PES UNIVERSITY

Department of Computer Science & Engineering

UE17CS355 – Web Tech II Laboratory

Project Evaluation

Project Title : Medical/Blood Bank Management System

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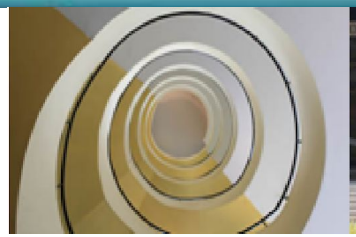




Project Description

This website has been designed to make the management of a blood bank hassle free. Through this portal, users can both donate blood and make requests for required blood donations. Users can keep track of the status of their requests in their profiles. The backend also keeps track of the total quantity of blood of each blood group available in the bank. This table is actively updated as new donations and requests are made. The website also makes use of Machine Learning in the form of Support Vector Machines in order to predict whether or not a donor is likely to donate blood once more. Users can interact with the AI powered chatbot to know about any illness they may have by feeding in their symptoms, which are processed in real time and diagnosed.

Technologies Used

- *Frameworks:*
  FrontEnd - Flask
  Backend- JQuery
- Languages : HTML, CSS, Javascript, Python
- Database: MongoDB
- Technologies used : Ajax, JSON,Firebase,NLTK

Techniques Implemented

Ajax Techniques Implemented:

- Periodic Refresh :The profile page for each user shows his/her requests for donated blood. This page is asynchronously refreshed every 3 seconds to check if the status of any of the requests has been changed from “pending” to “available”.

- Multi Stage Download : Multistage download is implemented as part of testimonials page where the data is fetched in parts from stored text files.

Intelligent Functionality

Machine Learning:

We have implemented a Blood donor predictor using support vector machines to predict if a donor will donate blood based on data collected from donating habits of previous donors.

Artificial Intelligence:

We have implemented an ai powered chatbot using firebase , google api.ai and jquery . The backend uses python and natural language processing to determine symptoms and diagnose the patient with what disease the patient may have.

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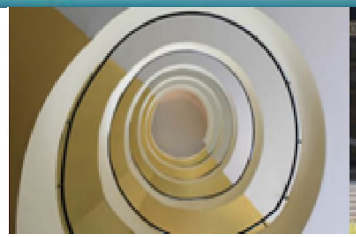

Thank You