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Report
On
"Donate Blood"

Submitted
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ABSTRACT

This project is a web based application for Blood banks, entirely focused on facilitating the entire citizens. The goal of this project was to build a website that provides people one independent platform where one can track all the blood donors. This project provides complete information including the donor, donation, blood bank, and organizer, programs, pending programs and pending programs as well.

With the practical records filed at the central blood bank, each day hundreds of operations are conducted , in which the requirement of the blood varies from 2pt (for minor operations) to 8 pts (for major operations). The demand of this blood is very high as compared with the number of blood donors. In Nepal, up to date, there are around 50,000 regular donors through out the year and even the blood donors are increasing day by day but this is less as compared the increasing demand of the blood.

This project is done as one effort for helping the people to find the real blood donors so that they could get the blood as soon as possible. Our real target here is to search a suitable donor with the nearest distance. As well as this will help for the donors to track their information regarding number of donations ,the bank, programs, organizers they are associated with . One can have the on line registration for the blood donation at the particular location. One can estimate the blood available at the particular bank.

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Introduction

The importance of blood is what everyone knows. Day by day the rate of accidents and the surgical operations are increasing, which is increasing the demand of blood and thus indirectly increasing the scarcity if blood. As we are familiar with the fact that the available blood groups are of 8 types and its is really hard to find the blood in our urgent necessity. Thus for fulfilling the requirement of the blood requirement people faces lots of mental and physical problems.

This is a web based solution for this purpose. This is exactly not solution but it will surely plays a prominent role to aid in searching the desired blood group. If someone would be in a extensive need of blood then he/she happens to undergo lost of unnecessary problems searching the people of matched blood group as it is not sure that he/she would get the blood at blood bank. For triggering the problem we developed a means through which one can reach up to the required blood donors at any particular time and as well as one donor can see the record of his possible donations.

OBJECTIVES

- Can address the emergency requirement of blood even it is highly rare.
- Provide a web based platform for tracking the blood donors.
- Creates an atmosphere to make blood easily available to all in the country collected from non-remunerated voluntary blood donors.
- Co-ordinate and facilitates the relationships between voluntary blood donors and blood donor organization with Blood Transfusion Service of blood bank thus promoting Blood Program in Nepal.
- Can recruit new donor and create donors of tomorrow through motivational programs in schools, campuses and youth groups.
- To create public awareness and disseminate information on voluntary blood donation and safe blood.

Programming Environment

PHP and MySql were choosing as a programming environment. Our basic requirement was time constraint, thus regarding the time constrains we happened to do our project in PhP which is fine and standard web Based Programming language. For the basic front end we used JavaScript, CSS and HMTL. MySql was chosen as our database which is very feasible as it is free.

PHP is a reflective programming language influenced by C++ and Python programming languages, and was originally designed for producing dynamic web pages. PHP is used mainly in server-side scripting, but can be used from a command line interface or in standalone graphical applications. Textual User Interfaces can also be created using curses. PHP is a recursive acronym for "Pre Hypertext Processor". Originally designed to create dynamic web pages, PHP's principal focus is server-side scripting. php is fully featured, fast, scaleable, easier to read, well supported, robust, free, open source.

MySQL is popular for web applications and acts as the database component of the LAMP, MAMP, and WAMP platforms (Linux/Mac/Windows-Apache-MySQL-PHP/Perl/Python), and for open-source bug tracking tools like Bugzilla. Its popularity for use with web application is closely tied to the popularity of PHP, which is often combined with MySQL. PHP and MySQL are essential components for running popular content management systems such as Word Press and Drupal blogging platforms. Wikipedia runs on MediaWiki software, which can also use PHP and a MySQL database.

METHODOLOGY

.Entities

      Donor: Who Donates Blood

      Donation: Each Packet of Blood

      Program: In which <u>donation</u> is made my <u>donor</u>

      Organizer: Who organizes program

      Blood Bank: Where blood is finally collected by <u>organizer</u> in any <u>program</u>

      Pending Program: Programs yet to be organized by <u>organizer</u>

.Keys

For passing a control over next table we need to implement the concept of keys. Keys allow us to identify a set of attributes that distinguish for each other. We have some categories of keys implemented 1>Super Key,2>Primary Key 3>Foreign Key

.Basic Structure (Schemas)

The basic Schema which we drawn for our project are as follows

      Donor = {

                <u>dr_id</u>, dr_name, dr_phone, dr_email, dr_address

                dr_group, dr_DOB, dr_time, dr_gender

          }

      Donation = {**<u>do_num</u>** , p_id, ,dr_id, do_bankid, do_ amount, do_date }

      Program = {**<u>p_id</u>**, p_name, o_id, p_address, p_date   }

      Pending = {

                pp_num, p_name, o_id, b_id, pr_date,

                 pp_date, target_no, pp_address

                }

      Organizer={**<u>o_id</u>**, o_name, o_phone, o_mobile, o_email   }

Blood Bank={**b_id**, b_name, b_address, b_phone, b_mail}

. Establishing Entity Relation and mapping

We have tried to break down the whole data base structure into a finite , fine and feasible elements i.e. entities , such that they builds a meaningful relation within a single database. In this single database we assumes donation as a preliminary action which is a packet of blood donated by any donor and since one donor can make multiple donations but a single donations cannot be made by the multiple donors thus we established the one to one relations , similar the donation can be made at any program. Now we can again build a relation between the program and the donation. Here it is supposed that, one donation is associated only with one program and many donation can be made in a single program but many programs cannot share same donation thus exists many to one. Similarly the program is organized by any organizer. Here many programs can be organized by one organizer while one program is not supposed to be associated with multiple organizers. Thus exits one to much relation. Similarly there exists the relation between the organizer and blood bank. Additionally each organizer can organize the program but not organized yet, called pending program.

.Implementation Of Shortest Distance Algorithm

For the implementation of shortest distance we used the concept of matrix. For this purpose we define a new table. Since our main shortest distance implementation starts with he district thus firstly we need to have a corresponding table in our database thus firstly we have to create a table with all possible places. Here for all the possible places we place the corresponding X and Y coordinate . Now we calculate all the values for the particular places and then we decide which one is the nearest place. Each place has its fixed id through it tracks the place.

For the better realization of the shortest distance we calculate all the possible values associates with the surrounding of certain location. Let us say some user inserted to search the blood at "Lalitput" and "pulchowk" then firstly it finds the value of is location regarding the valure of x and y and then it compares with the rest if the places with in its

A11	A12	A13	A14	A15	A16	A17	A18	A19
A21	A22	A23	A24	A25	A26	A27	A28	A29
A31	A32	A33	A34	A35	A36	A37	A38	A39
A41	A42	A43	A44	A45	A46	A47	A48	A49
A51	A52	A53	A54	A55	A56	A57	A58	A59
A61	A62	A63	A64	A65	A66	A67	A68	A69
A71	A72	A73	A74	A75	A76	A77	A78	A79
A81	A82	A83	A84	A85	A86	A87	A88	A89
A91	A92	A93	A94	A95	A96	A97	A98	A99

table thus calculates the nearest distance and displays. For the easiness we implemented the concept of equipotent in which the all the place surrounding it is calculated. And the corresponding values is extracted from the table whose information is required.

GridingTechnique
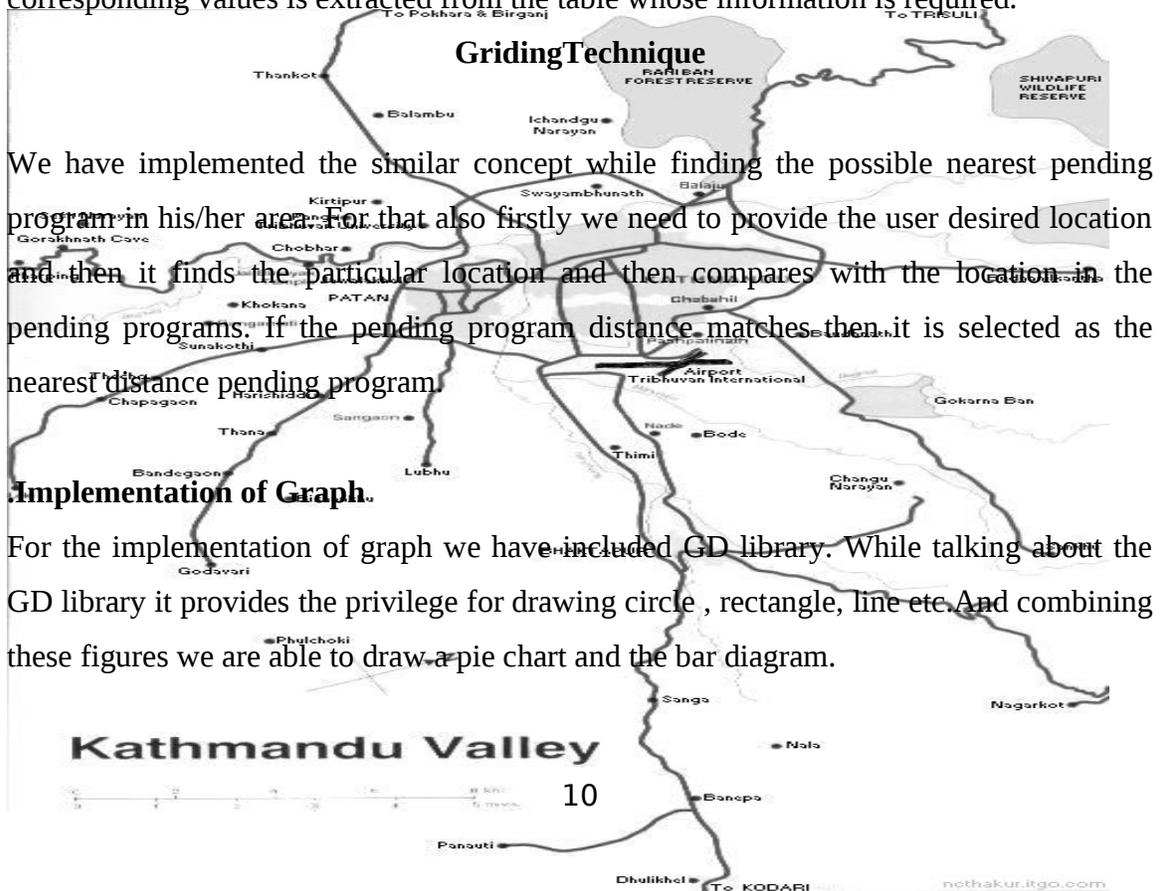
We have implemented the similar concept while finding the possible nearest pending program in his/her area. For that also firstly we need to provide the user desired location and then it finds the particular location and then compares with the location in the pending programs. If the pending program distance matches then it is selected as the nearest distance pending program.

Implementation of Graph

For the implementation of graph we have included GD library. While talking about the GD library it provides the privilege for drawing circle , rectangle, line etc.And combining these figures we are able to draw a pie chart and the bar diagram.

The pie chart is the graphical representation of the fraction in the corresponding degree while the bar diagram is a bar representation. This graphical representation helps for the logical and the easy analysis of the datas.

LIMITAIONS

- We cannot store the internal transactiion of the blood bank.

- We don't have complete analysing system.

- we are limited with in the lalitpur district for the practical implementation

To DOS

- We still have to enlarge the field of searching mchanish

- to implement a intrenal management and transactions of the blood bank and the organizer

- to estimate the extire blood requirement.

- to proveide a logical analysis to decide what is the feasibilityu of launching any program

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