

Bank of Baroda Hackathon - 2022

Your Team Name : MTS

Your team bio :

A group of third-year computer science and Engineering Students from Walchand College Of Engineering, Sangli. We are keen to learn the concepts of deep Learning, Artificial Intelligence, and Web Development. We are Looking forward to successfully implementing these concepts to build a decent application of video analytics software according to the requirement of the problem.

Date : 19/09/2022



Problem Statement?

Video Analytics:

Banks are using video cameras for the purpose of surveillance at many branches, ATMs and digital lobbies. Getting video analytics of different parameters from the video recording will help the bank to resolve many operational issues at the branches. The bank wants to explore video analytics to understand the customer sentiments, understand the patterns /behaviors/actions in certain branches for proactive surveillance and provide better services to customers.

Why did you decide to solve this Problem statement?

Conventionally bank security is mainly conducted by Security guards. So there is possibility of any error or carelessness in their work. By using camera we can easily surveillance at many branches from single place. There is no carelessness or minimum error occurs during camera surveillance.

To increase the security of bank and ATM machines we can use the camera surveillance. So to enhance the service and security of banks we decided to solve this problem.

User Segment & Pain Points

Which user /advertiser segment would be early adopter of your product & why?

Organizations Like Banks, Educational Institutes, or hospitals Can be early Adaptors of our Video Analytics System. These kind of institutions need video analytics for automating different tasks that would otherwise be done manually such as counting the number of people in a video or identifying specific objects across multiple live stream cameras and security purposes. These Organizations can provide feedback and help to refine the features, and design, of our software product.

Pre-Requisite

What are the alternatives/competitive products for the problem you are solving?

Tech Stack: ● Artificial Intelligence ● Machine Learning ● Deep Learning ● MERN Stack Interface

Requirements: In this, Python GUI to analyse video footage and detect suspicious acts Non-Functional

Attributes: Our System provides Security, Portability, Reliability, Reusability, Data integrity, Scalability capacity, etc.

Our solution has sixth modules. Ones person entries the bank the in-time and photo captured by camera of each person will be stored. In particular area of bank count of people will be recorded. In important premises where confidential documents and lockers are present, only authorized person can enter and if else person is found a alarm generated. If any object like knife or gun is detected, the alarm generates. Sentiments of customers are recorded, if found wrong or suspicious a alert is given. Tampering os cameras also gives out a alert and generates the alarm. This is the way bank are more secured.

Azure tools or resources

Azure tools or resources which are likely to be used by you for the prototype, if your idea gets selected

We will use Azure cloud service to store our all data, database, tables, dataset, etc.

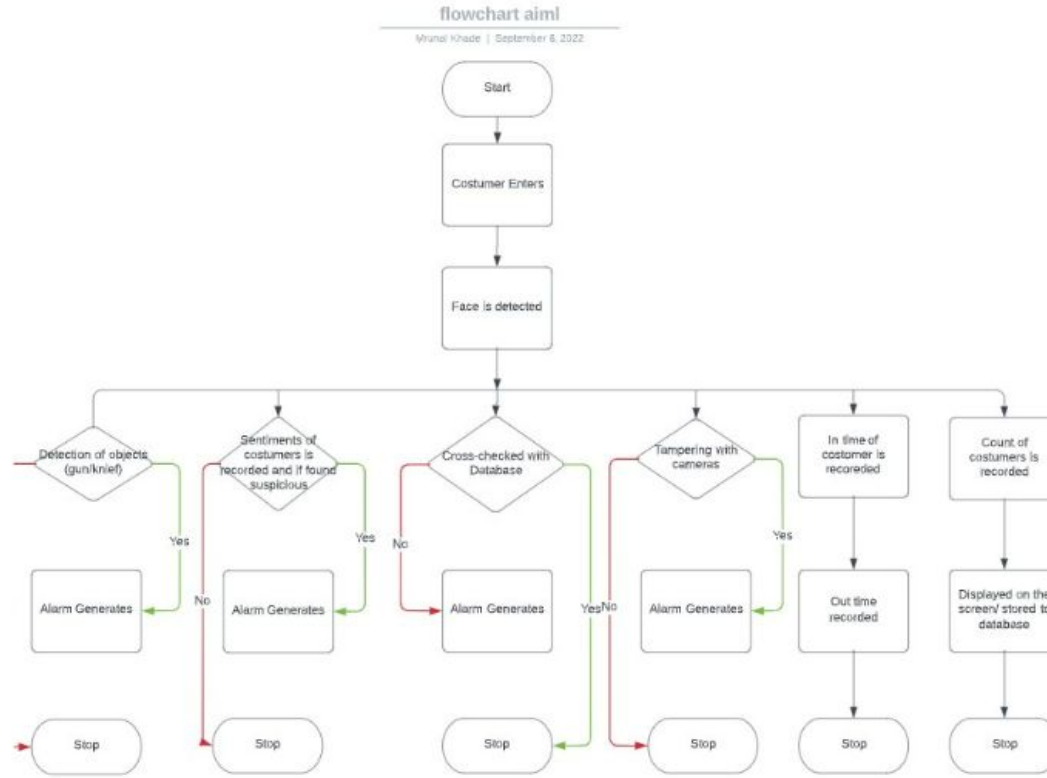
By using various tools or resources of Azure we can access data remotely and data securely stored on Azure platform.

Any Supporting Functional Documents

Present your solution, talk about methodology, architecture & scalability

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Any Supporting Functional Documents



Key Differentiators & Adoption Plan

How is your solution better than alternatives and how do you plan to build adoption?

Our solution basically has 6 modules in it. The first one is the entry record of each one, which will be stored to database. Second is the count of people in a particular place. The third is need of every organisation now-a-days, every company has its confidential areas or rooms where only particular members are allowed to enter, so our solution will detect that unauthorized person has entered that particular area and will generate a alarm, this will check that person with database and if not found will alert us. The fourth is unwanted object (knife/gun) detection. If any of this two is detected by camera a alert with alarm will be generated. The fifth is the sentiments of the costumers, the solution will be detection facial expression and if found suspicious or with wrong intentions will alert us. The sixth is tampering with cameras, if anyone tries to hide cameras or switch off them a alert will be generated. This is what our solution will be providing for Bank of Baroda.

GitHub Repository Link & supporting diagrams, screenshots, if any

Github Repository: <https://github.com/im-shree09/BOB-Hackathon>

How far it can go?

This will be lasting for years more as anything with this advance security is not yet invented.

TECHGIG

Thank You

Team member names :

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Tanaya Bhide.