A Diabetic Healthcare Recommendation System

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Abstract

Recently there has been an increase in the number of diabetic patients at an alarming rate. Approximately 18 million people die from cardiovascular diseases every year where diabetes is one of the major factor. Treating diabetes and monitoring it is required to efficiently manage health conditions of diabetic patients. In this paper, an android application has been designed and developed that recommends probable medication, diet and exercise to help people manage their diabetes well. This system analyses the input parameters that are entered by the end user and provides personalized services for users in the form of recommendations for their diet, medicines and exercises. This android-based system can also remind users to carry out the recommendations, which are provided by the system. Other than the functional features, there are also several important non-functional features of the extensibility and the convenience for use. The recommendation is done using User based collaborative filtering, the system asks the user to enter a predetermined set of parameters which are matched with other patients parameters stored in the database, the database consists of past cases of patients who have
been diagnosed with diabetes and treated, this matching is done using Pearson Correlation, the matched patient’s diet, exercise and workout is then recommended to the current user.

References

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Index Terms

Computer Science  Artificial Intelligence

Keywords

User based Collaborative Filtering, Pearson Correlation Score