बैंक ऑफ़ बड़ौदा
Bank of Baroda

Bank of Baroda Hackathon -2022

Team Name : Brain-ACHE

Team Bio: we are a team of creative and innovative students who would like to solve real-world problems with the tools and knowledge we have at our disposal.

ADMIN · LEARN · STRATEGY · SALES · IDEA · PLATFORM · ACHIEVEMENT

Date: 20/09/2022 //01

TECHGIG

Problem Statement

Customers visit different digital channels, during this journey, they may require help to fulfil the process requirement, many times customers do not complete the process / transaction as they do not have full information. Virtual Assistant may help to increase the adoption of digital channels and reduce the cost of operation

We decided to solve this problem statement as some of our teammates have experience with automata and machine learning and have also got recognition in the SIH competition 2022 using automata.

We want to broaden our scope of Deep Learning or Machine learning by creating an intelligence that could make an environment of ease for everyone who uses digital platforms for transaction
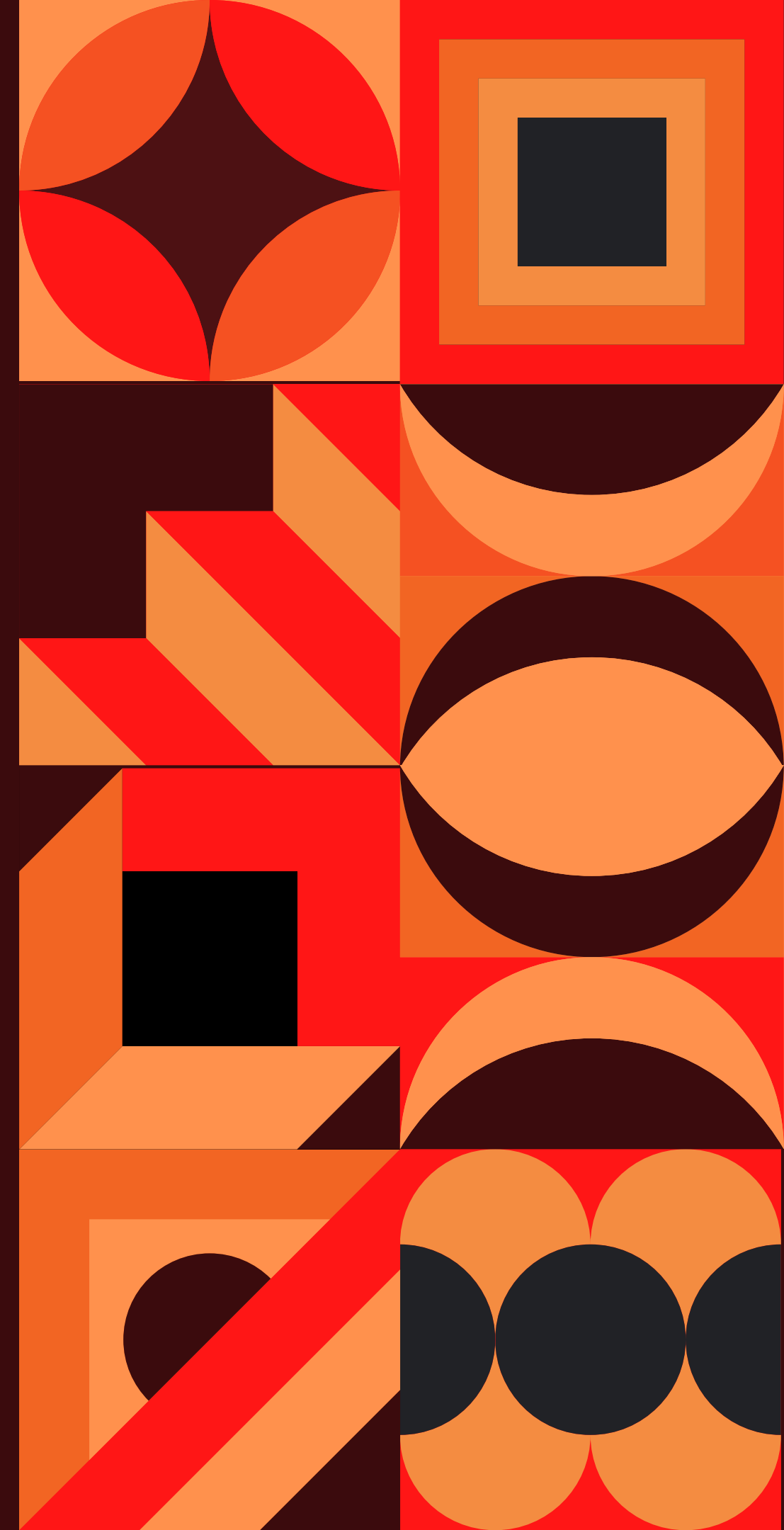
User Segment & Pain Points

Our Virtual Assistant would be a great help to customers who would like to do a bank transaction or need help with related tasks.

As an assistant who can translate multiple languages and can reply via voice wherever assistance is needed, it helps a majority to create, manipulate and do a transaction using their account

Users could have problems with the digital system if they are not adapted to it. Small errors could even cause big problems in cases like a bank transaction.
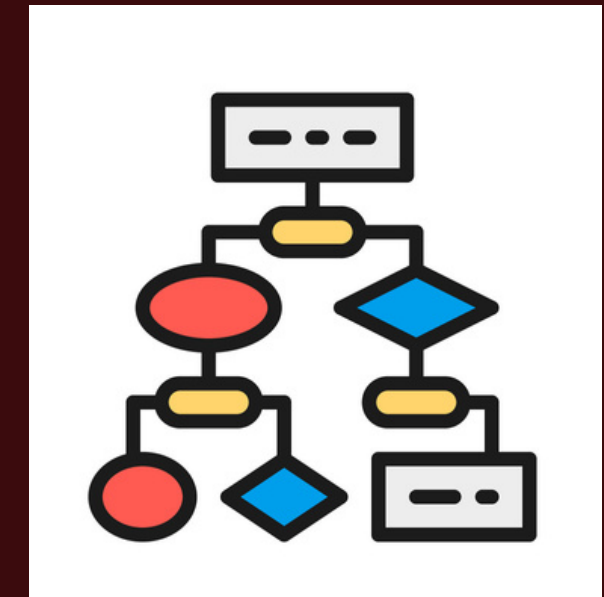
PRE REQUISITE

FLASK

Flask is been used for implementing backend of the project. All speech to text and vice versa works via flask.

API

RestAPI's has been used to implement the basic functionalities of the project(Rest API).

ML/DL ALGORITHM

Algorithms such as the Gaussian mixture model, support vector machine, and neural networks have been implemented in this project

Azure Tools or Resources

Azure Tools helps us to make our projects in a more effective manner

*Cloud Explorer for Visual Studio* is helpful as our main tool for creating this project heavily involves Visual Studio. ✔

SQL Database Migration Wizard is also another notable entrant as a Microsoft application development tools ✔

Docker It has been used for creation, management, and deployment of application containers. ✔

GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere and anytime. ✔
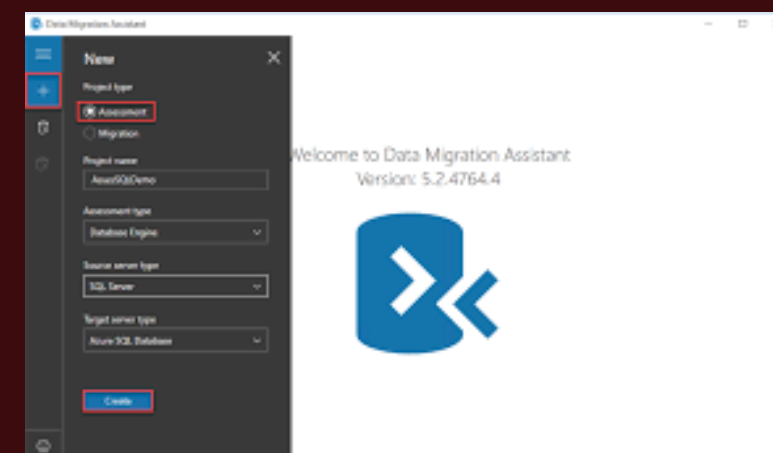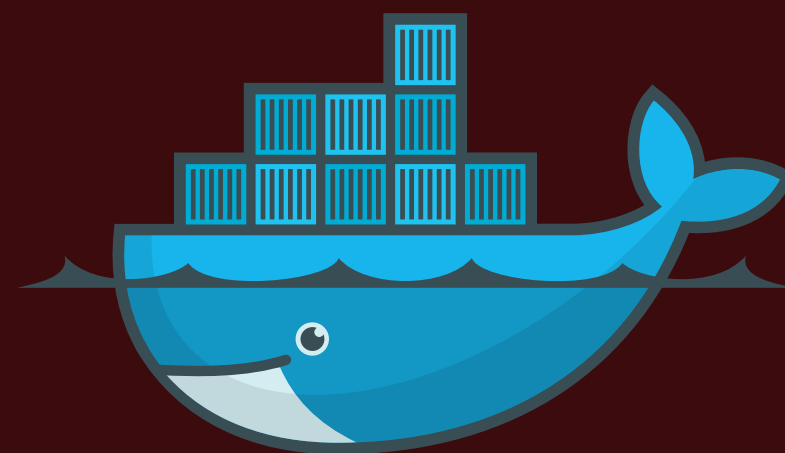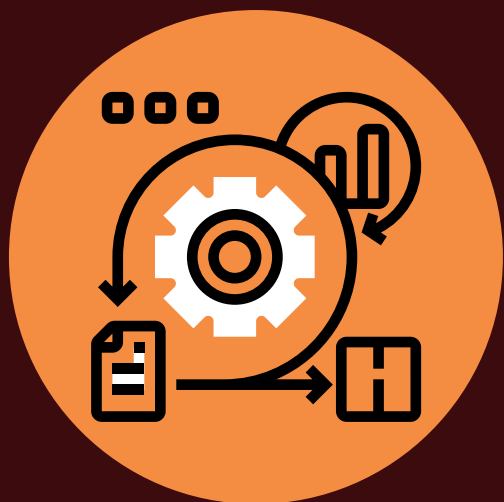
ARCHITECTURE

User End- It is basically responsible for getting input from the user and after preprocessing input it sends input to flask server. And once the server sends its response back, it produces output on the user screen/system.

Server Side- The server is responsible to handle various kinds of DL-ML tasks.

METHODOLOGY

User requests their needs in a voice or directly through text where the speech recognition software identifies the customer's need accordingly and guides them to their destination in the webpage or the application.

Using the APIs it can understand various Indian languages.Initially a pop up screen is displayed to the user if the user wants to use the feature

ARCHITECTURE DIAGRAM

USER

UI/UX

React

API

Flask

DATABASE

SQL
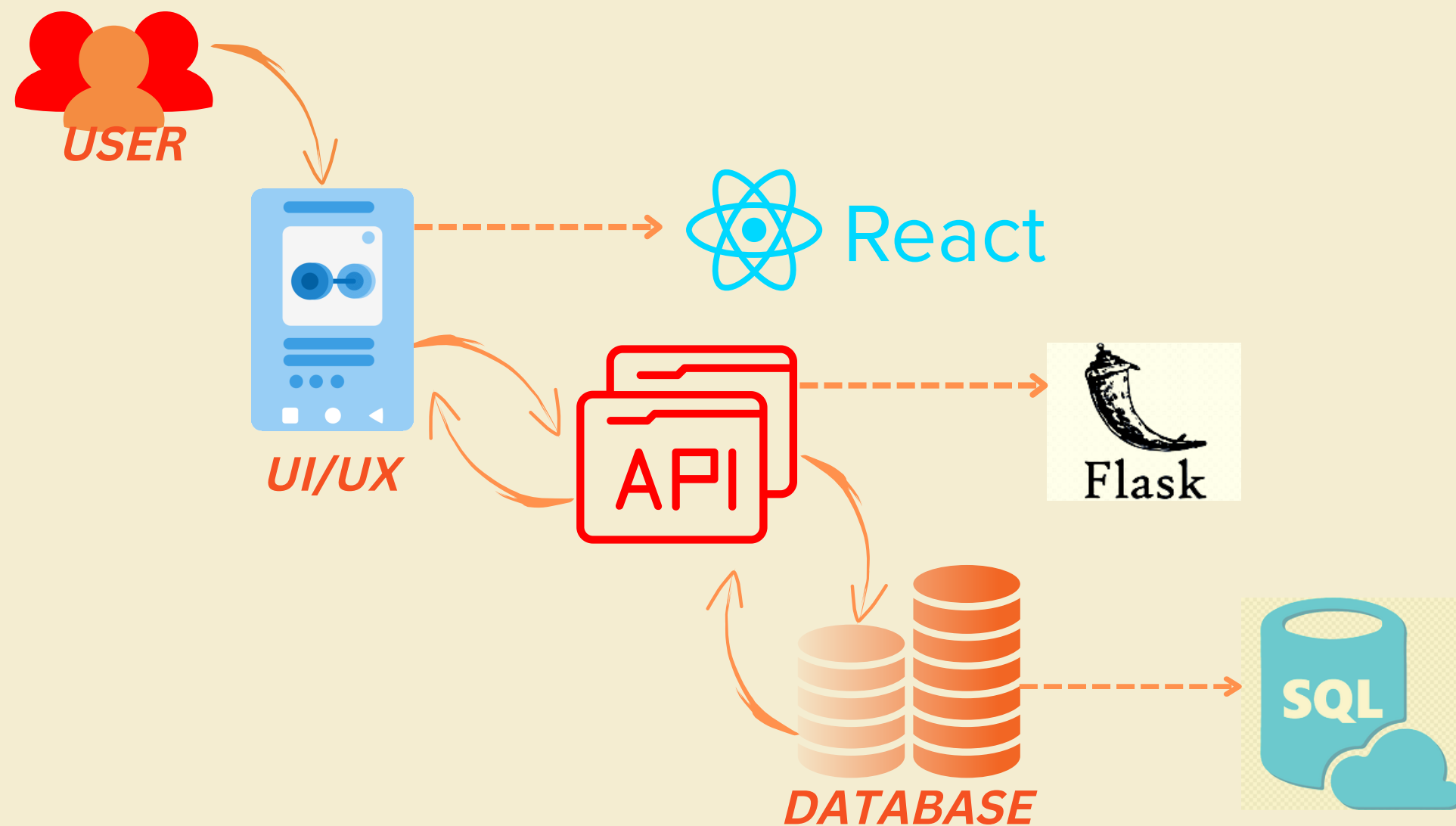
WEB AUTOMATION

Automating using selinium

Fill form using speech to text

Automatically traverse through pages according to user's request

SCALABILITY

1. We can add custom voices and available accents for the virtual assistant.
2. We can add feature to the virtual assistant where it can record the voices of the customers and enhances it's functionalities depending on the needs or queries of the customers.
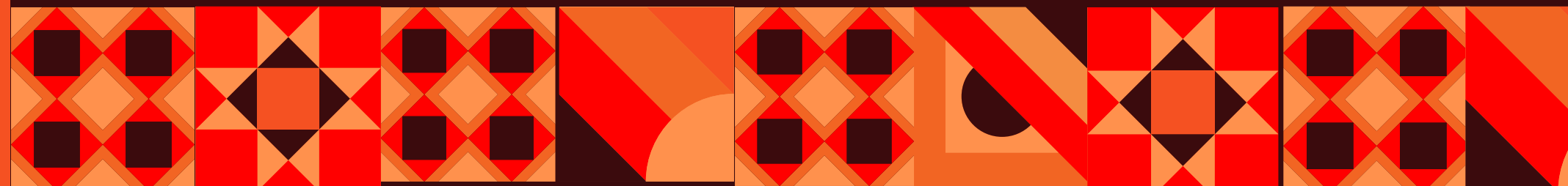
KEY DIFFERENTITATORS

We can request our virtual assistant with queries/ questions related to bank procedures such as requirements for applying for personal loans, we can just ask our virtual assistant" what are the details for a personal loan ?" and then the virtual assistant will provide us with all the steps required as per the bank statements and a link where the requested personal could go and apply for a loan with steps that have been given by the virtual assistant.

ADOPTION PLAN

Our virtual assistant can act as an overlay/floating window where the customer can interact with it by clicking on the overlay icon which opens the virtual assistant.
This overlay/floating window can be integrated to web applications and mobile applications.
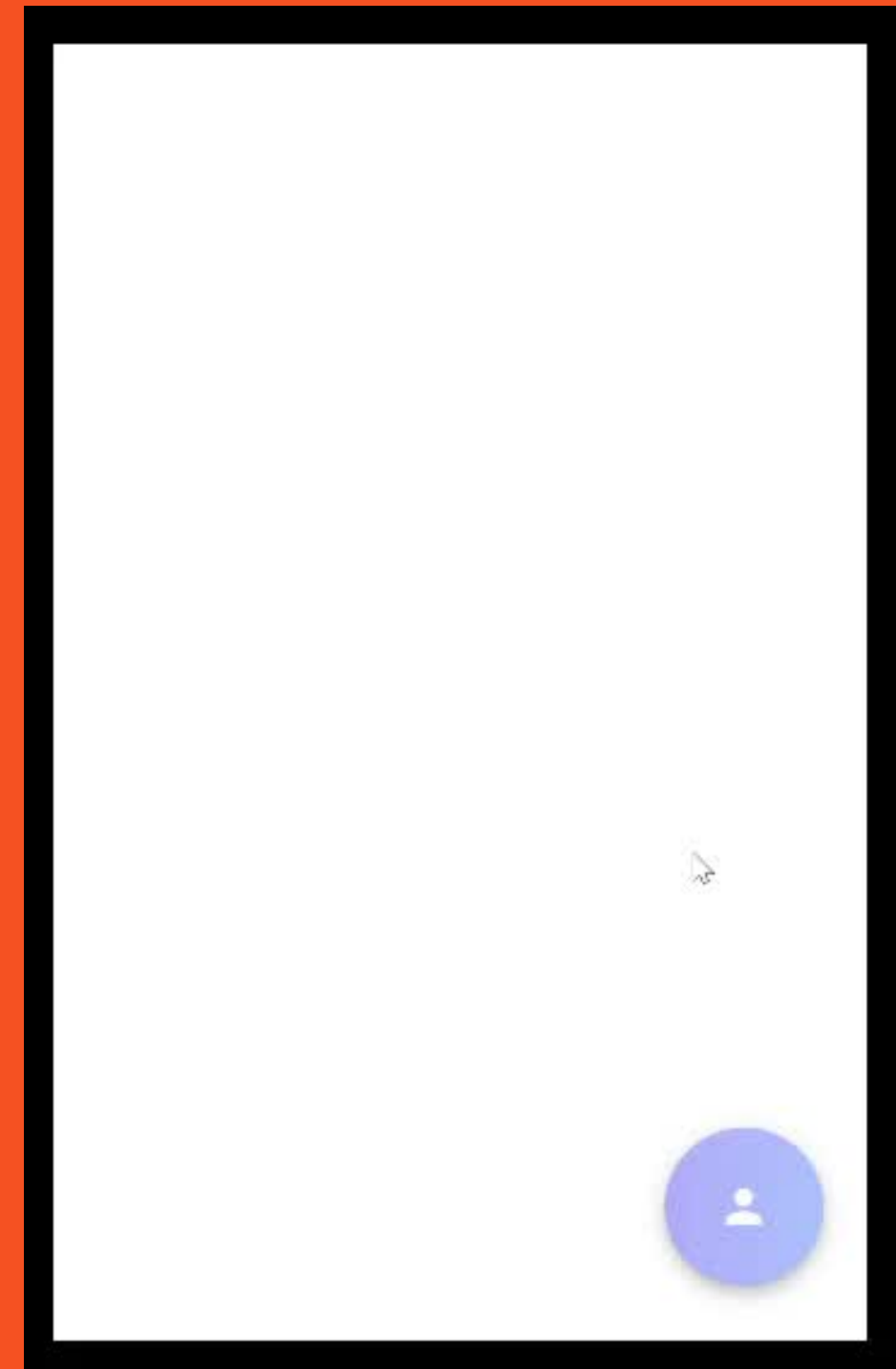
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what are the details required for personal loans?

Requirements for digital personal loan:

1. valid mobile number.
2. aadhar number connected with mobile number.
3. valid pan number.
4. net banking credentials or digital bank statement for last 6 months.
5. web - camera for clicking picture and performing video kyc
6. itr e-filing credentials or digital itr returns for last 2 years (for self - employed)
7. gst portal credentials or digital gst returns for last 1 year (for self - employed)

👉click here for applying for personal loan

Feel free to talk for further clarification😊

type something...

GITHUB REPOSITORY LINK

https://github.com/Brain-Ache/BOB

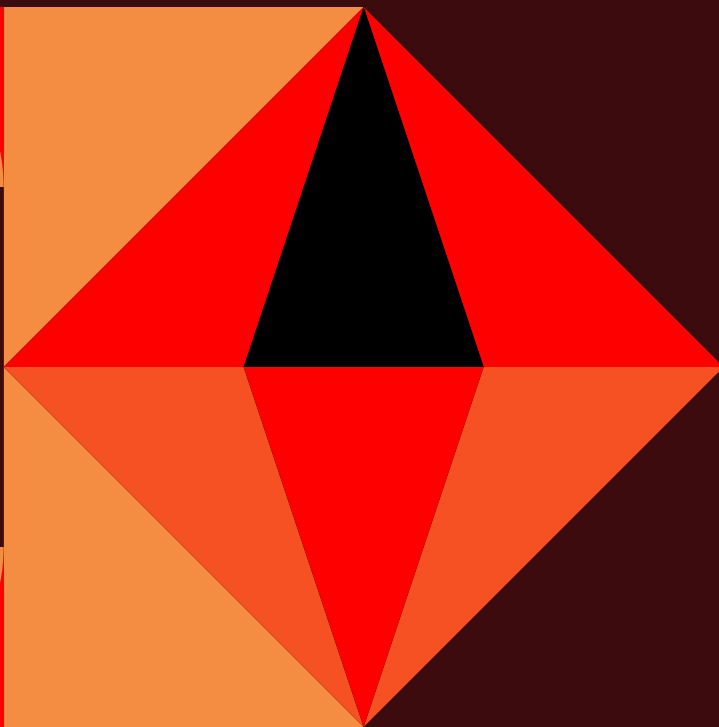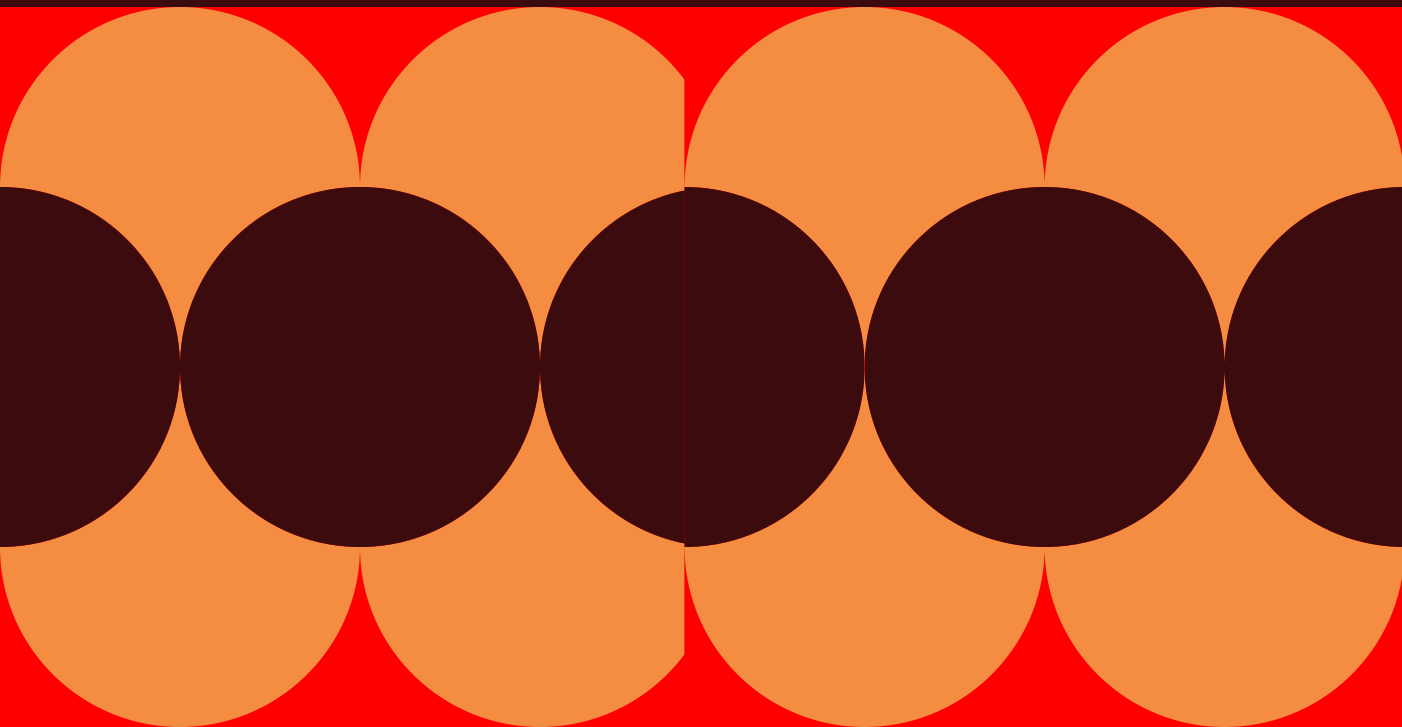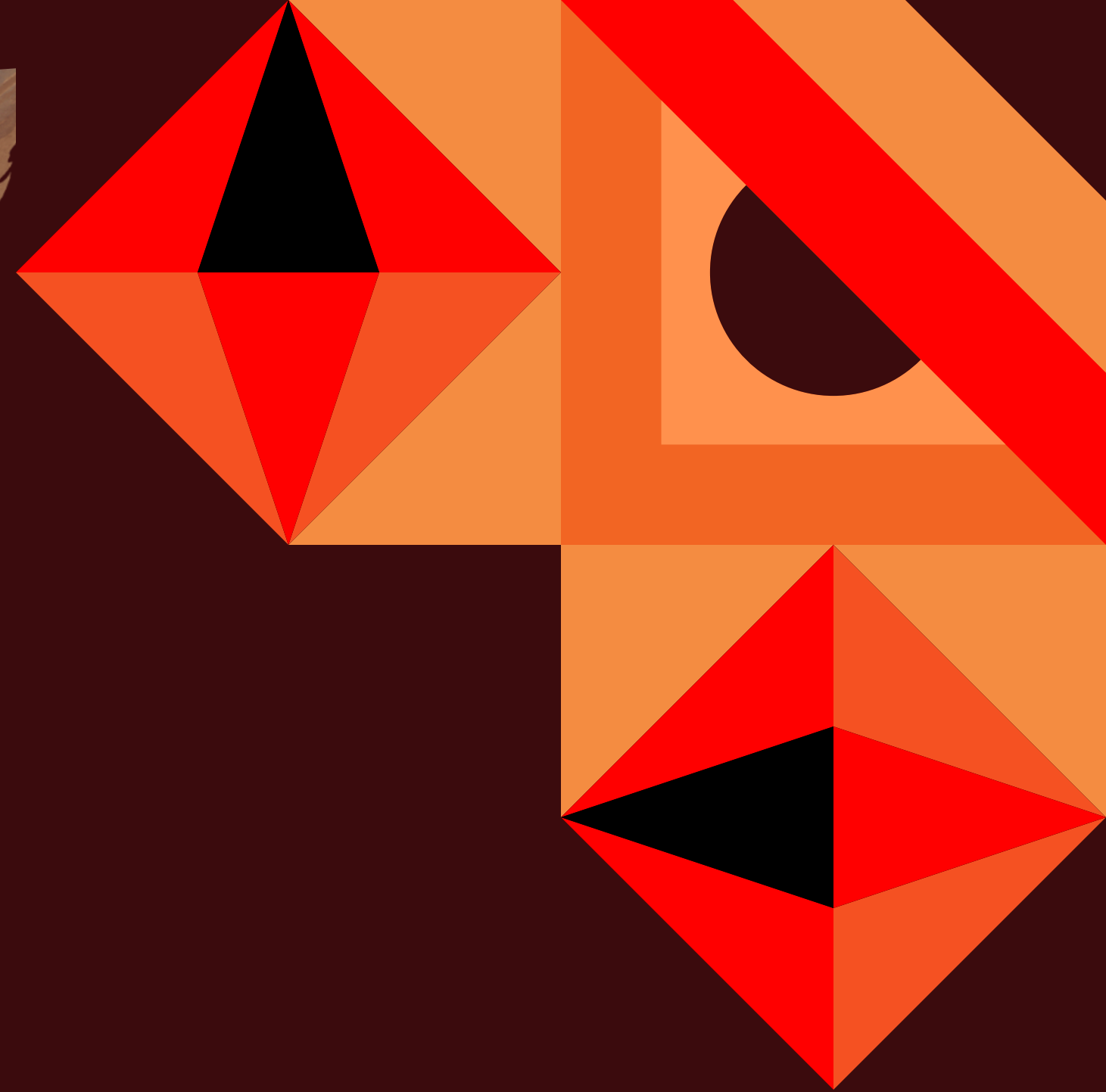# Sample video

TECHGIG

Thank you

Team Members

Harish S – BackEnd
Abhijit S – FrontEnd and editing
Chris Varghese Thomas – Presentation and editing
Emmanuel David A – FrontEnd and React