DISASTER MANAGEMENT SYSTEM USING WEB

SAM WESLEY R[1], SYED IBRAHIM S[2], TAMILANBAN T[3], K JASON[4]

[1,2,3]IV YEAR CSE, JCT COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE, TAMIL NADU, INDIA
[4]Assistant Professor, JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India.

---***---

Abstract — *The disaster management system using web can provide all the helpline and it is used for public welfare and efficient management of disaster. However, the existing system have some such like less accuracy and less prediction. This paper present web application and mobile app for disaster management for public welfare and efficient management easily. This application includes all the detail about helplines and government bodies to be contact in the stage of emergency. Then we have to upload all the news. We have all the government data set and disaster dataset. All the dataset has to analyze then that information is sort it based on user needs. Then it uploaded to this web app as well as mobile app. GPS is used to identify the areas of concern and giving the exact location along with a future prediction. This web application is developed by using HTML, CSS, JavaScript, PHP, SQL and Java. This paper main goal is to develop a web app and mobile app for disaster management. This system is very useful for at the time of disaster.*

Keywords — disaster management, mobile app, data set, helplines, navigation-help.

1. INTRODUCTION

A Disaster is a consequence of a sudden disastrous event which seriously disrupts the normal function of the society or the community to the extent that it cannot subsist without outside help. Disaster is a very well-known word that disrupts life, livelihoods, economy etc. in short, everything that makes society work. The past disaster management systems are widely existing at many places due to some disadvantages. However our Disaster management system using web have a) Accuracy b) Increased search speed c) Quick Prediction d) user can search for the helpline at any point of time e) Predict the exact location of concern areas f) Person names has been registered g) Help list will be Updated h) Through mobile application also user will give request for help. This paper presents the web app that is used for disaster management system for public welfare and efficient management of disaster.

Recent natural disaster has highlighted the need for disaster preparedness, planning and management. In this paper we focus on developing structure of element for web-based disaster management system. The ontology structure is further coded into a web-based system that allowing easy online access. People can access this app at anywhere. This system has interface that provide easier communication. Whatever happened during the disaster, people can update the information news happening around the world through the internet. Once the user logged the web app or mobile app, the user can get all the information and the system also provide feedback form for sharing users review.

2. PROPOSED SYSTEM

The proposed system includes various details about disasters, concern areas, helpline, government bodies, shelter homes. This web application used for accessing any information and basic needs for users at the stage of emergency. In this system we use the GPS technique so we can identify the areas of concern and giving the exact location along with the future predictions. It includes all the details of the helpline of the government bodies to be contacted in the stage of emergency. The system should have an add on mobile app for easy access at anywhere at any time. HTML, CSS, JAVA, SQL, JAVASCRIPT and PHP are the core language used for developing this software. The user can upload any information related to this and can also access any information at any time by using this web application and mobile app.

3. MODULES:

ADMINISTRATION SYSTEM:

The administration system has admin login and database. The admin controls the entire software the genuinity and trustworthy of the application relies on this domain. Admin will have the cross check over each and every aspect of the app which include the database along with the client post. Notifications and Information will be sent to the users on a particular interval of time.
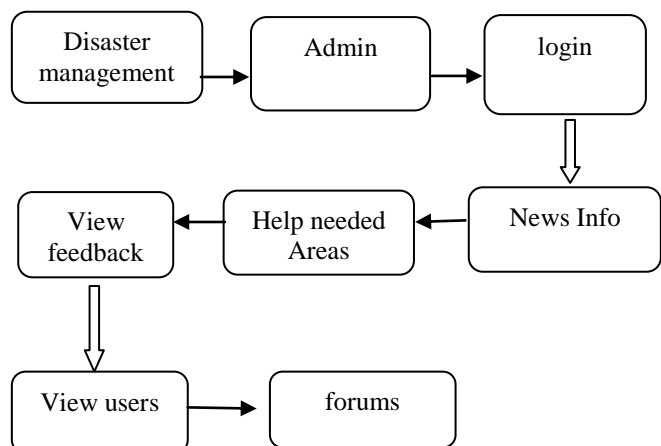
Technical input:

There will be a highly confidential login details for the admin in the first setup.

User/client system:

The entire system is developed with various aspects of database and helping hands in order for the complete client satisfaction. The user system has user login. Once the user logged to this system, the user can view the details and give the user feedback. Forum also included in the user system so the user will update any information regarding this.

4. TECHNICAL SETUP:

1) User registration/sign in

2) login [valid id is must]

3) post option [help or data notification]

4) application tracking [to end]

5) feedback options

```
user  →  Sign in  →  Maintain
                         ↓
forum  ←  feedback  ←  View details
```
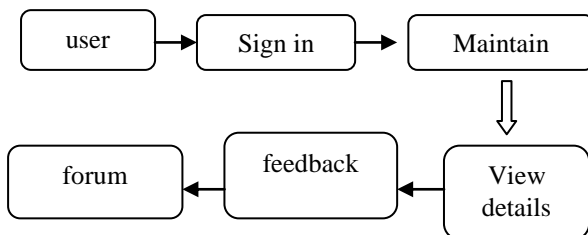
DATA COLLECTION SYSTEM:

Data collection system is the core of this app and it also serve as an interface between the admin, client ad rescue team.

The data collection system includes the geographical map and other data's like number of people, cattle, etc. in a given area along with its vegetation, climate predictions are tied up with weather forecast department which adds on the app to be all in one self-dependent app.

The core sections make the app superior over all other innovations as of a trustworthy and dependent app.

DATASET:

This include all the details of the government bodies and disasters that happened nearby. All the dataset has to analyze then that information is sorted based on the user needs. Then it uploads to this website and mobile app. They can view either mobile app or web app.

DATA PREPROCESSOR:

It converts quantity into numbers and used for classification. Classification and regression are involved in this process. It used for analyzing data and used for the classification and regression, dresses and foods can be classified based on the priority. They can be set to used differently by the gender.

DATA PREDICTION:

The final stage of the data set is data prediction.

It predicts the path and vulnerable area to be affected by the disaster. It uses the path finding algorithms are used for finding the shortest path.

The machine learning algorithms are used here. Mostly the predictions are based on the algorithms that are used in the system. This plays a major role in the data predictions. All the algorithms are practically executed.

DATA VISUALIZATION:
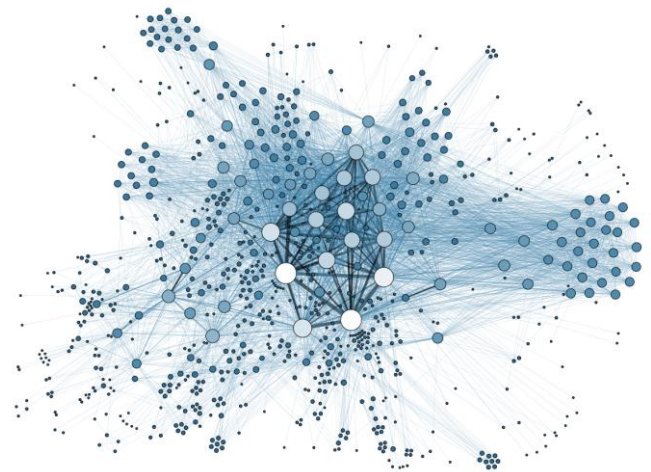
ACKNOWLEDGEMENT

FUTURE SCOPE

The updates in a certain period could help the user to hold the system. Though we have enough network connectivity offline mode can also be used to save data. Trustworthy and surety is the major concern for the user and here we offer those. GPS system has enough accuracy to finding the exact locations, this will useful while finding areas.

Disasters warning / awareness messages distribution by Mobile SMS and by Email. Disasters Record Management including information of losses of life, houses, relief fund

distributed, related document etc. Disaster forecasting on the bases of analysis of previous Disasters records. Online Public complaint registration system and their solution.

The new add on versions will be available to the user in a particular interval of time. Once the user logged in to the web page, he can get all the information and the system also provide feedback for sharing the users review. Offline mode specification will be added to the system which could help the user to view or access the information anywhere at anytime.

CONCLUSION

This project deals with the major technique that a web application could hold. The information can be easily accessed which is provided by the government. This system saves time and resources when compared to the existing system. Updates will be carried out by the admin while cross checking information that is being noticed by mobile app and web app.

REFERENCE

[1] W. .H.M., "The use of earth observing satellites for hazard support," in Geoscience and Remote Sensing Symposium, 2001. IGARSS 01. IEEE 2001 International, Aug. 2002, pp. 135 – 137.

[2] Hussain.M., Arsalan.M.H., Siddiqi.K., Naseem.B., and Rabab.U, "Emerging geo-information technologies (git) for natural disaster management in pakistan: an overview," in Recent Advances in Space Tech-

nologies, 2005. RAST 2005. Proceedings of 2nd International Conference on, Oct. 2005, pp. 487 – 493.

[3] R. .G. and Kumar.A., "A natural disasters management system based on location aware distributed sensor networks," in Mobile Adhoc and Sensor Systems Conference, 2005. IEEE International Conference on, Dec. 2005.

[4] Booth, S.A. (1993), Crisis Management Strategy – Competition and Change in Modern Enterprises, Routledge, London ICPADS 2004.

[5] Lim, C.S. and Mohamed, M.Z. (1999), "Criteria of project success", International Journal of Project Management, Vol. 17 No. 4, pp. 243-8.

[6] Lamp wikipedia entry. [Online]. Available: http://en.wikipedia.org/wiki/LAMP.

[7] Web internationalization wikipedia entry. [Online]. Available: http://en.wikipedia.org/wiki/Internationalization and localization.

[8] Umn/mapserver website. [Online]. Available:

http://mapserver.gis.umn.edu/

[9] Cooke-Davies, T. (2002), "The 'real' success factors on projects", International Journal of Project Management, Vol. 20, pp. 185-90.

[10] Postgresql website. [Online]. Available: http://www.postgresql.org/

[11] F. Naumann and L. Raschid, "Information integration and disaster data management (disdm)," University of Maryland, Tech. Rep., 2006.

[12] Areas in the South of Thailand, Asian Institute of Technology, Bangkok, 19 January, available at: http://tsunami.ait.ac.th/TsunamiAreas.html

[13] Annual Disaster Statistical Review 2010 – The numbers and trends, Centre for Research on the Epidemiology of Disasters (CRED), University catholique de Louvain – Brussels, Belgium.

[14] Disaster Management in India, Ministry of Home Affairs Government of India, GoI-UNDP Disaster Risk Reduction Programme (2009-2012).

[15] Jayaraman, V., Chandrasekhar, M.G. and Rao, U.R. (1997), "Managing the natural disasters from space technology inputs", Acta Astronautica, Vol. 40 Nos 2/8, pp. 291-325.

[16] Pongquan, S. (2005), "Natural resources and community based rehabilitation", paper presented at Seminar on the Presentation of Findings by AIT Team of Experts on Tsunami Affected.