IT 206 Project Report

Team:

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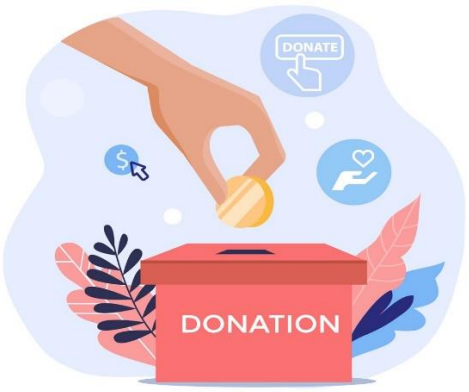
Project Title:

HelpX

Donation Management System



Problem Statement:

- To management Data of Donors and Requiters of Blood and Money (Scholarship).

How We Approach This Problem:

- We use Linked List for solution of this problem.

✦ FIRST IDEA:

- We made class of Donors and Requiters, we made total 18 Linkedlist (8 list for store data of different-different blood Donors and other 8 list for store data of different-different blood's Requiters and 1 list for money donors data and another 1 list for money Requiters).
- So, in this approach we have to make total 18 objects of class so, instead of make this idea final, we decided to think another approach to make This Management System effective.

Ex.

A+ Blood Donors list: (list of all A+ Blood Donors)

Name Mo. No. …….	Name Mo. No. …….	Name Mo. No. …….	….	….	….	….	….	….

This type of list for all Blood Group's Donors and Requiters.

And for money Donors and Requiters.

✦ SECOND IDEA:

- In second approach we decided that we can store data of donors and requiters with only 4 lists…!!
- 1 list for all blood donors , 1 list for all blood requiters, 1 list for money donors and 1 list for money requiters.
- We make this big change with just adding index in list's data.

  (Blood Donors list:)
- If blood donor is for blood group of A+ then we add his/her data with index = 1.
- Like wise we add data using index up to 8.
- This method is same as blood requiters.

Blood Donors List :

Name Mo. No. (A+) Index = 1 …….	Name Mo. No. (B+) Index = 2 …….	Name Mo. No. (AB+) Index = 3 …….	….	….	….

Blood Requiters List :

Name Mo. No. (A+) Index = 1 …….	Name Mo. No. (B+) Index = 2 …….	Name Mo. No. (AB+) Index = 3 …….	….	….	….

Money Donors List :

Name Mo. No. …….	Name Mo. No. …….	Name Mo. No. …….	….	….	….	….	….	….

Money Requiters List :

Name Mo. No. …….	Name Mo. No. …….	Name Mo. No. …….	….	….	….	….	….	….

- If same donor arrives again, first we check data of donors by their mobile no. and if their data exists then we add donation of that donor instead of create new node.

O(1)

- Here, in our code, insertion of new donors/requiters is done in O(1) Time Complexity.

What we have learnt:

- We learnt to use system("CLS") for better appearance of the screen.
- We learnt more about use of object-oriented programming {friend class & inheritance} and Data Structure in real life problems.
- We actually learnt how data structures can be used in our real life scenario.
- By this project , we can relate the real world scenarios and learnt how to approach to the problems .

Limitations of Our project:

- Here, we didn't include **Data base,** so whenever we'll run our code again all the data added before will be no longer exists.
- But this type of approach of console based DBMS is not so useful for the real life problems.