

Aadhaar Secure Travel Identity

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ABSTRACT:

This paper proposed a public transport system which focuses on secure travel technique by using Aadhaar card as a travel card. In this study we aim to explain the use of mobile services like mobile ticketing in public transportation firstly, this paper provides a brief glance at secure travel system, since the passengers flow in public transportation is increasing day by day as the population is increasing secure travel is an important social need of today which done by using Aadhaar card. Aadhaar card. Aadhaar consist of 12-digit unique number which is the unique identification authority of India (UIDAI). For each and every individual, transaction –ID for every customer will be unique. Customer detail will be stored in the database for each and every route, thus it would be beneficial for retrieving the data from database in case any disaster or terrorist attack providing efficient and convenient mechanism for recharge facility for the customer make this system user friendly. It presents a brief review on Aadhaar card, and discusses the scope and advantages of linking Aadhaar card to fake travelers. Further we present various cases in which Aadhaar card may pose security threats. In this paper followed by a discussion on the loopholes in the existing system. We conducted literature survey based on the various research articles, leading newspapers, case studies and categorized the various cases into three categories. Aadhaar project is one of the significant projects in India to bring the universal trend of digital innovation. The launch of this project was focused on the inter-operability of various e-governance functionalities to ensure the optimal utilization of Information, Communication and Technology Infrastructure. Towards this Government of India has recently made Aadhaar card mandatory for many government applications, and also has promoted Aadhaar enabled transactions. There are many issues related to security and privacy of the Aadhaar data need to be addressed. This paper highlights such cases.

Key Words : Aadhaar card, Registration, verification, passport checking.

1.INTRODUCTION:

Advancing technology has brought a lot of innovation and improvement to this sector and still there is scope for lot of advancement. Thus, secure travel is an important social need of today. Many of the regions in the country are afflicted, at differing intensities by various insurgent and terrorist movement. Due to rapidly increasing number of passengers there is a bottleneck on the existing system due to long queues and something that will enable faster, smoother travelling is the need of the today. Nowadays, authentication in a country is a necessary entity. In today's works booking a bus ticket and its Aadhaar authentication is a very essential entity. A reservation and current ticket booked for a person travelling on that ticket should be authenticated. This system which consists of sending ticket as a SMS (short message service) on the register mobile[1]. In conventional or existing paper based ticket system has certain drawbacks, since lot of paper ticket important social need have today which done by using are being printed. And after travelling, the passengers usually throw away the ticket. Again large numbers of trees are being destroyed and they ultimately pollutes the environment and also lots of paper is consumed. The proposed system consist of secure travel using Aadhaar card, Aadhaar is a 12-digit unique number which is the unique identification authority of India (UIDAI) will issue for all resident in India (on a voluntary basis). The number will be stored in centralized database and linked to basic demographics and biometric. Aadhaar card is unique and robust enough to eliminate the large number of duplicate and fake identities in government and private database[2]. The database contains detail information about bus and the passengers travelling in that bus, the source and destination information of each and every passenger will be further useful for retrieving the data in any accidental case, terrorist attack, disaster situation and also analyzing the

frequency of buses for particular route. Aadhaar project was introduced under the scheme 'UIDAI' (Unique Identification Authority of India) by the UPA (United Progressive Alliance) government in year 2009. In fact in 1999, Former Prime Minister of India Shri Atal Biharee Vajpayee had suggested identity cards for the people living in the border area, and the idea was later accepted in 2001 by the Former Home Minister Lal Krishna Advani, who recommended a multi-purpose National Identity Card. Later in 2009, UIDAI came into existence under the UPA government, and Nandan Nilekani, co-founder of Infosys was appointed as the chairman of the Aadhaar Project. Aadhaar card contains the demographic features such as name of the citizen, Father/Mother's name, Date of Birth, Sex, address of the citizen, and biometric features such as photograph, fingerprints and iris (eye) details. The demographic features as well as in the form of Quick Response (QR) code along with a 12-digit unique identity number called, Aadhaar, are printed on the card issued to every citizen. All the demographic and biometric data are stored into one centralized database, and this project has been reported as a world's largest database management and Biometric ID system respectively by Forbes and The Times of India. The UIDAI project provides the online support to change the demographic data of Aadhaar Card using SSUP (Self Service Update Portal) from UIDAI official website (uidai.gov.in). For an instance to change the name, one needs to submit the Gazette Notification of India mentioning that 'required person's name has been changed from old name to new name'[3]. To update DOB (Date of Birth), the required documents are Birth Certificate issued by the District Municipal Corporation, and for the people who don't have a birth certificate and were born before 1989, they can provide an affidavit to change their DOB. Further, if one don't have the required document to change the DOB, then SSLC (Secondary School Leaving Certificate) or Passport can also be taken into consideration. For changes in address, electricity bill, landline bill, credit card bill less than three months old, bank passbook, Voter ID, Passport or a rental agreement, and the scanned copy of proof of identity is sufficient[4]. Changes can also be made to the Gender and Mobile number as well, and proof of identity is required for these purposes[5]. For all the demographic changes the authentication is being checked through an OTP (One Time Password) sent to the registered mobile number[6]. However, the biometric data can't be changed[7]. Nowadays the government of India is

linking the Aadhaar card with many government functionalities, but there are many security and privacy issues of the Aadhaar database need to be addressed. In this paper, discusses the scope and advantages of linking Aadhaar card to various systems. Present case studies in which the implementation of Aadhaar card may lead to security threats. In the observations of the honorable Supreme Court of India are discussed. Further presents the discussion on the loopholes in the existing system along with conclusion[8]. The objective of this section is to highlight the scope and advantages of linking Aadhaar card to various systems. The government of India has been linking the Aadhaar card with various government schemes such as for cooking gas subsidies, house allotments, school scholarships, admission into remand and welfare houses, passports, e-lockers (eg. Digilocker), for archiving documents, bank accounts under PMJDY (Pradhan Mantri Jan Dhan Yojana), provident funds account, pensions, driving license, insurance policies, loan waivers and many more. Recently it has also been made mandatory for ATM Cash Transaction, railway reservation and applying PAN (Permanent Account Number) card, and filing income tax returns.

2.RELATED WORKS:

This system is used to create a tool that manages the handling of passport and license using the unique identification associated with each individual. The application deals with allowing the citizens to register for a unique identity. The ID is supported with a pin. Citizen's being issued passport or those have a passport is then associated with the UID. This helps the citizen to travel abroad without having the passport. The UID will provide access to the passport from the airport for the airline from the centralized server. The details and profile of the citizen with the photo can be viewed as part of security check. The crime department can also use the application to trace or stop any person from travelling abroad. The airline gets a notification when the airport staff has access to the citizen's

passport. The crime department can stop or trace either using the UID or passport number. They could also pass the name of the person and the system can generate a list of photo previews of people having a passport. The citizen uses the Aadhaar scheme to apply for license. The details of the citizen are picked from the registration database. The citizen is provided with the test details by the application. The details contain the location, date and time information. The test details are provided to the citizen on completion of the test. The license issue and denial is recorded.

3. FEASIBILITY STUDY:

Preliminary investigation examines project feasibility; the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All systems are feasible if they are given unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Operational feasibility
- Technical feasibility
- Economical feasibility

3.1 OPERATIONAL FEASIBILITY:

The application smart audit does not require additional manual involvement or labor towards maintenance of the system. Cost for training is minimized due to the user friendliness of the developed application. Recurring expenditures on consumables and materials are minimized.

3.2 TECHNICAL FEASIBILITY:

Keeping in mind the existing system network, s/w & H/w, already available the audit application generated in java provides an executable file that requires tomcat that provides compatibility from windows98 without having to load java software. No additional hardware or software is required which makes smart audit technically feasible.

3.3 ECONOMIC FEASIBILITY:

The system is economically feasible keeping in mind:

- ❖ Lesser investment towards training.
- ❖ One time investment towards development.
- ❖ Minimizing recurring expenditure towards training, facilities offered and consumables.
- ❖ The system as a whole is economically feasible over a period of time.

4. EVALUATION:

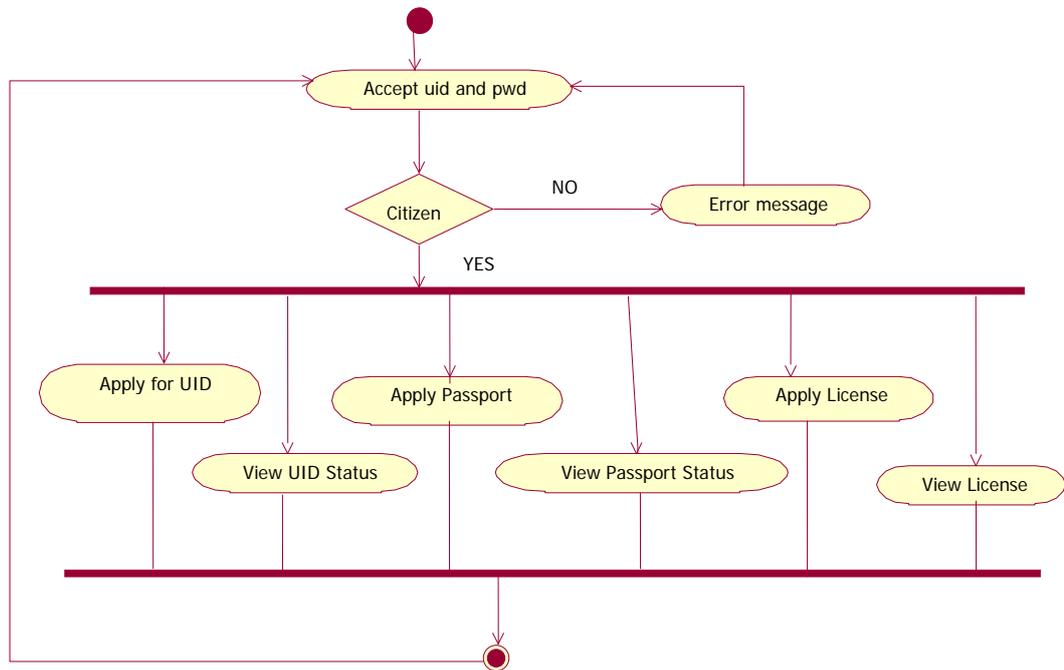
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5.1 Citizen Module:

Citizen module is used to accept uid and pwd if it is accept it will used to apply for uid ,view uid status,apply password,view passport,apply license and view license .

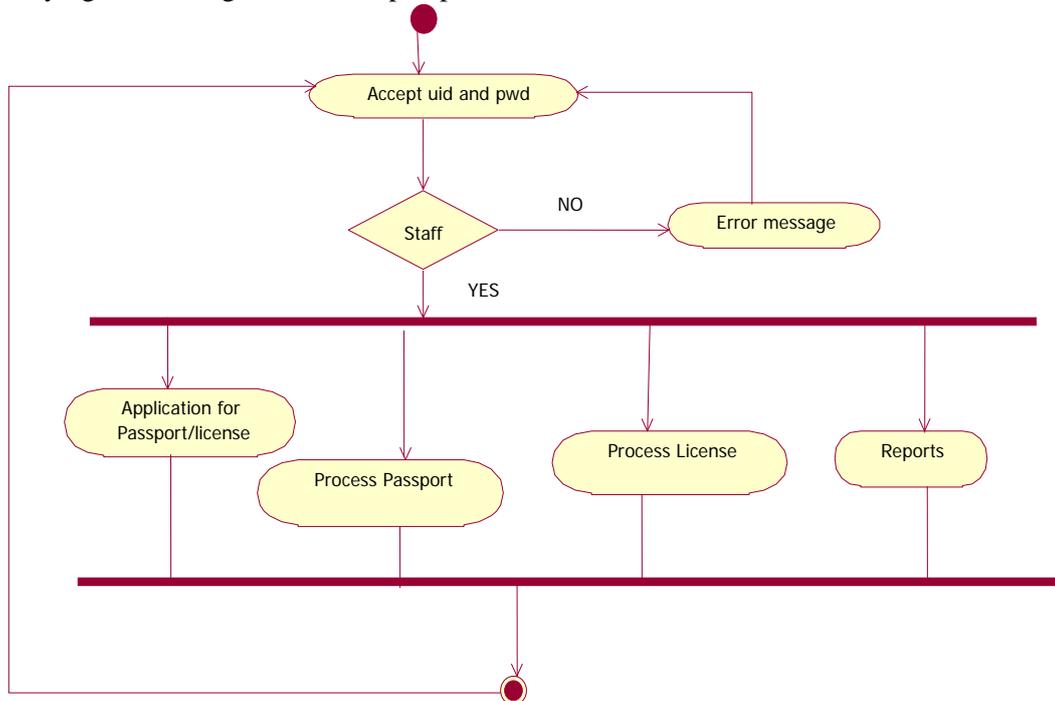
5.MODULES:



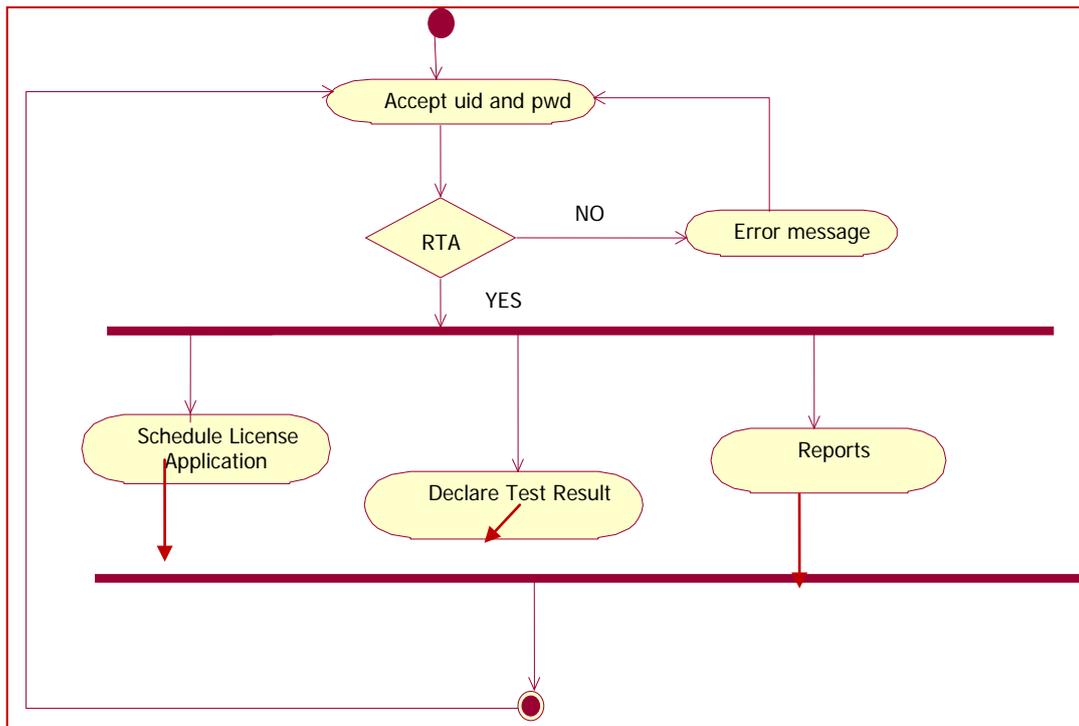
5.2 Aadhaar Staff Module:

Aadhaar staff are worked for verifying the driving license and passport

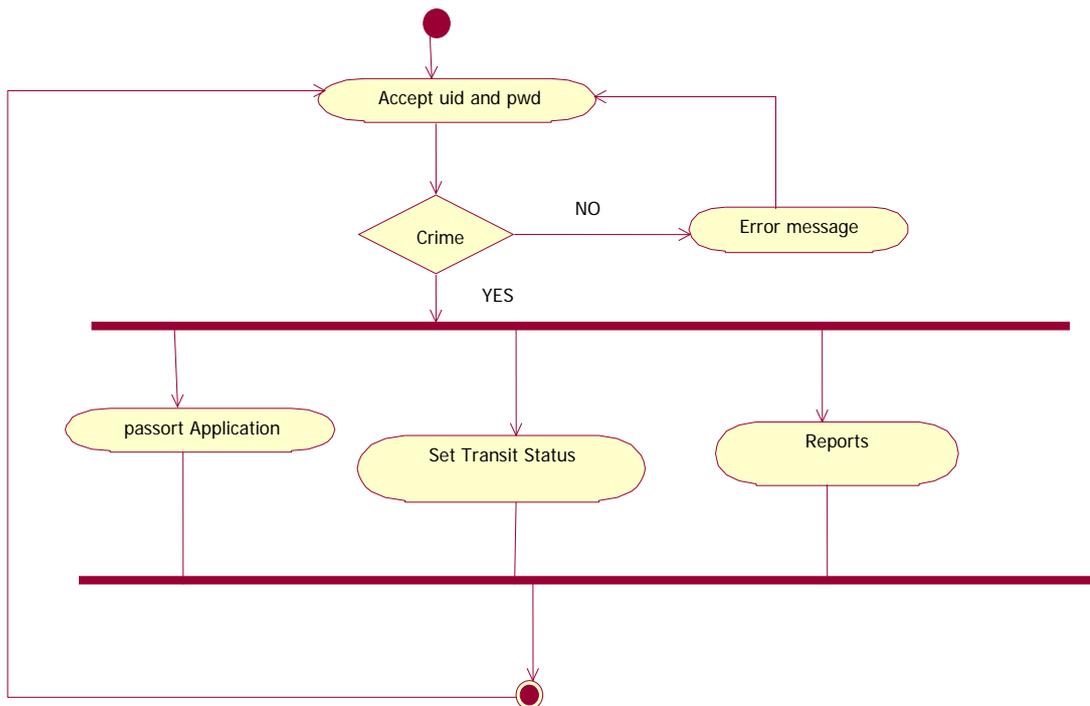
and they will process the licence and passports and reports of the citizen.



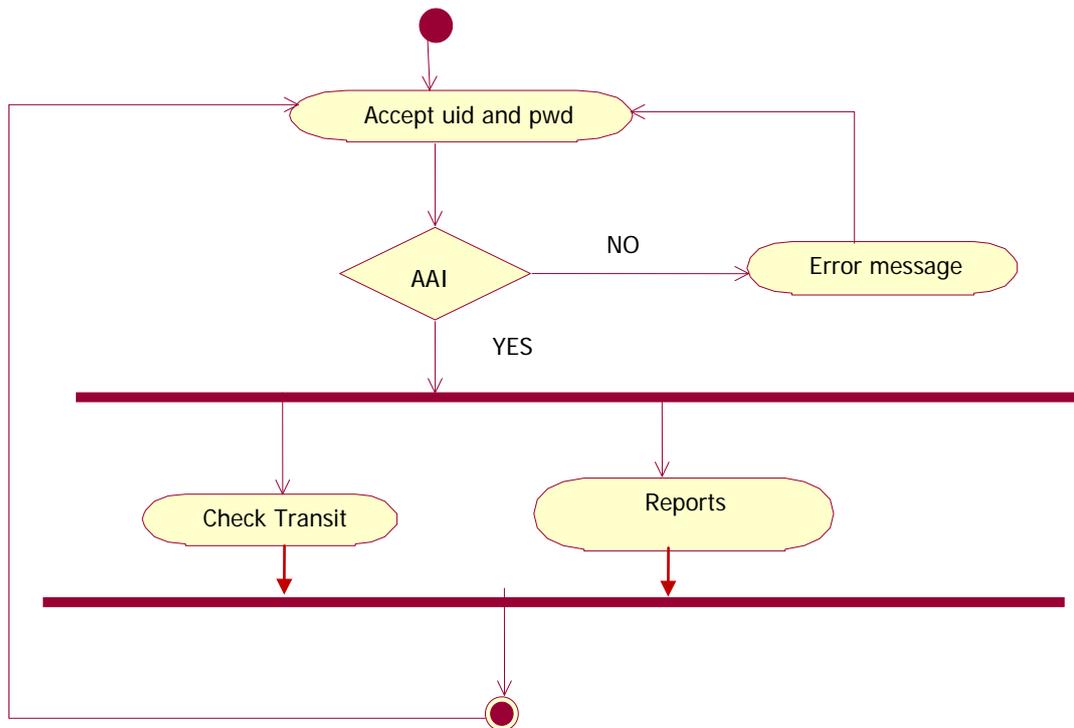
5.3 RTA Module:



5.4 Crime Module:



5.5 AAI Module:



6. INPUT AND OUTPUT:

It is based on the visible features of the system that are weighed accordingly to produce an overall score. The intent is to construct a measure of product size that can be available easily in the development process. It is based on the notion of function points regarding as a measure of functionality of the system. The starting point of the construction of the model is to determine the number of items occurring in the system. The items are as follows:

External inputs are the inputs from the user that provide distinct application oriented data. Examples of such inputs are filenames and menu selections.

External outputs are directed to the user, they come in the form of various reports and messages.

User inquiries are interactive inputs requiring the response.

External files deal with all machine readable interfaces on other systems.

Internal files are the master files in the system.

These items are related differently according to their complexity that is given below in the following table.

Item	Simple	Average	Complex
External Inputs	3	4	6
External Outputs	4	5	7
User Inquiries	3	4	6
External files	7	10	15
Internal files	5	7	10

Here, first the Unadjusted Function Count (UFC) is determined using the formula

$$UFC = \sum \text{item}_i w_i$$

In the second phase, refining the Function Point Count by including Technical Complexity Factor (TCF) and multiplying the value with UFC by using

the formula determine Adjusted Function Point Count (FP):

$$FP = UFC * TCF$$

Where TCF is calculated using the formula:

$$TCF = 0.65 + 0.1 \sum f_i$$

Where f_i specifies the detailed factors contributing to the overall notion of complexity.

The various factors are as follows-

- Reliable Backup and Recovery
- Distributed Functions
- Heavily used Configuration
- Operational Use
- Complex Interface
- Reusability
- Multiple sites
- Data Communications
- Performance
- Complex Processing
- Installation Ease
- Facilitate Change

Here each factor is rated on 0 to 5 scales with 0 being irrelevant and 5 standing for essential. If all the factors are irrelevant then the constant 0.65 is used otherwise the constant 1.35 is used.

External inputs- 63(appno,ano,apwd,cname,caddr,dob,fname,cno,occ,ph,pin,status..)

External outputs – 5 (UID allocated, passport dispatched, license dispatched, transition status, change password)

User inquiries – 5(passport status, license status, view passport, view license,reports)

External Files – 1(photos)

Internal Files – 9(User's info files)

Considering the Data Automation System, we assume the complexity of all items to be average.

$$\begin{aligned} \text{So, UFC} &= (4*63) + (5*5) + (4*5) + (10*1) + (7*9) \\ &= 252 + 25 + 20 + 10 + 63 \\ &= 370 \end{aligned}$$

$$\begin{aligned} \text{TCF} &= 0.65 + 0.1(5 + 0 + 0 + 5 + 1 + 1 + 0 + 3 + 0 + 0 + 1 + 2) \\ &= 2.45 \end{aligned}$$

$$\begin{aligned} \text{Therefore FP} &= \text{UFC} * \text{TCF} = 370 * 2.45 \\ &= 906.5 \end{aligned}$$

7. SYSTEM ANALYSIS:

7.1 Existing System:

- The citizen is identified by multiple identity cards.
- There is no unique identity in India.

- Passport has to be carried for travel abroad.
- Crime department cannot talk to the private airlines to trace or stop travel of a citizen instantly.

7.2 Proposed System:

- A citizen is provided with a UID. The id is associated with a pin number.
- A physical verification is taken up by the surveyor on whose confirmation the ID is issued.
- A citizen holding the ID can only apply for passport or license.
- Based on the type of application the application is forwarded either to the Police department for verification or to the RTA for driving test status.
- Citizen has an online mode where he can check the status of each application.
- The crime department integrates with the airlines and identifies citizen who has a conditional travel.

8. CONCLUSION

The application can now identify each individual uniquely. Every citizen is identified for all the Govt transactions with the help of his Aadhaar card. The application integrates various Govt departments into a single point of Contact. This helps in avoiding unnecessary delays or find where the delay is happening when applications are

processed. The application can be extended to all the Govt departments with modification. New modules can be added without affecting the existing modules.

9. REFERENCES

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