

“E-PASS SYSTEM FOR COVID-19”

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Abstract - We have seen the craze of computer world is more and increases rapidly. Computer is a need of our generation to achieve our goals and get a success. Computer is a system in that all the information need to human being is stored securely and confidentially. Now these computer system is world accepted system. In year 2021 covid-19 pandemic situation is increased suddenly. Indian government take decision to handle that situation with the help of world health organization and take a decision to activate lockdown. In that pandemic situation no one can go outside the house to work. Only doctors and government employees goes outside the home for his work. But in critical situation people want to travel or go for hospital is problematic. We provide a platform to people solve that problems. We are developing a system entitled "E-pass" generation system based on computer and information system. In that system people can register in our system and get an online permission of government and get a document to that person easily get a permission to travel for him. Our system is helpful in curfews and pandemic situation to solve people problem. "E-pass" system is save time and money of people. "E-pass" generation system is helpful in pandemic and curfews situation and it is design for future problems.

Key Words: Healthcare, Community, Health literacy, Curfew, E-pass, Management etc.

1. INTRODUCTION

To make our system effective and efficient we have used the application of artificial intelligence, namely OCR which provides authenticity and accuracy to our system. We can easily generate and manage the E-pass through this online portal. This technology will provide the safe movement of the people. During lockdown electronic pass generation is used by many people who need a pass for traveling. The commonly used online system is adopted by our government also and if you need an e-pass then fill the form and you will be given an e-pass. But in our system, the e-pass will be generate automatically using the valid data. The OCR technology makes the system more authenticated and fast. The patient fills source and destination address along with the prescription only. It will scan the whole prescription by using the tesseract. It is an optical character recognition engine with 'open-source' code, this is the most popular and qualitative OCR-library. After this, the patient prescription is validated using the data present in the

database. According to that data, the pass will be issued to the patient. If the patient information doesn't matches with the database then it will be rejected. Thus, it provides a secured movement within the country. The main target of our system is very specific and it will generate an e-pass for the patients. This can be complete using OCR that provides more efficiency to our paper instead of manual work. The working of OCR makes the paper efficient and improves it as compare to the manual system. As we are currently living in the 21st century then we must be more advanced than the traditional old methods. Admin manages the details of e-pass issued to a person during a lockdown/ Curfew. This system that transfer data processing at a very fast-speed in a systematic way and the technology is based on the web.

The main purpose of the study was the generation of curfew e-pass and its management for human welfare that will be more efficient and synchronized than the current manual system. Our system will provide the following functionalities: A. The patient can apply for the e-pass (i.e. includes the source to destination address) and upload the prescription prescribed by the doctor and submit the application to the OCR for further verification. B. Protect the integrity of the system (i.e. no unauthenticated user is allowed to upload the e-pass). C. Patient can login to his/ her account by providing details i.e. username, password and verification code (captcha). Admin can also login in similar way. D. The next functionality is to validate the details of the patients automatically using OCR (optical Character Reader). OCR can extracts and validate the details. "Optical character recognition (OCR) technology" is a 'business solution' for "automating data extraction" from 'printed' or 'written text' from a scanned 'docs' and 'image' file and then convert in the 'text' into a 'machine-readable' form to be used for 'data processing' like edit and search the data. E. Download e-pass, after checking the authenticity of the applicants.

1.1 Objectives of the work

Facing restrictions on travelling, participation (attendance) in "office and wedding function". The E-pass system has been reintroduced for 'citizens' should be use in case emergency.

1.2 Project Scope

In 2021 year covid cases are increased extremely in India and all other countries. To reduce that covid cases India

government take a decision with help of world health organization system (WHO) to lockdown whole Indian country. No one can go outside the home and travel. Due to that decision taken by Indian government all the people are stay in home to handle covid situation. Only some doctors and government employees are goes outside the home for work with permission of Indian government. In lockdown situation Indian government watch on people by police. But in critical condition people didn't go outside the home due to it not take permission to government to go outside the home .To handle that situation we provide an online "E-Pass "Generation system. In our system we provide a function in which all the people get a permission of government online and go outside the home for work and hospital treatments. So these system is very helpful for in pandemic situation and also if lockdown occur in future then also these system handle all E-pass problems.

2. REQUIREMENTS

2.1 Functional Requirements

1. User Interface
2. Prescription upload
3. View Status of e-Pass
4. Database Connection.

2.2 Safety Requirements

1. Higher Level Authentication.
2. Keeping all confidential data secret.
3. All Information Shared with Encryption.

2.3 Database Requirements

1. System-Level Data Recovery.
2. Application-Level Data Recovery.
3. Application Data Availability.
4. Multi-Level Data Security.
5. Application Performance.
6. Scalability: Users
7. DBMS Autonomics and Process Automation

2.4 Software Requirements

1. Eclipse
2. JSP
3. Servlet
4. CSS
5. JavaScript

3. SYSTEM DESIGN

3.1 System Architecture

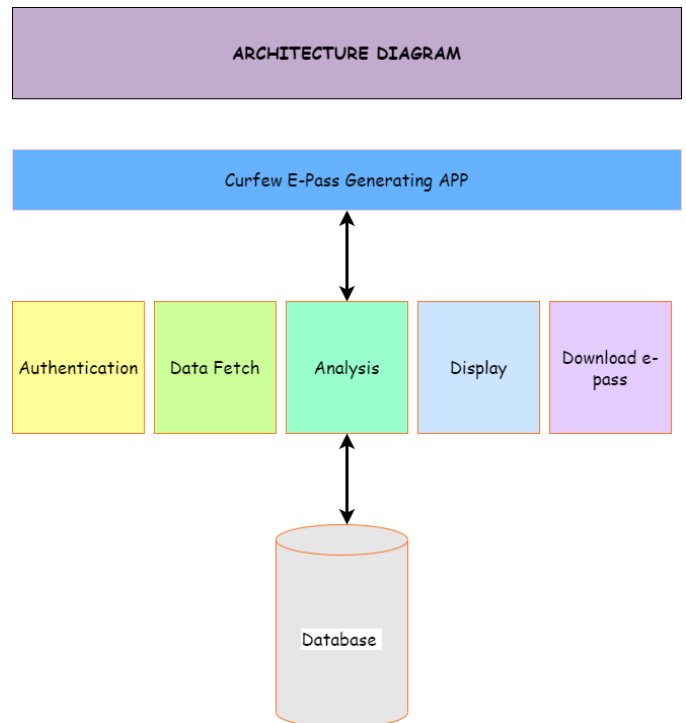


Fig -1: System architecture

System Architecture of "E-pass System for covid-19 is includes Authentication, Data Fetching, Analysis, Display, Download E-Pass and Database. Firstly when user is register or login that time data authentication process is done. Data authentication means User request access to be a "protected resource". The server return dialogue box that request the "user name and password". The user submit the "username and password" to the server. The server identified the 'credentials' and if successfully, "returns the requested resource". Data fetch in which you need to first load some data from your database. The example uses entities from our system sample data but you can use entities as well. The patient data analysis and compare through optical character recognition algorithm using project database patient data.

Validate means if admin validate patient data means patient uploaded prescription data validated right then automatically generate patient e-pass on patient side otherwise if patient prescription data not valid properly then patient e-pass cannot be generated on patient side. After successful of all process then patient download his own e-pass for travelling after his login.

3.2 Data Flow Diagram

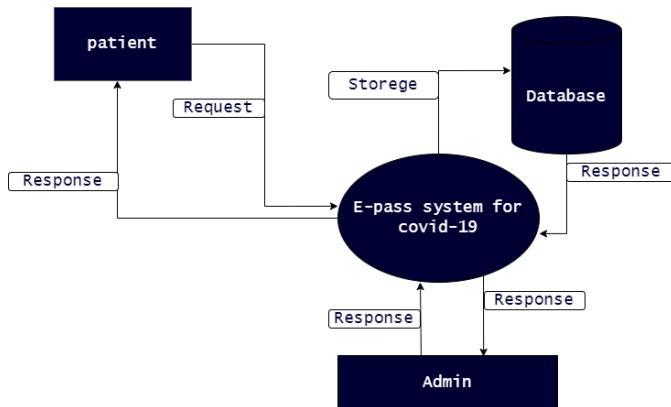


Fig -2: Data Flow Diagram

4. SPECIFICATIONS

4.1 Advantages

1 e-Pass Apply:-

In Current Situation the e-Pass Apply System is available but by using this platform we enable e-Pass in whole sector by that we reduce the money as well as time.

2 Zero Paper Work:-

In this platform we store patients as well as organizations data digitally so no paper work is boycott and make system environment friendly.

3 Professional Environment:-

On this platform we provide the opportunities for the job seekers as well as medical student for internship and Expertise to contribute and share their knowledge.

4.2 Applications

1. Curfew e-Pass Management System
2. Covid-19 E-Pass System
3. Pass Generation System
4. Online E-Pass System
5. E-Pass for Travelling in Covid-19

4.3 Limitations

- 1 No Permanent history of patients.
- 2 User Data will be stored for limited period.

3 Limited to a single state.

4 Tracking each person is not possible because the population of the country is too high.

5 Only applicable for the doctor-patient service.

6 Availability of all-time net connection

5. CONCLUSION

In this paper we have presented the resource available today to transform the healthcare sector and how to use the digital platform effectively to overcome various health problem. Today technologies are growing day by day effectively. Computer is basic requirement of human being. Using that technology we developed a system based on healthcare community to help people in critical situation. We developed an application entitled "E-Pass" System for covid-19".These application helps to people to help in curfew, lockdown to help in e-pass creation. These application saves money and time of people also this application helpful in curfew and lockdown to avoid crowd.

REFERENCES

- [1] 'Xinyue Zhil', 'Yanl Jing', 'Fanxiao Jiang', 'Guowei Huangl, Jie Zhang I' and YaBing L "Attitude and requirement for Health Emergency Curriculum among medical students"2012.
- [2] 'Charith Silva', 'Mahsa Saraee' and Mo Saraee "Data Science in Public Mental Health: A New Analytic Framework:" 2019.
- [3] 'Anita Honk'a, 'Kirsikka Kaipainen', Henri Hietala, and Niilo Saranummi. "Rethinking Health: ICT-Enabled Services toEmpower People to Manage Their Health" 2011.
- [4] 'Jim Black, Fernando Koch', 'Liz Sonenberg, Rens Scheepers', 'Ahsan Khandoker' "Mobile Solutions for Front-Line Health Workers in Developing Countries" 2009.
- [5] 'Katarzyna Wac' and 'David Hausheer.' "Software Defined Health" 2015