Medicine Recommend System Using Machine Learning

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Abstract

Most of the people tend to live a long and healthy life, but people are busy in their day-to-day life and it is not possible for everyone to visit doctors for minor symptoms of a disease. Many of people do not know about medicines and to visit a doctor and consult for minor symptoms for medicines it is time consuming process. As AI and machine learning like emerging technology can help us to create a recommend system that will prescribe medicine and this system can predict accurately a medicine to user. In this paper proposes the medicine recommend system which will predict disease and medicine according to symptoms entered by patients/user.

Objective

- This system will predict disease according to the symptoms that are entered by user/patients.
- System prescribes medicine according to the disease.

Acknowledgement and Contact

We take this opportunity to thank all the individuals for their guidance, help and timely support which made us to complete the project in stipulated time.

We are highly indebted to **Dr. Saniya Ansari** our Project Co-ordinator, and Project Guide **Pro. Prajakta Khairnar** and well-wisher for he! valuable guidance, constant encouragement, stimulating discussions and extensive help leading to successful completion of the work. Her attitude at work, approach and versatility and objectivity are worth stating.

We extend thanks to ours. Principal **Dr. F. B. Sayyad** and all other administrative officials of Dr. D.Y. Patil School .of Engineering, for their support. We extend our thanks to all teaching and non-teaching staff in Department of Electronics and Telecommunication and for their constant encouragement throughout this work.

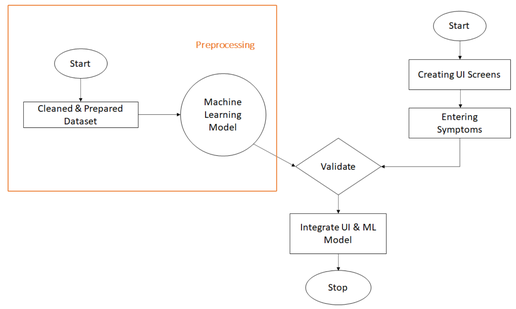
Technology Used and Methodology

Vs code editor
Flask framework
Python Programming Language
MySQL
Machine Learning

Our Medicine Recommend System is implemented using the three data mining algorithms i.e., Decision Tree classifier, Random Forest classifier and Naive Bayes classifier. As the accurate prediction and claiming of a particular disease is very important for the correct treatment of a patient. Therefore, we have used three different ways to obtain more accurate predictions. if all classifiers are predicting the different diseases, then final prediction is considered on the basis of Naïve Bayes classifier. Because, a Naïve based classifier gives more accuracy and also it doesn't have the problem of overfitting.

Algorithm used	Accuracy
Decision Tree	0.9763
Random Forest	0.9763
Naïve Bayes	0.9812

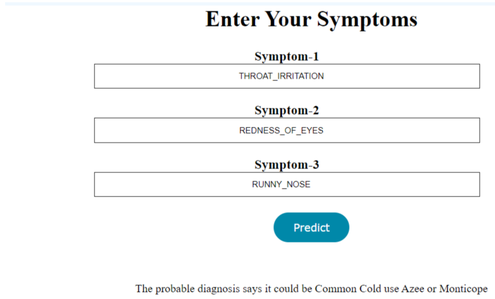
Table of algorithms and accuracy

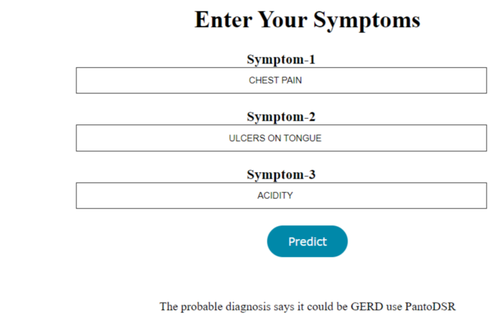


Block Diagram of System

Results

The model trained on 132 symptoms and 42 diseases and its respective medicines. Naive Bayes performs the best and achieves the highest accuracy of 98.12 percent common in the case of Decision Tree and Random Forest classifiers.





Conclusion

In this work a disease prediction and medicine recommendation system has been developed using various machine learning algorithms . Now we set out to create a system which can predict disease and its medicine on the basis of symptoms given to it. On an average we achieved accuracy of ~98%. System has an easy-to-use interface so anyone can use it very easily. It will decrease the workload of doctors.

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