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Title: The Use of Data Analysis Predicting Disease Development (Health Buddy)

It is often difficult for individuals to adopt proactive approaches to monitoring their health. This is due to a lack of understanding regarding what diseases one is likely to develop in the future. It is difficult for people to predict risks and adjust their focus accordingly in order to take steps to prevent them. This is because disease risk is often multifactorial, with a plethora of aspects contributing to it such as lifestyle, family history, and recent symptoms, along with others. This project tracks and interprets risk factors in the lives of users in order to calculate the likelihood of the development of certain diseases in one's future through the use of data analysis. It seeks to aid individuals in reflecting on their lifestyle to avoid gaining issues later on. This research project is a React application that utilizes a SQL database and complex algorithms to make these disease predictions. The software dynamically updates itself to keep the information up-to-date and relevant to the user. I tested various algorithms regarding the interpretation of data inputted by users and finally settled upon one that uses a weighted approach. In the future, I will implement AI and machine learning models in order to analyze the data in order to give the user more sophisticated and accurate information regarding their condition. I will also work on integrating the software with wearables and health devices to gather more real-time health data.