Mini Project Proposal (III Semester MCA)

Approval of the mini project proposal is mandatory to continue and submit the project work.

The mini project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken.

The following documents are to be submitted for approval

1. Pro forma for approval of the mini project (Present in this document)
2. Synopsis/Abstract with following contents

i. Title of the Mini Project.
ii. Introduction and Objectives of the Project.
iii. Tools / Platform, Hardware and Software Requirement
iv. Problem Definition and Initial Requirements
v.Basic functionalities of the project

The abstract should be submitted in the format given in the 3rd page of this document.

The Abstract in the given format shall be uploaded on or before **01.12.21**

MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No : _____ *(Filled by the Department)*	Academic Year : 2021-2022 Year of Admission : 2020

Title of the Project : Analyzing Blood Donation probabilities and number of possible donors

1. Name of the Guide : Ms. FEBIN AZIZ
2. Number of the Student: MES20MCA-2049
3. Student Details (in BLOCK LETTERS)

1. Name SIDHARTH K Roll Number 50 Signature

Date: 1/11/2021

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of The Mini Project Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

Analyzing Blood Donation probabilities and number of possible donors

SIDHARTH K

Introduction:

Blood transfusion has critical importance for human survival in risky situations that may occur. The number of possible donors and blood donation probabilities can be determined by using machine learning approaches. When the need for blood occurs in the future, medical professionals can predict potential donors for blood supply. Machine learning algorithms can support the blood transfusion process using datasets. When it comes to human health, data analysis is carried out to help prevent situations that will have critical consequences. By looking at the results of the data analysis, donors who may donate blood can be detected. In order to make this process carried out as expected, accurate and complete access to existing records must be provided. Blood transfusion has been provided for many years. The first successful transfusion was between two dogs in 1665. First medical usage of human blood in a transfusion was occured in 1818. Today, blood donation still has a vital value for saving human life..

Objectives:

- It is aimed to create a data based system to monitor and estimate potential blood donors
- Using datasets it can analyse the last donation performance details of the donor
- Meachine learning methods are used to analyse the number of donors who can donate blood

Problem Definition:

Existing System:

In existing system when someone needs blood they have to contact other hospitals or persons,but there is only a small chance to get donor having same blood.In a risky situation we cannot take so much time for finding a perfect blood donor.

Proposed system

In this project the performances of the two most successful classification algorithms were compared on the blood transfusion data set. By using machine learning models, it is thought to increase the connection between people who need blood and donor. In addition, an estimate was made to see whether the blood donor will donate blood in correct time. By using these findings, it may be beneficial to prevent risky situations. In this way, it may be easier to reach the right blood donor as soon as possible when blood is needed

Basic functionalities:

FUNCTIONAL MODULE

• Naive Bayes Classifier

Naive Bayes is a kind of classifier which uses the Bayes Theorem. It predictsmembership probabilities for each class such as the probability that given record or data point belongs to a particular class. The class with the highest probability is considered as the most likely class

• Machine learning

Machine learning is a method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.

USER MODULES:

- Users
- Blood bank

USERS

- Registration
- Login
- View blood requirements
- Accept blood request
- Donate
- Search blood

BLOOD BANK

- Login
- Add blood requirements
- View request status
- Update donation information
- Probability check

HARDWARE AND SOFTWARE REQUIREMENT

This specifies the hardware and the support software required to carry out the development

Software Requirements

One of the most difficult task is selecting software for the system, once the system requirements is found out then we have to determine whether a particular software package fits for those system requirements. The application requirement:

- OPERATING SYSTEM: WINDOWS 10
- FRONT END: HTML, CSS, JAVASCRIPT
- BACK END: Mysql
- IDE USED: Jetbrains Pycharm, Android studio
- TECHNOLOGY USED: PYTHON JAVA
- FRAME WORK USED: Flask

Hardware Requirements

The selection of hardware is very important in the existence and proper working of any software. Then selection hardware, the size and capacity requirements are also important.

- Processor : Intel Pentium Core i3 and above, 64 bits
- RAM : Min3GB RAM
- HARD DISK: 10 GB