Quarantine Management System using PHP and MYSQL

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ABSTRACT

Governments and organizations use quarantine process to stop the spread of infectious diseases. Quarantine processes are for groups of people or individuals with no symptoms but were exposed to the infection. A quarantine gets them far from others so they don't unknowingly infect anybody. The "Quarantine Management System" has been developed to provide health and medical assistance for the persons who are quarantined as a part of COVID management measures.

People in quarantine are supposed to keep distance and stay distant from other people around them. Since they should be safely isolated, they have less chance for physical communication with others and to go out. In such a situation, "Quarantine Management System " helps them to communicate people related to their health concerns. They can upload their daily health status which is evaluated and consulted by a doctor, and if they feel they can directly request consultation with a doctor. They are also provided with needed medicine delivered to the quarantine spot/home.

The purpose of Quarantine management system is o automate and generalize the existing manual system with the help of a web based software and database so that the effective implementation of the protocols of quarantine are ensured and the crucial data or information collected from the quarantined people can be stored in a safe and secure database for a long period with high availability and accessibility. This also facilitate the analysis of collected data and retrieve useful information. The software and hardware tools required are easily available and are easy to work with.

Keywords: Quarantine Management, Database, Isolation, PHP, Web Application, Automation, Healthcare

INTRODUCTION

The "Quarantine Management System" has been developed to overcome the problems prevailing in the current manual system in practice. This web based software is supposed to wipe out or diminish the hardships and drawbacks in the existing system. Moreover this system is designed for the particular need of the government authorities and organizations to carry out operations in a generalized and consolidated manner.

The application is designed and developed in such a way that it avoids the possibilities of errors while receiving data from the user. It also validates data while entering and shows the error messages when the user enters invalid data. No formal knowledge is required for the client to utilize this framework.

Literature Survey-

In Hong Kong, social distancing has been practiced so as to limit the spread of COVID-19. This examination plans to analyze the progressions in actual wellbeing, psychological well-being, and social prosperity experienced by neighborhood inhabitants who were homebound during the pandemic.

Publications from World Health Organization

World Health Organization has released strict protocols and guidelines regarding the quarantine, isolation and treatments of Covid suspects and positive tested individuals.

Considerations for quarantine of contacts of COVID-19 cases
19 August 2020

Home care for patients with suspected or confirmed COVID-19 and management of their contacts
13 August 2020

Criteria for releasing COVID-19 patients from isolation
17 June 2020

Advice on the use of masks for children in the community in the context of COVID-19
1 April 2020

Considerations for implementing mass treatment, active case-finding and population-based surveys for neglected tropical diseases in the context of the COVID-19 pandemic
27 July 2020

Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic
06 May 2020

Proposed System-

People in quarantine are strictly supposed to keep distance and stay distant from other people around them. World Health organization has released strict protocols and guidelines regarding the quarantine, isolation and treatments of Covid suspects and positive tested individuals. But when handled locally, the effective implementing of these protocols can not be assured always. Also the data about the Covid suspects and positive tested patients such as their locations, health conditions, treatment details etc are crucial in preventing the spread of the pandemic. So these data should be monitored, managed and recorded with high priority and importance.

Using the scripting language PHP and database management system MySQL, a Web Application is created, which frequently collects the data from the quarantined persons regarding their health status. This data is classified, stored and analysed with the help of healthcare experts and doctors. This system also provides the assistance of a doctor and facilitate the delivery of essential medicines to the needed ones. Using this we can make sure that the quarantine standards and guidelines are followed in every quarantine spots for the prescribed time period.

Conclusion

Adaptation of technology can enhance the outcome of most of the manual processes in every sector. The use of a web application saves time and reduce the workload of the manual system. The manual system efficiency is poor with the lot of paper keeping works. This increases the workload of the employees and the users. The proposed system saves time and reduces the workload of both the existing system users and employees or in this case volunteers who collects data from the quarantined people. It is very much faster than the existing system users. The data security is very high. Its implementation is very easy. The proposed system helps the admin in many ways.

The development of the project includes various steps such as data collection, designing, coding, testing etc. Software is not perfect all the time. All the software needs periodic maintenances and updating. The users are given passwords for security reasons. The system has enough flexibility to meet the needs of the authorities or organizations. The system is efficient and accurate. The project helps to save time, and it reduces the amount of human labor in the process. The proposed system is much faster than the existing system. The crucial and sensitive data collected from he users is stored in database in a safe and secure manner. This system facilitates the classification and analysis of the collected data and the extraction of information from them. All these can be done within a short time period. This application have a high relevance and utility in conditions like the current situation of Covid 19 pandemic.

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