ABSTRACT: Unique Identification System is a system in which every individual of a country will have a Unique ID that will help track down individuals, but also make life easier for people as they would not have to submit multiple documents every time they want to avail a new service in public, private, government, etc. This system will include details like the name, sex, address, marital status, photo, identification marks. The UID systems database is a combination of collecting data from different entries made by users to the databases distributed all over the country, storing it in a single centralized UID system. This document tells us about the benefits and capabilities that will be provided to the identification system. It also states the various requirements, specifications, advantages and constraints that the system should abide by. UID system helps in managing a single ID for every person needs in his/her life span i.e. the ID is used as Driving license number, Voter ID card number, registration number in any organization, bank account number, personal or professional details. Security mechanism in UID one wonders For implementing this, two different processes have to be considered, the first one is the recording process and the second one is the authentication process. The main objective of the system is to provide a unique ID (UID) that can verify and authenticate users online in a cost effective manner, and that is fast enough to eliminate duplication and fake identities.

I. INTRODUCTION

The purpose of a Unique Identification System is that it avails a Unique ID to the every registered citizen of a country giving them the advantage of not submitting multiple documents to avail the services that would no longer need to go to various places and prove their identity each time. This scheme is designed for the usage of the UID for multipurpose ways to provide an individual Hassel free, efficient and convenient mechanism to update information. The unique ID will require creation of a database that will links an individual to unique identifier formed, that will remain static over his life span, like parentage, date and place of birth and automatically gets paid like Electricity Bills. The UID database is built by collecting data from every registered user, storing the information and linking all the existing Identity databases (voter ID, passports, ration cards, licenses) into one centralized database from which the information can be accessed. The Rights of the UID system will be responsible to maintain the database and use all necessary procedures for maintaining of UID including arrangements for collection, validation and authentication of information, proper security of information, rules for sharing and access to information, to protection the users privacy.

UidM is related to how the people are identified and authorized and authenticated across all computer networks. It covers problems such as how users provide an identity, the protection of that identity, and the technologies supporting that protection (e.g., network protocols, digital certificates, passwords, etc.).

II. DESIGN AND ARCHITECTURE

In this section, we describe the Algorithm, which is used to explain how the system is going to work, i.e. the process logic behind it, the flowchart, which represents the pictorial representation of the process logic and finally the Data Flow Diagram (Context Level) of the UID system.
2.1 FLOW CHART

2.2 DATA FLOW DIAGRAM
III. IMPLEMENTATION ISSUES/PROBLEMS

3.1 ONLINE AUTHENTICATION
Authentication by taking a fingerprint of a person and sending it across a mobile phone and establishing identity has many challenges. The scanned fingerprint image is sent to the centralized database server by the person, the online authentication is done by a "Yes" or "No" response along with name/age/address. In this process, one of the key issues is to ensure that the scanned fingerprint image to be sent is a secured line i.e. all communications are encrypted and then sent to the other terminal, otherwise the outbound signal of fingerprint data can be manipulated by a hacker. Hence if incorrect data is given to the central database, the response from the authentication process would also be incorrect.

3.3 PRIVACY ISSUES
Privacy is the main issue as all of an individual’s personal information will be stored in one database where the possibility of corruption and exploitation of data is far greater than when having the information disbursed. Risks from this centralization include possible errors in the collection of information, recording of inaccurate data, corruption of data from anonymous sources, and unauthorized access to or disclosure of personal information. The UID authority has to balance privacy and purpose on the data collected from the people. The database of people should not be misused in any way by the personnel of UID authority or others. Suppose the biometric data (digital fingerprint) of a person is compromised, then the consequences of such incidents are fatal because the digital fingerprint is basically used for authentication process. Hence if the critical data of a citizen is compromised, all future authentication process for such person could prove wrong. So, UID must be secure from malicious elements - both internal and external sources.

IV. IMPLEMENTATION REQUIREMENTS

4.1 DEVELOPMENT ENVIRONMENT
I had also developed softwares based on our study on “UID System” which includes the simulation of the prototype, as how will the process logic is implemented in practical conditions, the fundamental properties of the real time face recognition software, which was developed to demonstrate the proposed real time face recognition approach for biometric security purpose.

4.1.1 System/ Hardware Requirements
It is an MS Windows based application. Minimum hardware and operating system requirements in order to run this software efficiently are given below:
- Operating System: Windows 98/ME/2000/XP
- RAM: 64MB,
- Primary Database storage: for storing the primary ID data

4.1.2 Software Requirements
- Eclipse oxygen
- Apache Tomcat 9 Server
- MySQL 5.5
- SQLyog

4.1.3 Performance requirements
1. Static Numerical Requirements:
   a) Number of Terminals Supported: Numeric
   b) Number of simultaneous users supported: ONE
   c) Amount and type of information handled: Alpha Numeric, Numeric, Character, Special Symbol
2. Dynamic Numerical Requirements:
   a) Number of Transactions: ONE
   b) Amount of data to be processed in a timeframe: Alpha Numeric

V. SNAPSHOT

5.1 Home Page

5.2 Gas Billing

5.3 Gas bill Payment
5.4 Hospital Bill Payment

VI. CONCLUSION

Unique Identification System will be beneficial to the Users as it is a unique ID which will help in verifying to login to system which contains basic information of every user. After the ID will be provided there will be no need to carry driving license, voter cards, pan card, etc for any private work. For example, for opening a new gas agency account one has to provide his/her Unique ID only. But to some extent it is harmful to the general public as all the data related to them is stored on computers and can be misused by hackers if the multiple security strategies will not be adopted.

The UID authority in specific should make sure that we have the highest standards of integrity, openness, transparency and process in all stages of UID System.

Implementing and maintaining the UID system will be high costs with needed risks management to safety, security, privacy, freedom, and liberty. The UID project should not become compulsory until there is an established judicial overview to ensure that the privacy rights of citizens are not unlawfully violated.

The main objective of the system is to provide a unique ID (UID) that can verify and authenticate users online in a cost effective manner, and that is fast enough to eliminate duplication and fake identities.

REFERENCES

[1] 'Unique Identifiers: a brief introduction' by Brian Green and Mark Bide (February 1999)