Minor Project- Report

2021-2022

Course Faculty: **Prof. Chaitra S P**  Course name & code: **19CS6DCMIP & Mini Project**

Semester: **VI** Date: **04/07/2022**

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| TITLE OF THE PROJECT | **Predictive analysis of diabetes in India** | | | |
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| STUDENT NAME | P R Sai Rahul | Jaishree S | Sanjeev F Annigeri | Shreya Sri A N |
| USN | 1DS19CS107 | 1DS19CS134 | 1DS19CS142 | 1DS19CS153 |
| INDIVIDUAL  CONTRIBUTION | * Mobile app UI using flutter and Dart * Flask for backend connection with ML model | * Visualization of the ML input data * Documentation * Flask deployment in python anywhere | * Website creation using HTML,CSS and JS * Deployment of the website in heroku cloud | * ML model creation using python * Integration of website and model |
| GUIDE | Prof. Chaitra S P | | | |
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| PROJECT ABSTRACT: | India is a fast developing economy with a considerable number of diabetes patients. Age, obesity, lack of exercise, high blood pressure, bad diet, hereditary diabetes, etc can cause Diabetes Mellitus. This can lead to high risk of heart diseases, eye problem, nerve damage, kidney diseases, etc.  The practice which is followed currently in hospitals include collecting required information through various tests and providing appropriate treatment based on diagnosis. **Healthcare deals with a lot of data and big data analytics helps in finding the insights and hidden patterns in the data to make meaningful predictions of the outcomes**.  A few external factors responsible for diabetes along with the regular factors include: Glucose, BMI, Age, Insulin, etc. The dataset we will be using for the project is “**pima-indians-diabetes**” .  **A decision tree model** is used to train the dataset and make predictions.  A **full stack platform** is to be developed to collect,edit,visualize the patients data and provide awareness to them using videos and articles. | | | |
| PLATFORM USED  (H/W & S/W TOOLS TO BE USED | **Dataset :** <https://www.kaggle.com/datasets/kumargh/pimaindiansdiabetescsv>  **Platforms used: VS Code,Anaconda Navigator,Python anywhere,HTML,CSS,JS,Flask,MongoDB** | | | |
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| INTRODUCTION | Healthcare deals with a lot of data and big data analytics helps in finding the insights and hidden patterns in the data to make meaningful predictions of the outcomes.  Diabetes is a lifelong condition wherein a person's glucose (sugar) levels in blood become very high. A technique called, Predictive Analysis, incorporates a variety of machine learning algorithms, data mining techniques and statistical methods that uses current and past data to find knowledge and predict future events.  The main types of diabetes include:  ***Type 1 Diabetes***: This condition occurs when the body doesn’t produce enough insulin. It is commonly seen in people at young age due to malfunctioning immune system.  ***Type 2 Diabetes***: This condition occurs when the body is unable to use the insulin produced. It can occur at any age, even children yet commonly seen in middle-aged and older people due to obesity and sedentary lifestyle.  ***Gestational Diabetes***: It is a temporary condition seen in pregnant women.  a | | | |
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| DESIGN |  | | | |
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| PROJECT SOURCE CODE LINK (GITHUB/ GOOGLE DRIVE) | https://github.com/sanjeevfa777/Diabetes-predictor | | | |
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| CONCLUSION /FUTURE ENHANCEMENT | > To include disease prediction ML model(symptoms as input) in the site  >To introduce BLOC architecturing in UI app for fast working. | | | |
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| UI SCREENSHOTS | Screenshot (128)  Screenshot (129)  Screenshot (130)  Screenshot (131)  1  WhatsApp Image 2022-07-03 at 7.46.48 PMWhatsApp Image 2022-07-03 at 7.46.51 PM | | | |