**Fingerprint Base Atm**

**What is Fingerprint Authentication?**

Fingerprint Authentication for ATM was about the biometric authentication security system for ATM which enabled the fingerprint authentication for traditional cash machines.

The fingerprint authentication problem can be grouped into two sub- domains i.e. fingerprint verification and fingerprint identification. Fingerprint verification is to verify the authenticity of one person by his fingerprint and PIN Code and Fingerprint identification is by matching the information of user such as PIN Code and Fingerprint matching.

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**Problem Statement:**

* In present scenario, traditional ATM system accepts only on the PIN CODE security system, enabling the other person rather than the owner to access the account very easily.
* This ensures that the traditional ATM system is not fully secured.

**Objectives:**

The objective of our project is to provide biometric security through fingerprint authentication in ATM application. In this project we propose a method for fingerprint matching based on matching algorithms. The fingerprint is a person’s most unique physical characteristic.

This software can pick only authentic fingerprint out of crowd, extract that fingerprint is compared from rest of which those are stored in database.

Fingerprint recognition software is based on the ability to first recognize fingerprint, in this technological fingerprint measure the various features of each fingerprint.

**Functional Requirements**

**User Setup:**

In order to use the biometric system, the user will have to create a biometric profile. Profile must be created at a bank location with a bank agent during normal business hours. The profile will be stored on a dedicated biometric database server.

**Welcome Screen User Interface:**

The welcome screen will prompt the user to choose either a Biometric Profile or ATM card

account identification.

**Biometric Profile Selection:**

If user selects biometric profile they will be prompted with a list of options including fingerprint, iris, voice or facial recognition.

**Fingerprint Selection:**

User will be prompted to place their finger on the scanner until the system has recognized their finger print.

**Iris Selection:**

User will be prompted to stand with their eye approximately three inches from the camera and remain until the system recognizes their scan.

**Facial Selection:**

User will be prompted to stand in front of the camera approximately one foot from the machine for facial scanning until recognized.

**ATM card selection:**

User will be prompted to enter their ATM card and then remove.

**Successful Identification:**

The system will welcome the user by name that matches the record on file and prompt to confirm it is their account.

**PIN:**

After user confirms that the correct account has been found the system will prompt for a second form of identification, a PIN.

**Successful Logon Options:**

Upon successful logon user will be prompted to choose a transaction. The options are balance inquiry, balance transfer, withdraw cash and deposit.

**Failed attempt logon:**

System will allow user three logon attempts. After the third failed attempt the system will take a photo of the user to send to a forensics team, lock the users account, notify account holder and bank of failed logon attempts. A message will display notifying the user that the account has been locked and provide a number to contact for support.

**Non-Functional Requirements**

There are requirements that are not functional in nature. Specifically, these are the constraints the system must follow. They are often called qualities of a system. Other terms for non-functional requirements are “constraints”,” quality attributes”,” quality goals”,” quality of service requirements” and “non-behavioral requirements”.

**Locations:**

Biometric ATMs will be located on bank property only. They will be inside the bank,

attached to the outside of the bank or in a bank drive through lane.

**Attributes:**

Security, Convenience and Increased service.

**Scope:**

The scope of this project is to allow the user to get access to their account through the ATM using fingerprinting functionality.

**Functionality:**

One customer at a time can process their account in the ATM machine.

**Reliability:**

The ATM machine must be able to scan or read the card and the fingerprint properly and identify the customer account.

**Performance:**

The ATM machine support only one customer at a time. The speed and accurate transaction decides the performance factor. The screen must be clearly visible to the user.

**Security:**

The pin number and the fingerprint in the card guarantee the security of a customer’s account. The ATM system must not store any of this data in its database. The customer with a pin number and a valid card with valid fingerprint impression is allowed to do all transactions.