

HEALTH PREDICTION BASED ON GENETICS-HEREDITY USING MACHINE LEARNING

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Abstract : Humans are considered to be the most intelligent species on the mother earth and are inherently more health conscious. Since Centuries mankind has discovered various proven healthcare systems. To automate the process and predict diseases more accurately machine learning methods are gaining popularity in research community. Machine Learning methods facilitate development of the intelligence into a machine, so that it can perform better in the future using the learned experience. Machine learning methods application on health record dataset could provide valuable information and predication of health conditions.

Keywords: Health Records, Health Prediction, Machine Learning, Classification, KNN, Supervised learning, Prediction Model.

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1.INTRODUCTION

Health Prediction based on genetics using Machine Learning is a system which predicts the health based on the information provided by the user. It also predicts the health condition and disease of the patient or the user based on the information or the symptoms he/she enter into the system and provides the accurate results based on that information. This Health Prediction Using Machine Learning is completely done with the help of Machine Learning and Python Programming language for prediction of the health condition. Doctors may sometimes fail to take accurate decisions about when the emergency occurs to a patient, therefore health prediction systems which use machine learning algorithms assist in such cases to get accurate treatment. The project health prediction based on genetics using machine learning is developed to overcome critical health situations in earlier stages. This project "Health Prediction System based on Genetics using Machine learning focuses on Old-age Homes and Living Societies".

In other cases, as we all know in competitive environment of economic development the mankind has involved so much that he/she is not concerned about health according to research there are 40% peoples who ignores about general health issues which leads to critical situations later. The main reason of ignorance is laziness to consult a doctor and time concern the peoples have involved themselves so much that they have no time to take an appointment and consult the doctor which later results into serious cases. According to research there are 70% peoples in India suffers from general health diseases and 25% of peoples face death due to early ignorance.

2.DESIGN

The health prediction based on genetics-heredity using machine learning phone consist of the following modules.

Modules used in this system are:

Registration page: In registration form we have to register the patient by entering some personal details of the patient such as name, Aadhaar number, old age home name, phone number, gender, age and weight. If in case the patient is already registered an alter message displays and he/she can make login through the login form. In register form itself have an option for getting into the login page.

Login page: In order to login, we have to enter patient name and Aadhaar number for login. Login page also contains register option for registering, if in case the patient is not registered. And it also contains get reports option, where we can see patient's past record who has registered and have a diagnosis report in it.

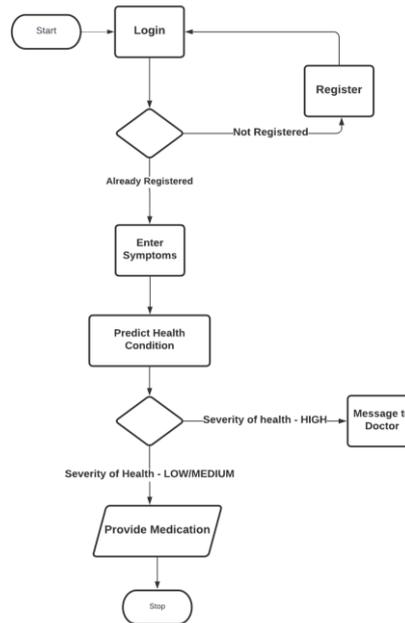
Symptom's page: After getting register and login, it redirects to the symptoms page will be open. In this we have to enter the current symptoms of the patient and click predict option for predicting the data given and to get diagnosis report.

Diagnosis report: In diagnosis report it shows the patient details and disease detected after predicting the data or symptoms which are patient having with the medicine prescription which patient should get in that critical condition. It also shows patient condition in three levels as if: low, medium, high. Low and medium are indication of patient taking the medicine will be okay. High is the indication of patient is in very critical condition where he/she needs (doctors help or) treatment by doctor immediately.

Telegram Message: Here in case of diagnosis report shows that patient condition is high and patient needs doctor's treatment. Here we are using telegram for reporting the alert message to the doctor as patient needs treatment or doctor's help. The alert message contains "emergency occurred 'old age home name' consult. Immediately to doctor 'phone number' through telegram bot.

Reports: Reports contains the patient details who have registered and their previous diagnosis report.

3.FIGURE



4.ANALYSIS

This is the health prediction System which uses hereditary data to predict health condition of a patient over a specified area (Old Age Homes). Previously many systems are proposed for health prediction using, but only using symptoms of the disease patient facing.

5.RESULTS

Health Prediction based on Genetics-Heridity using machine learning takes the symptoms of the patient and predicts his\her health condition based on their hereditary data too. If the severity of the disease is high then message is passed to doctor through telegram as shown below.

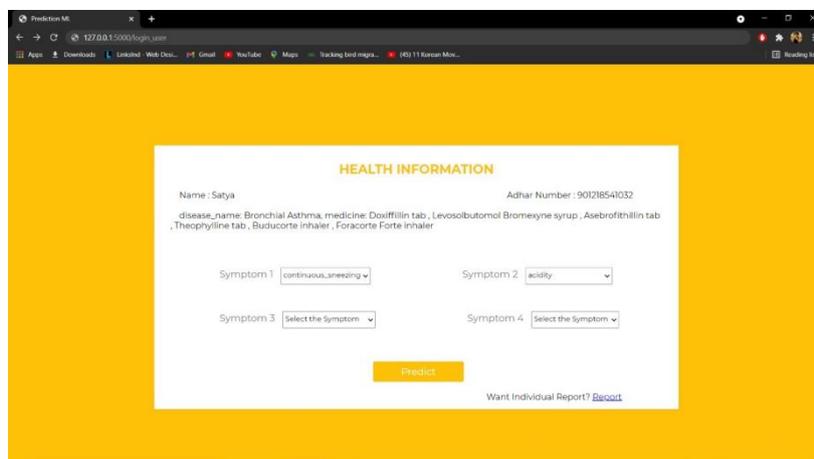


Fig: Health Information page to Select Symptoms

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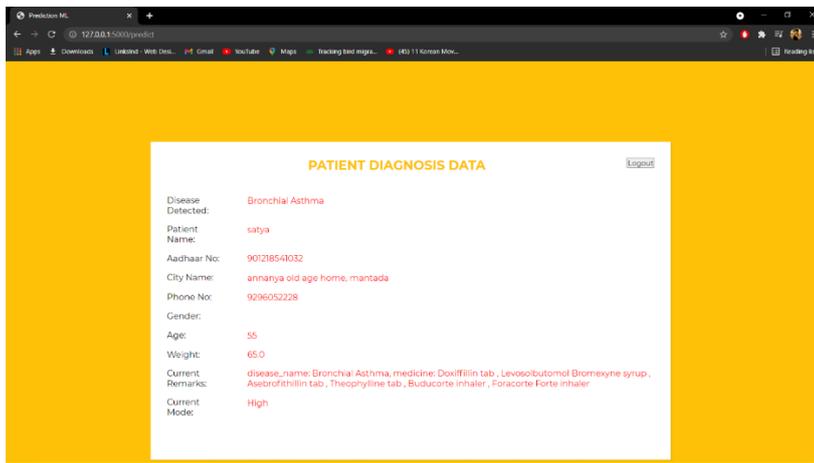


Fig: Diagnosis page with prescription and health mode



Fig: Telegram message to doctor

6. CONCLUSION

So, we conclude by saying that, this project health prediction based on genetics using machine learning is very much useful in everyone's day to day life and it is mainly more important for the healthcare sector, because they are the one that daily uses these systems to predict the health of the patients based on their general information and their symptoms that they are been through.

Now a day's health industry plays major role in curing the diseases or serious situations of the patients so this is also some kind of help for the health industry to tell the user, so just by entering the symptoms and all other useful information the user can get to know the disease he/she is suffering from and the health industry can also get benefit from this system by just asking the symptoms from the user and entering in the system and in just few seconds they can tell the exact and up to some extent the accurate diseases. If health industry adopts this project, then the work of the doctors can be reduced and they can easily predict the health condition of the patient. The health prediction based on genetics is to provide prediction for the various and generally occurring conditions that when unchecked and sometimes ignored can turn into serious conditions and cause a lot of problem to the patient and as well as to their caretaker or families. Finally, this project health prediction based on genetics using machine learning is to increase the survival rate of the people.

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