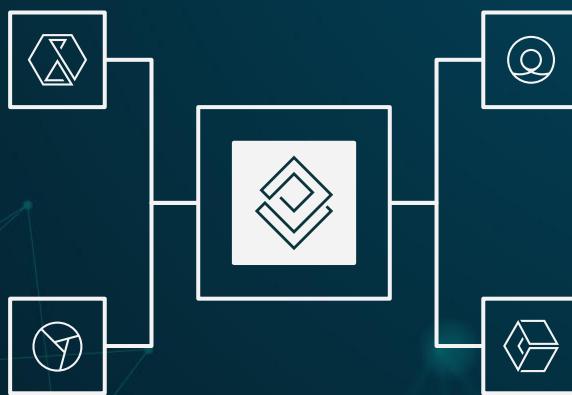
Our proposed solutions

Interactive VDA that guides customers during transactions

Conversational AI

NLP & Open CV

Language Interpreter and liveliness detection of users



Facial & Speaker Recognition replacing pins and cards

Cognitive Intelligence

API Integration

WhatsApp integration for messaging and OTP services

Technical Implementation

03

Workflow and Working prototype demonstration

Tech Stack



**space for hardware config



Biometric Vision API for
face recognition, Open CV,
PIL – Python Image library

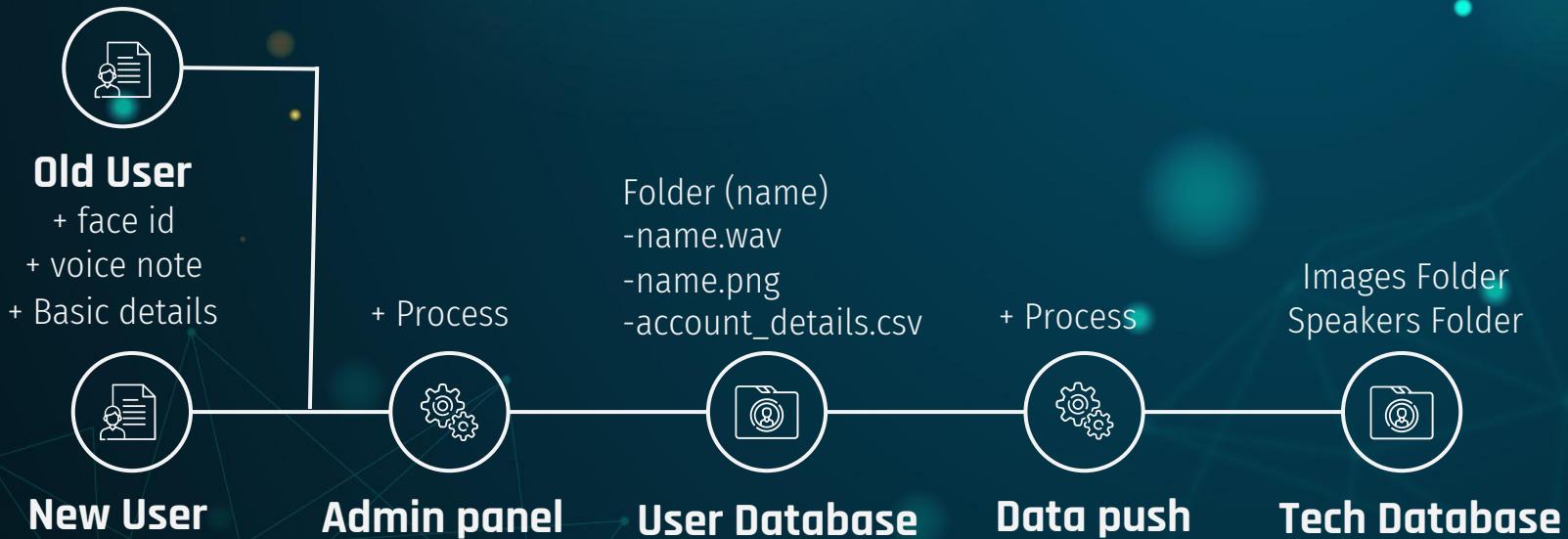


Python 3.8, PyCharm IDE,
Streamlit, SciPy, pickle,
NumPy and Pandas



Pyaudio, wave, sound
device, sound file, gTTS,
python_speech_features

Work Flow - Super Admin Panel



Workflow - Super Admin Panel



Bank Assist System : Super Admin Panel

Create New Account

Name of the Account Holder

Account Number

Amount deposit

[Create Account](#)

[Face Authentication](#)

[Record Voice note](#)

Workflow - Super Admin Panel



Bank Assist System : Super Admin Panel

Data Push to Tech team

This needs to be performed at the end of the day and it is to send authentications received to IT team that is responsible for training the voices and storing for authentication in central data base

Press the button Data Push to Tech Team

[Data Push to Tech Team](#)

Work Flow - Tech Admin Panel



Workflow - Tech Admin Panel



Bank Assist System : Tech Admin Panel

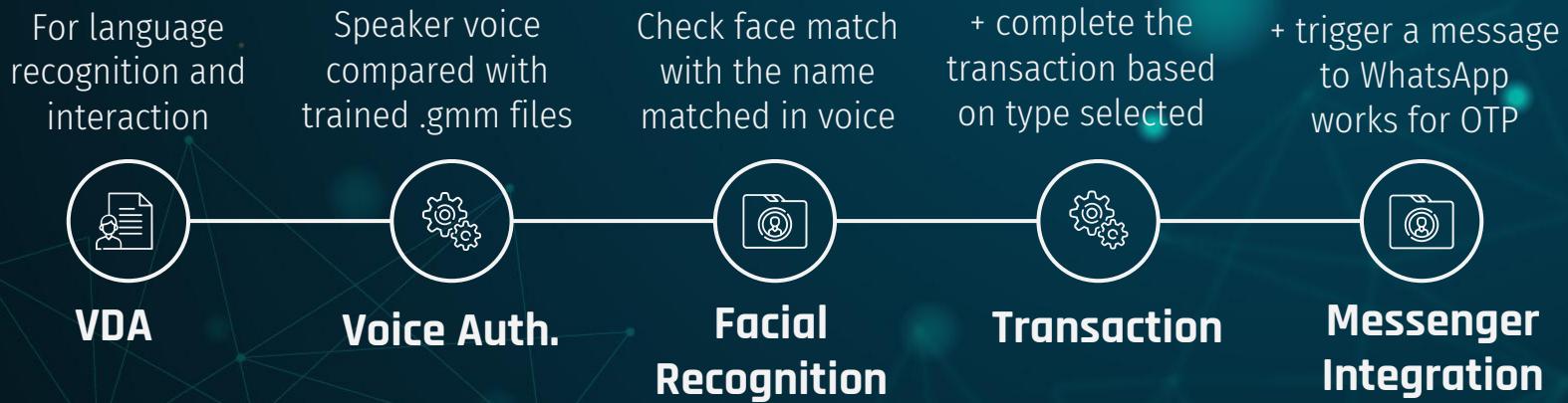
Train the Speaker data for voice authentication

This needs to be performed at the end of the day after push is being received from super admin

Press the button to Train speakers voices that needs to be kept as base for authentication

[Train the user voices](#)

Work Flow - Customer facing window



Customer Facing Window

Next Gen Cognitive Banking Services - v1

Make your Transactions hassle free

Start Process

Start with a voice note for authentication

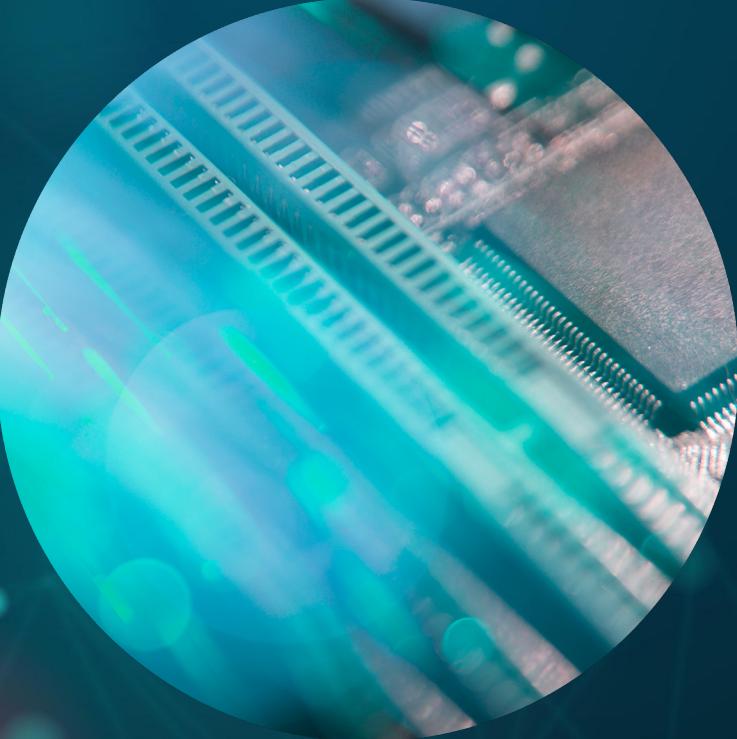
Voice identified as Speaker identified as puja



Pic captured ... Wait for confirmation

The image matched with puja





Thank you
for your
Attention

