A Community Service Project Report on

BLOOD BANK MANAGEMENT SYSTEM

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CERTIFICATE

This is to certify that the community service project report titled **BLOOD BANK MANAGEMENT SYSTEM** is being submitted by **L.TEJA** bearing **20Q71A4417**, **MD.HASEENA BEGUM** bearing **20Q71A4418**, **M.SARASWATI** bearing **20Q71A4419** in B. Tech, CSE (Data Science) is a record bonafide work carried out by them. The results embodied in this community service project report have not been submitted to any other University.

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ABSTRACT

Blood Bank Management System (BBMS) is a browser based system that is designed to store, process, retrieve and analyze information concerned with the administrative and inventory management within a blood bank. This project aims at maintaining all the information pertaining to blood donors, different blood groups available in each blood bank and help them manage in a better way. Aim is to provide transparency in this field, make the process of obtaining blood from a blood bank hassle free and corruption free and make the system of blood bank management effective. Our client is not interested in blood stocking instead we are stocking blood donors information. The donors who are interested in donating blood has to register in the database. There is no storage of blood so no complications in the project. The software is fully integrated with CRM (customer relationship management) as well as CMS (content management system) solution. It is developed in a manner that is easily manageable, time saving and relieving one from manual works. The requirement of the blood has to be requested and we supply the information of the donor. The donors can update their status whether they are available or not.

1. INTRODUCTION

Blood donation is required during an organ transplant, accidents, cancer treatment etc. For blood donation, one needs to check for a donation camp or needs to visit blood bank. The Manual Blood donation system has many disadvantages which includes, it is too time consuming, often leads to error prone results, consumes lot of manpower, lacks donor information, retrieval of data takes a lot of time, percentage of accuracy is less. In the time of emergency, it becomes difficult to approach the right donor. Rare blood groups are not available all the time at all blood banks and recipients find difficulties to track the right blood donor. There are many blood donation management systems, but these systems only maintain the information of blood banks and donors. This online blood donation management system maintains the list of blood donors and also helps the recipients to track and search the right donor easily. It has two modules namely Admin and User. Admin can add hospitals having blood banks and can also add various blood donation camps.

He/she can also view the list of donors of a particular area with proper Blood cross match. He/she can also check for blood requests and in case of emergency he/she can send notifications to blood donors as per the requirements. Users can register and make a request. Donors can check for Blood camps and hospitals for blood donation.

1.1 Problem Definition:

Entering the details about the blood groups, members, addresses etc. And tracking the database is complicated when the details are maintained manually. This makes the maintenance of schedule erroneous.

Nowadays, people who need blood are increasing day by day. Being popular people are trying to communicate with this blood bank when they need blood in difficulty. But their way of communication is telephonic that's why people can't easily communicate with them. If the blood group isn't available at the blood bank then the manual transmission might prove in vain. There is no information regarding the blood donation or managing programs available on any of the portal. This manually system raises the cost and time required to a considerable extent. Also, people don't have any idea about blood donation how it works.

1.2 Objective of Project:

This is a web application allows you to access the whole information about Blood Bank Management Software, readily scalable and adaptable to meet the complex need of Blood Banks Who are Key Facilitator for the Healthcare Sector, it also supports all the functionalities of Blood Bank. After defining the problems existing the current systems, the objectives of blood bank management system are :

- Provide a report that can be generated of donors, seekers, total consumption of the blood units so that costs, records and counts are maintained precisely.

- To help raise awareness in the community about blood donation and make some blood donation events or campaigns for the public
- To allow the public and organization to make online reservations on the day and session that they want to make blood donation.
- To provide authentic and authorized features to the current system where private and confidential data can only be viewed by authorized users.
- To make a valid informative portal about blood donation & managing systems

1.3 Limitations of Project:

- With the manual system, there are problems in managing the donor records. The records of the donor might not be kept safely and there might be missing of donor's records due to human error or disasters.
- It is not that people don't want to donate blood but their limited knowledge they don't have any idea of blood donation.
- The way of communication is telephonic which is sometimes unreachable & makes it unbearable.
- Being careless the confidential data may be handed on to unauthorized users. * No valid
- information regarding the blood donation or managing programs available on any of the portals

2.COMMUNITY SURVEY

2.1 Survey Details:

2.2 Survey Images:


Blood Bank Management
System

2.3 Survey Report:

Sno.	Names	Address	Problem
1	K.Bala Raju	58-2-9/15,shyamnagar colony,marripalem,vskp	Kidney infection
2	Y.Lakshmi	58-2-9/19,shyamnagar colony,marripalem,vskp	Thyroid operation
3	G.Murali	58-2-9/17,shyamnagar colony,marripalem,vskp	Shortage of blood in blood bank
4	S.Ramiyamma	Rajapulova,bhogapuram,vzm	Death due to shortage of blood in blood banks
5	N.Appana	Amanam village,bheemunipatnam,vskp	Brain stroke
6	P.Bangaraju	Amanam village,bheemunipatnam,vskp	Kidney transplant
7	Bangari	Rajapulova,bhogapuram,vzm	Low heamoglobin
8	P.Prasad	58-2-9/18,shyamnagar colony,marripalem,vskp	Less platelets
9	P.Kusuma	58-2-9/12,shyamnagar colony,marripalem,vskp	Heart transplantation
10	B.Srinu	Amanam village,bheemunipatnam,vskp	No availability of blood in blood banks

3. LITERATURE SURVEY

3.1 Introduction:

System Development The process of constructing structures has always been composite with device becoming large, the costs and complexities get multiplied. So the need for higher techniques for developing structures is extensively diagnosed to be effective and the carried out version should meet a few basic necessities. The model ought to be dependent and cover the entire device development method from feasibility examine to programming, checking out and implementation. The model ought to use traditional strategies and strategies like database designs and established programming techniques. The model have to consist of building blocks, which define tasks, outcomes and interfaces. The version ought to separate the logical gadget from the physical machine. Documentation ought to be an immediate end result of the improvement paintings and must be concise, specific and as non-redundant as possible. Based on the above requirements of the system version, machine examine has been made. Various strategies were applied for device take a look at, development design documents, records modeling, enter screen layout and record layout.

3.1.1 SYSTEM ANALYSIS:

Preliminary Investigation:

First in the device improvement manner is initial Investigation. Preliminary Investigation is carried out in the following phases.

Project clarification is the system of selecting a task request for similarly observe. When a system improvement or amendment request is made, the first structures activity, the initial investigation, begins the hobby has 3 elements: Request rationalization, feasibility observe and project assessment.

Many request from personnel and users in firm aren't definitely stated. Therefore before any systems research may be considered, the task request must be examined to determine preciously what the originator needs. This is known as Request explanation.

As primary outcome of the preliminary research is the determination that the gadget request in viable.

Feasibility Study:

The feasibility take a look at is carried out to determine whether or not the proposed gadget is viable considering the Technical, Operational and Economical factors. After going through feasibility study we are able to have a crystal clean of the system’s benefits and disadvantages.

Technical Feasibility:

The proposed device is advanced the usage of Active Server Page, VB Script and HTML as front-cease tool and Oracle eight because the again end. The proposed device desires a Personal

Web Server to serve the requests submitted by the customers. The Web browser is used to view the net web page that is available within the Windows running device itself. The proposed machine will run below Window9x, NT, and window2000 environment. As Windows is very person friendly and GUI OS it's far very clean to use. All the specified hardware and software are willingly available inside the market. Hence the machine is technically feasible.

Operational Feasibility:

The proposed device is operationally viable because of the following reasons.The customer is exploited extra as maximum of his time is stored. The consumer is 9 serviced at his place of business.The fee of the proposed gadget is nearly negligible whilst as compared to the Profit received.

Economical Feasibility:

As the necessary hardware and software are to be had within the marketplace at a low cost, the preliminary investment is the simplest value suffered and does not need any further improvements. Hence it is economically feasible.The system is feasible in all respects and as a result it invigorate taking over the gadget layout.

Gathering Information:

The evaluation via collection of facts plays the wider function in the analysis of the machine. So the information is amassed at distinctive levels of management to keep music of full information of the machine. The series of information is accomplished from

I. Top Level Management
II. Middle Level Management Low
III. Level Management

Different methods used to collect the data:

Questioners:

The information is amassed through questioners by using filling a set of questions from the one of a kind stages of management. The questions made by questioners are 3 differing types. They are,

- Structured questioners:
- Unstructured questioners:
- Semi-structured questioners:

Interviews:

Interviews had been carried out to gather the information. The interviews were carried out at ranges.

Formal Group Interviews:

The interviews conducted for formal agencies i.E., the hierarchical (legit) businesses within the company.

Informal Group Interviews:

The interviews had been performed for casual corporations i.E., the businesses formed out facet the organization.

Observation:

The information is also gathered by using observation of the firm. The data is collected by way of watching at the web site at exceptional timings and at special conditions like whilst the firm is busy and when the firm hasn't much work to do.

Record Review:

To gather the records and to get a clear idea of the company some of the statistics is likewise amassed from the beyond facts of the company. This data helps a lot to get a clear concept of the firm i.e., the specific issues occurred in distinct seasons and some exception conditions. This very a great deal gives a clean idea of unusual conditions.

3.2 Existing System:

Limitations of the Manual system:

- It is time consuming
- It leads to error prone results
- It consumes lot of manpower to better results
- It lacks of data security
- Retrieval of data takes lot of time
- Percentage of accuracy is less
- Reports take time to produce

3.2.1 Disadvantages of Existing System:

- Manual document and data entry.
- Only web based system is available no mobile based system available.
- Less Security.
- No proper coordination between different Applications and Users.
- Cannot Upload and Download the latest updates at right time.

3.3 Proposed System:

This system is used for maintain whole information about campus. In this project mainly 3 modules are there.

- **Admin**
- **Donors**
- **Acceptors**

Admin : This module focuses on the both donors & acceptors. Each member in a donor & acceptor is given a user id and password, which identifies him uniquely. The member is given a login form. he enters the login details user id and password... The options given to

- Change Password
- Maintain donor details
- Maintain acceptor details
- Update donor details
- Update acceptor details
- Logout

Donor : Each member in a Donor is given a user id and password, which identifies him uniquely. The member is given a login form. he enters the login details user id and password... The options given to a each member in a staff are:

- Change password
- Find a Blood group.
- Why donate blood
- Logout

Acceptor : In this you can store the information about Acceptors.

- Change password
- Find a blood group.
- Who needs blood
- Logout

3.3.1 Advantages of Proposed System:

The main advantage of a blood bank management system is easy and effective information retrieval. Hence, the staff can view precise information quickly. The staff can now store all the details in the blood bank management system. Therefore, they can get rid of the manual procedures.

The main aim of this project is to save the lives of people by providing blood.

Our project Online Blood Bank Management System. So that users can view the information of nearby hospitals, blood banks, and volunteer donors.

This project is developed by four perspectives i.e. hospital, blood bank, volunteer donors and patient.

This application we are developing helps to select the nearby hospitals, blood banks, donors online instantly by tracing its location using GPS.

This application reduces the time to a greater extent that is searching for the required blood through blood banks and hospitals.

Thus this application provides the required information in less time and also helps in quicker decision making.

Solution

A better idea is to use the application which Mobile device is very popular with people too.

This application is providing each entity the facility to approach nearby blood donors so that it will become much easier to search rare blood groups in the hour of need.

Blood Donation is important for people in urgent need of it which can save millions of patients. Hence blood donation management system is very much important. Here we will develop Blood Donation system using Python in easy steps.

Blood Bank Management System Project

To provide a well-organized blood management system to help hospitals find the right blood more quickly and efficiently in the event of an emergency.

Importance Of Blood Bank Management System

This Blood Donation Management System Project In Python plays an important role in collecting blood and monitoring blood stocks, as well as approving blood requests, updating donations, and updating available blood types.

About the Blood Donation Management System:

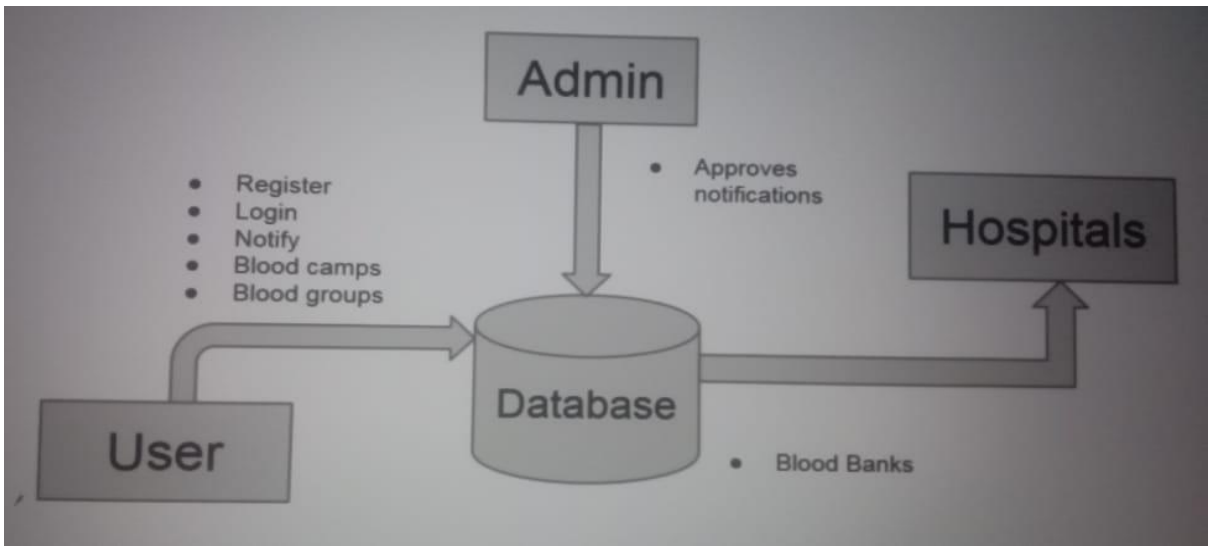
The patients in need of the blood are able to request for the blood. Users can register themselves to become a donor. All users are also able to see all the donors list according to different blood groups as well as the list of all the requested blood by different users or patients. The patients in need of the blood can contact the available donors of the same blood group and city. This will help a lot of people who are in need of blood.

Block Diagram

A block diagram is a diagram of a system in which represented by blocks connected by lines that show the relationships of the blocks. They are heavily used in engineering in hardware design, electronic design, software design,and process flow diagrams

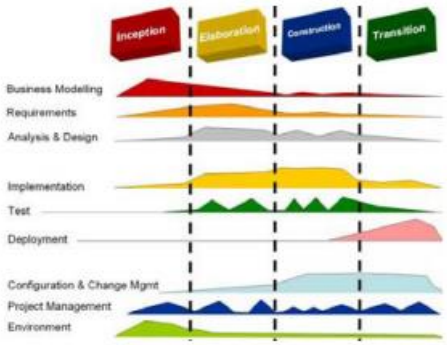
Block diagrams are typically used for higher level, less detailed descriptions that are intended to clarify overall concepts without concern for the details of implementation

Block Diagram



Methodology

Methodology that has been chose to develop BBMS is the Rational Unified process (RUP) from Noushin Ashrafi, & Hessam Ashrafi and Rational Unified Process at www.ibm.com/developerworks/rational/.../1251_bestpractices. By using this methodology, if there is any changes in requirement or misunderstood the requirements given by the Pathology Department (PD) can be implemented in the next iteration of certain phase. Fig. 5 shows the phases of RUP. As we can see here, there are four phases involved in this methodology. They are Inception, Elaboration, Construction, and Transition.



4. SYSTEM ANALYSIS

4.1. Introduction:

Systems Analysis (SA) can be defined as "the multi disciplinary problem-solving activity that analysts have evolved to deal with the problems of sociotechnical systems". Some common examples of such systems are the energy system, the transportation system, the health care system, and many others in modern society. A common feature among these systems is that they are complex: they generally involve several subsystems whose internal operations and external relations with the other components of the system are complex, and, maybe, not perfectly known or understood. Also, they always involve people-participants of the system, whose behavior and interests are being affected by the structure and operation of the system, as well as people-decision makers for the system, who generally try to satisfy objectives of efficiency while observing constraints imposed by social, political, legal, or other considerations. Finally, the analysis of these systems generally calls for the cooperative use of several scientific fields, and, therefore, requires the coordination of a multidisciplinary team.

Because of the complexity and multidisciplinary nature of these problems, the success of a SA project depends not only on the analytical modeling of the problem, but, perhaps even more so, on the art of combining the knowledge and methods of several disciplines of modern science and technology with concepts of social goals and equities, elements of judgment and taste, and appropriate consideration of the larger contexts and uncertainties that inevitably attend such problems. It is these features that make SA more of a "craft" than a traditional scientific discipline.

The central purpose of SA is to help public and private decision makers solve the problems and resolve the policy issues they face. The distinguishing characteristic of the approach is that, in addressing a problem, it first identifies a system (or systems) within which it must be considered, and then comprehensively analyzes alternative courses of action by evaluating their costs, benefits or other consequences in light of overall system objectives and constraints. In more detail, the stages of an SA project can be considered to be the following :

1. Problem identification and formulation in a systems framework.
2. Definition of objectives and their translation criteria. into evaluation
3. Formulation of alternative courses of action for achieving these objectives.
4. Estimation of the impacts of the various possible actions.
5. Comparison of alternatives by applying various criteria to their consequences.
6. Presentation of the results to the decision maker in a framework suitable for choice.

In addition, the project could involve implementation, in which case the following three stages should be included:

7. Selection of an alternative.
8. Implementation of the selected course of action.

4.2. Software and Hardware Requirement Specification:

Software:

Software is a set of instructions, data or programs used to operate computers and execute specific tasks. It is the opposite of hardware, which describes the physical aspects of a computer. Software is a generic term used to refer to applications, scripts and programs that run on a device.

Hardware:

Computer hardware includes the physical parts of a computer, such as the case, central processing unit, random access memory, monitor, mouse, keyboard, computer data storage, graphics card, sound card, speakers and motherboard.

Python version 3.8

Python 3.8 introduces some new syntax to the language, as well as a few small modifications to existing behavior and, most importantly, a slew of performance improvements, following in the footsteps of the previous 3.7 version.

4.2.1. Software Requirements:

- Windows 7 or higher
- Python
- Django framework
- SQLite3 database
- PyCharm
- Visual studio code

4.2.2. Hardware Components

- Processor -Core i3
- Hard Disk - 160 GB
- Memory - 1GB RAM

Technologies Used In This Projects

- Python
- Django framework
- HTML
- CSS
- BootStrap
- Sqlite3

This Blood Bank Management website is a simple project developed using Using Django Framework, HTML and CSS. This project also has functionalities of registering blood donors and through which people needing blood can search and contact them after donors are registered.

This website also provides features of admin panel through which admin can contact all donors list, all the blood banks that are required during donations. It also has contact page where all the contact details are available whenever there is blood emergency people can contact to admin.

SYSTEM REQUIREMENTS

Software Environment: Software Environment is a technical specification of requirement of software product. This specifies the surroundings for development, operation and protection of the product.

Technology used:

HTTP

HTTP Basics

MYSQL

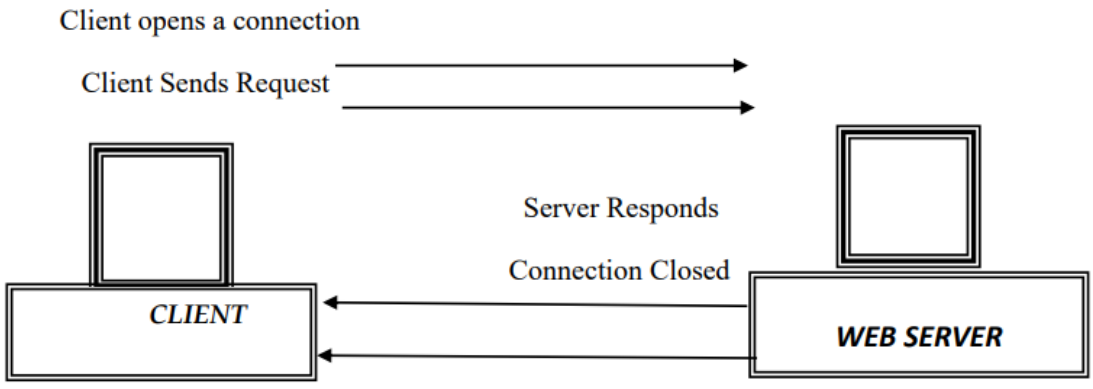
SQL

HTML

JSP

HTTP: The Hypertext Transfer Protocol is stateless, TCP/IP primarily based protocol used for speaking at the World Wide Web. HTTP defines the appropriate manner wherein Web customers communicate with Web servers. HTTP/1.Zero is the most not unusual version in use today. Oddly sufficient, this protocol isn't always officially diagnosed as an Internet general. It is documented in the informational RFC 1945. Its successor, HTTP/1.1, is presently a proposed Internet fashionable and many browsers and servers now aid this new edition.

HTTP Basics: The HTTP protocol follows a totally easy request/reaction paradigm. In brief, a communication between a Web browser and Web server is going something like this: the patron opens a connection to the server, the patron makes a request to the server, the server responds to the request, and the relationship is closed. The 4 ranges of a easy Web transaction: The consumer opens a connection to the server. The client makes a request to the server. The server responds to the request. The connection is closed.



Connection-less Protocol:

HTTP is a connection-less protocol. As you may have guessed, the distinction between a connection-less and a connection-orientated protocol is inside the manner they cope with

connections. Using a connection-less protocol, the patron opens a connection with the server, sends a request, receives a reaction, and closes the relationship. Each request requires its personal connection. With a connection-oriented protocol, the client connects to the server, sends a request, receives response, and then holds the relationship open a good way to service future requests.

The connection-much less nature of HTTP is both energy and a weak point. Because it holds a connection open simplest lengthy enough to service the request, only a few server sources are required to service large numbers of customers. In reality many popular Web web sites carrier tens of millions of users in a single day. The downside to a connection-much less protocol is that a connection have to be established with each request. Opening a brand new reference to each request incurs a performance penalty that translates into additional delays for the consumer.

Alternatively, a connection-much less protocol together with FTP has a strong overall performance use over a connection-much less protocol. This is because of the truth that the overhead required to open a new connection is incurred handiest once in place of with every request. Unfortunately, each open connection consumes some amount of server assets. These finite assets, consisting of reminiscence and disk space, limit the number of concurrent users the server can handle. In contrast to a Web site, an FTP site can not often support various hundred users at a time.

Stateless Protocol:

As said within the definition, HTTP is a stateless protocol. A protocol is stated to be stateless if it has no reminiscence of earlier connections and can not distinguish one purchaser's request from that of some other. In assessment, FTP is a nation-complete protocol, because the connection isn't always opened and closed with each request. After the initial login, the FTP server keeps the user's credentials at some point of the consultation. On the other hand, due to its stateless nature, there's no inherent technique in HTTP for monitoring a client's traversal of a Web web site. Every connection is a brand new request from an nameless consumer.

The stateless nature of HTTP is each power and a weakness. It is power in that its stateless nature continues the protocol easy and easy. It also consumes fewer sources at the server and may aid more simultaneous users considering the fact that there are not any consumer credentials and connections to maintain. The drawback is within the overhead required to create a brand new reference to every request and the lack of ability to music a single consumer as he traverses a Web website.

MYSQL:

Its is a Oracle running surroundings that packs the strength of a mainframe Relational Database Management machine into consumer microcomputer. It provides a fixed of purposeful programs that consumer can use as equipment to build structures and perform tasks, have become applications evolved in oracle are absolutely transportable to different versions of the programmer who can create a complex software in a single consumer environment after which flow it to a multi-consumer platform. User do no longer need to be an expert to understand oracle but the higher person understands the program, the productively and creatively can use the tools it presents. Support for CODD Rules: Oracle supports the following rules of Dr.E.F.CODD:

Rule1: Information Rule	YES
Rule2:Guaranteed Access	YES
Rule3:Systematic Representation of missing information	YES
Rule4:Comprehensive Online Catalogue	YES

Rule5:Comprehensive Data Sub-Language	YES
Rule6:View Updating Partially	YES
Rule7:High level Insert,Update,Delete Partially	YES
Rule8:Physical Data Independence	Partially
Rule9:Logical Data Independence	Partially
Rule10:Integrity Independence	Partially
Rule11:Distribution Dependence	YES
Rule12:Non Subversion	YES

Features of Oracle:

1. Oracle is portable:

The oracle related database management system is to be had on huge range of platforms ranging from structures to remarkable computer systems and as a community loadable module for Secure login. If you run the identical application on one machine you could run the identical utility on other structures without any changes.

2. Oracle is Compatible: The Oracle command may be used for COM indicating with IBM, DB/2, Mainframe related database management system, which is different from Oracle, i.e., Oracle is compatible with DB/2. Oracle related database management system is a high performances fault tolerant DBMS, which is especially designed for on line transaction processing and for managing the huge database programs.

3. Oracle RDBMS is available with two options: Oracle related database control machine version eight with transaction processing option and oracle related database management gadget model eight with out transaction processing alternative. Oracle with transaction processing alternative offers three features, which contributes to a totally excessive level of transaction processing in the course of.

SQL: The call SQL stands for Structural Query Language. SQL is a information access language, like some other language, it's far used for communique. SQL communicates with database supervisor. The database manager will be Oracle, inf or blend, data base-2 and SQL database. SQL is straightforward to examine. Despite the reality that SQL is a laptop programming language, it is much less complicated than traditional programming language like COBOL, BASIC, FORTRAN or API. This is due to the fact that SQL is a non-procedural language.

SQL is one of the Oracle centers. It is essential to apprehend in each case its differences, cause and region inside the Oracle circle of relatives.

SQL is the language used to get entry to a relational database, which includes Oracle.

SQL May be used with each of the Oracle gear, where get right of entry to to the database is required.

Overview of SQL:

A database management system requires a question language to allow customers to get admission to information. Structured Query Language (SQL – pronounced ‘sequel’) is the language utilized by maximum relational database systems. BM advanced the SQL language in a prototype relational database management machine –System R – within the mid-Nineteen Seventies. In 1979, Oracle Corporation introduced the first commercially available implementation of SQL.

Features of SQL:

SQL is an English-like language. It makes use of phrases which include select, insert, delete as part of its command set. SQL is a non-procedural language: you specify what facts you require, no longer a way to get it. In different phrases, SQL does now not require you to specify the get admission to technique to the statistics. All SQL statements use the query

optimizer – a part of the related database system – to decide the quickest manner of retrieving the specified information. This function makes it easier in order to give attention to acquiring the preferred result.

SQL strategies sets of statistics in place of a single document at a time. The maximum commonplace shape of a hard and fast of records is a table.

A variety of consumer which includes Data base administrator, software programmers, management employees, and many other types of cease users can use SQL.

SQL gives commands for an expansion of duties including:

Querying information

Inserting, updating and deleting rows in a desk

Creating, enhancing and deleting database gadgets

Controlling get entry to to the database and database items

Guaranteeing database consistency.

SQL Processing Capabilities:

SQL is composed of a definition language a Data Manipulation Language and a Data Control Language.

These 3 languages assist the entire spectrum of Relational Data processing pastime. In fact most SQL based totally product all get admission to to the facts thru SQL.

1. Data Definition Language: Its lets in creation, Deletion and Modification of records structure for bar device. These structures encompass tables, databases and indexes.Ex: Create, Drop and Alter.

2. Data Manipulation Language: These commands are used to control the records in tables immediately or thru perspectives. There are 4 popular Data manipulation language statements. They are select, delete, insert and update.

3. Data control language: These commands are used to govern usage and get admission to of statistics. The maximum usually discovered one's will consist of furnish, revoke. Why to Use? Oracle greatly supports Related management system features. Also it supports high safety to the statistics and quicker getting access to capability. It can be run on a diffusion of systems and running structures. One can develop an software without problems by means of providing person-friendly environment.

The features of oracle are portability and compatibility.

HTML: The extended reach of data and offerings to clients that the Internet has enabled, has created a new mission for the developer. The developer need to expand a person interface that is divisible, available on a couple of structures and supports a extensive range of purchaser environments from miniature WIFI gadgets to excessive-end workstations. So

to preserve a vast attain to customer environments and to acquire finest compatibility with all browsers, this gadget makes use of well known HTML.

Hyper Text Markup Language is the standard language for creating documents for the World Wide Web. An HTML report is a text report, which includes the factors, in the shape of tags that an internet browser uses to display text, multimedia items, and hyperlinks the usage of HTML; we will layout a record for show and add links to other documents.

The consumer interface has been designed in HTML subsequently may be browsed in any internet browser.

Cascading Style Sheets:

These were used to split information shape presentation. By the use of those style sheets throughout the task, a uniform appearance and sense may be maintained for all of the HTML elements and tags which have been used within the task. If there may be any revamp the manner the content has been presented in the internet site, the changes may be appropriate fashion sheet, with a view to be meditated across all the fashion sheets.

WORKING ENVIRONMENT

Hardware Configuration:

Processor : P III 700 MHz.

RAM : 64 MB RAM

Hard Disk Drive : 20 GB HDD

Keyboard : 104 keys

Mouse : HP Mouse

Monitor : 15” digital color monitor

Display Type : VGA

Software Configuration:

Operating System :Windows 98

Web server :Glass-fish

Web Browser :Internet Explorer5.0

Designing Tool : NETBEANS 7.4, HTML

Client Side Scripting : JSP Scripts

Back-End : MYSQL

Software Requirement Specification

Functional Requirement

- User registration(User/Organizer)
- User login/logout/update Profile
- Request for Blood ϖ Add News
- Contact Details ϖ Refer a friend
- Search for event

a) By Distance

b) By District or City

c) By Date or Time

d) By House number or Phone number

Non Functional Requirement

- Security
- Availability
- Performance
- User Satisfaction
- Backup

About Project	Project Details	Definition
Project Name	**Blood Bank Management System Project in Django**	The **Blood Bank Management System Project in Django** is created using Python Django Framework. The system is built fully in Django Framework in back-end and HTML, CSS and JavaScript in front-end. Basically, the project includes tutorials and guides for creating a code.
Python version (Recommended)	3.8 Version	Python 3.8 introduces some new syntax to the language, as well as a few small modifications to existing behavior and, most importantly, a slew of performance improvements, following in the footsteps of the previous 3.7 version.
Programming Language Used	Python Django Language	Django is a high-level Python web framework for building safe and maintainable websites quickly. Django is a web framework built by experienced developers that takes care of a lot of the heavy lifting so you can focus on developing your app instead of reinventing the wheel.
Developer Name	itsourcecode.com	Free projects containing source code in Java, PHP, Python, Django, VB.Net, Visual Basic, C, C++, C#, Javascript, and other languages are available on this website.
IDE Tool (Recommended)	Sublime, Visual Studio, PyCharm	Sublime Text is a source code editor that is available for purchase. It comes with built-in support for a variety of programming and markup languages. Plugins, which are often community-built and maintained under free-software licenses, allow users to extend the functionality of the system. Sublime Text has a Python API to help with plugins.
Project Type	Web Application	A web application, unlike computer-based software programs that operate locally on the device's operating system, is application software that runs on a web server. The user uses a web browser with an active network connection to access web apps.
Database	SQLite	SQLite is a programming language that is used to create embedded software for devices such as televisions, cell phones, and cameras. It can handle HTTP requests with low to medium traffic. SQLite has the ability to compress files into smaller bundles with less metadata. SQLite is a temporary dataset that is used within an application to process data.

5. SYSTEM DESIGN

Introduction to System Design:

The identified entity or the characteristic may be entered within the code; conversely there are numerous System design is the manner of planning a brand new machine or to replace the present device. Simply, device layout is just like the blueprint for building, it specifies all the capabilities which can be to be within the completed product.

System design segment follows device analysis section. Design is involved with figuring out functions, statistics streams among the ones functions, keeping a file of the layout choices and providing a blueprint the implementation phase.Design is the bridge between system analysis and system implementation. Some of the essential fundamental concepts involved in the design of application software are:

- Abstraction
- Standard
- Verification

Abstraction is used to construct answers to hassle without having to take account of the tricky info of the diverse thing sub troubles. Abstraction lets in machine clothier to make step-wise purification, which at each level of the design may also hide, useless details associated with representation or implementation from the surrounding.

Standard is involved with decomposing of principal module into properly-described attainable units with well-defined interfaces the various gadgets. This enhances layout clarity, which in turn eases implementation, Debugging, Testing, Documenting and Maintenance of the software product. Standard regarded on this feel is a important tool in the production of big software program tasks.

Verification is fundamental concept in software layout. A design is verifiable if it could be confirmed that the design will bring about implementation that satisfies the consumer's necessities. Verification is of two kinds specifically.

Verification that the software necessities evaluation satisfies the purchaser's desires. Verification that the layout satisfies the requirement analysis.

Some of the vital factors of quality that are to be taken into consideration within the design of software software program are:

Reliability:

The software program must behave strictly in line with the unique specification and ought to characteristic easily under everyday conditions. Docility: The software program need to be able to adapting without difficulty to modifications in the specification.

Recyclable:

The software program ought to be evolved using a modular technique, which permits modules to be reused by way of other utility, if viable.

The System Design briefly describes the idea of gadget design and it contains four sections. The first segment briefly describes the capabilities that the device goes to provide to the consumer and the outputs that the proposed device is going to provide.

The second phase namely Logical Design describes the Data Flow Diagrams, which show clearly the information actions, the procedures and the statistics sources, and sinks, E-R diagrams which constitute the general logical design of the database, and high-degree method structure of the device.

The procedure of layout includes “conceiving and making plans out in the mind” and making a drawing pattern, or comic strip of the device. In software program design there are two styles of essential sports, Conceptual Design and Detailed Design.

Conceptual or logical or outside layout of software program involves conceiving, making plans out, and specifying the externally observable characteristics of a software product. These characteristics encompass person presentations, outside data assets, practical traits and high-degree method structure for the product.

Details or inner layout entails conceiving, making plans out, and specifying the inner shape and processing info of the software program product. The purpose of internal layout is to specify internal shape, processing details, blueprint of implementation, checking out, and maintenance sports.

One of the critical fundamental standards of software design is general. A standard device is composed interfaces a few of the units. Well known complements layout readability, which in turn eases implementation, debugging, checking out, documentation, and maintenance of the software product.

The different fundamental standards of software design encompass abstraction, structure, facts hiding, concurrency and verification. The use of structuring lets in decomposition of a big device into smaller, extra potential gadgets with nicely-described relationships to the alternative gadgets. The device design is verifiable if it may be tested that the design will result in an implementation that satisfies the purchaser’s requirements.

Preliminary Design:

Preliminary design is basically involved with deriving an average picture of the device. Deriving whole system into modules and sub-modules at the same time as preserving Cohesion and Coupling factors in thoughts. Tools, which help in initial layout procedure, are Data Flow Diagrams.

Code design:

The motive of code is to facilitate the identification and retrieval for gadgets of statistics. A code is an ordered collection of symbols designed to provide specific identification of an entity or characteristic. To obtain particular identification there should be best one place wherein t be an area within the code for each aspect this is to be recognized. This jointly one of a kind characteristic need to be built into any coding machine.

The codes for this gadget are designed with two features in thoughts. Optimum human orientated use and system efficiency. Length of the code range from length of 1 to period of 5 characteristics:

The code shape is precise; making sure that handiest one fee of the code with a single that means may be correctly applied to a given entity or attributes.

The code shape is expansible taking into account boom of its set of entities and attributes.

The code is concise and brief for recording, verbal exchange, transmission and storage policies. They have a uniform size and format.

The codes are simple so that the consumer can effortlessly apprehend it.

The codes also are versatile i.E., it is easy to alter to mirror vital changers in condition, chart scrappy and relationships of the encode entities.

The codes also are effortlessly garage for producing reviews in a predetermined order of layout.

The codes are also stable and do not require being often up to date thereby selling consumer efficiency.

The codes are also meaningful.

They are also operable i.E., they're good enough for gift and anticipate records processing both for gadget and human use.

Input Design:

Input layout is part of normal system design, which requires very careful attention. The essential targets of input design are:

To produce a value-powerful method of input.

To gain the highest feasible level of accuracy.

To make certain that the input is acceptable to and understood by using the consumer staff.

In this gadget input monitors are designed very cautiously so that no faulty statistics will input the database. The facts is made as clean as possible. For simplifying the records access many facilities are given.

Each and every display in this gadget is facilitated by many controls so that the user can without problems work with this device.

Output Design:

Outputs from systems are required normally to communicate the outcomes of processing to users. They are also to provide a permanent tough copy of those results for later session.

The various kinds of outputs are required through this device are given below:

External outputs, whose vacation spot is out of doors the concern and which require powerful attention because they, assignment the photograph of the concern.

Internal outputs, whose vacation spot is in the subject and which require careful design due to the fact they may be the consumer’s most important interface within the system.

Operation outputs, whose use is only inside the computer branch, E.G., application listings, utilization statistics and many others, Interactive outputs, which includes the user in speaking directly with the computers.

5.1. MODULES :

This online blood donation management system maintains the list of blood donors and also helps the recipients to track and search the right donor easily. It has two modules namely Admin and User.

- Homepage
- Search
- Donor Registration
- Contact Us
- About Us

5.1 .1 Homepage – For the homepage, you will be able to all the basic access in the whole system. Such as home, search, donor registration, login, contact us and about us.

5.1.2 Search – For the search, you will be able to search the blood type you want and the address of a donor person.

5.1.3 Donor Registration – For the donor registration, you will fill the forms. Such as your complete name, gender, date of birth, blood type, phone number, email address, home address and etc.

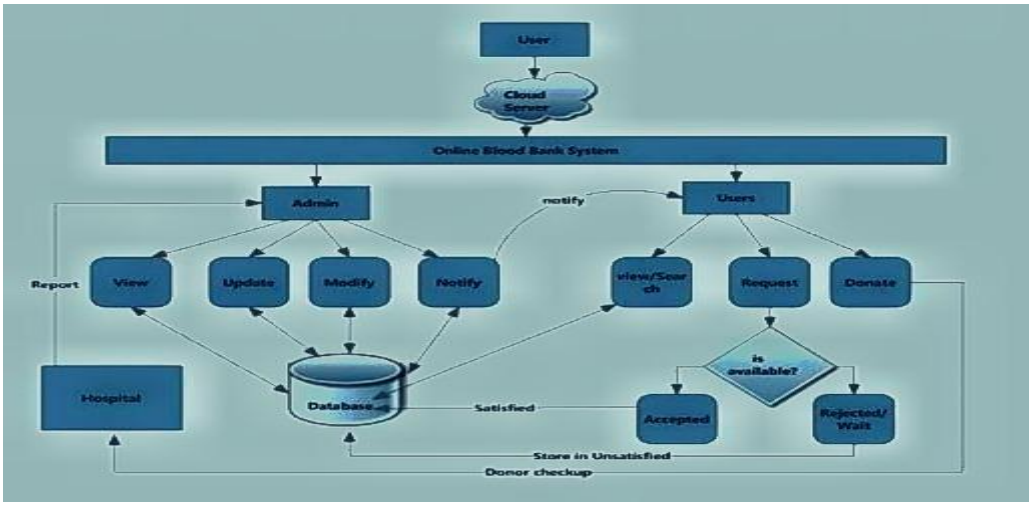
5.1.4 Contact Us – For the contact us, you will be able to see their address, phone number and email address.

5.1.5 About Us – For the about us, you will be able see the goals and objectives of blood bank management system.

This project aims at maintaining all information regarding blood donors, different blood groups available in blood banks as wells as blood camps and help them manage in a better way.

5.2 SYSTEM ARCHITECTURE:

A system architecture or systems architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and System architecture can comprise system components, the externally visible properties of those components, the relationships (e.g. the behaviour) between them. It can provide a plan from which products can be procured, and systems developed, that will work together to implement the overall system.



SYSTEM ARCHITECHTURE OF BLOOD BANK MANAGEMENT SYSTEM

DATA FLOW DIAGRAM

A data flow diagram is a graphical representation that depicts information flow and the transforms that are applied as data move from input to output. The basic form of a data flow diagram, also known as a data flow graph or a bubble chart. The data flow diagram may be used to represent a systemor software at any level of abstraction. In fact, DFDs may be partitioned into levels that represent increasing information flow and functional detail. Therefore, the DFD provides a mechanism for functional modelling as well as information flow modelling.

A context diagram is a top level (also known as Level 0) data flow diagram. It only contains one process node (process 0) that generalizes the function of the entire system in relationship to external entities. The first level DFD shows the main processes within the system

Data Flow Diagram Notations

You can use two different types of notations on your data flow diagrams:

1). Process Notations

Process: A process transforms incoming data flow into outgoing data flow.

2). Data store Notations

Data Store: Data stores are repositories of data in the system. They are sometimes also referred to as files.

3). Dataflow Notations

Dataflow: Dataflow are pipelines through which packets of information flow. Label the arrows with the name of the data that moves through it.

4). External Entity: External entities are objects outside the system, with which the system communicates. External entities are sources and destinations of the system's inputs and outputs.

Blood Bank Management System DFD Levels 0, 1 and 2

Blood Bank Management System DFD Level 0

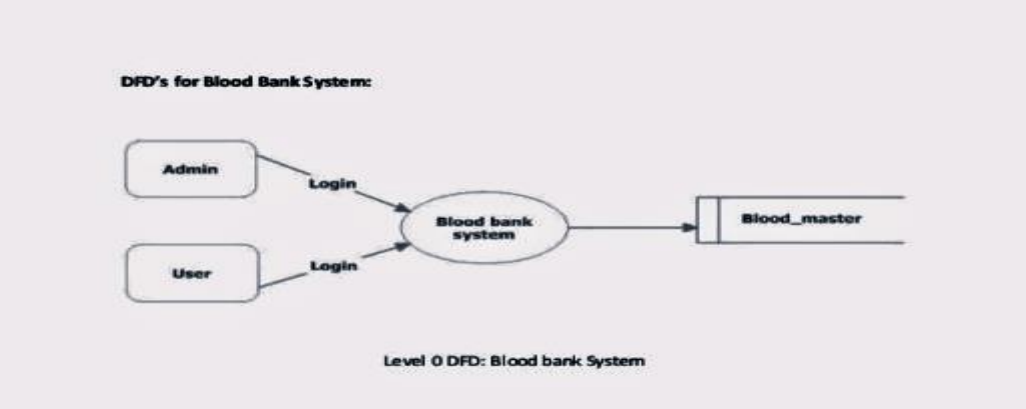
To start with, let us familiarize what is Blood Bank Management System DFD level 0.

The Blood Bank Management System DFD level is also known as contest diagram. It's supposed to be an abstract view, with the mechanism represented as a single process with external parties

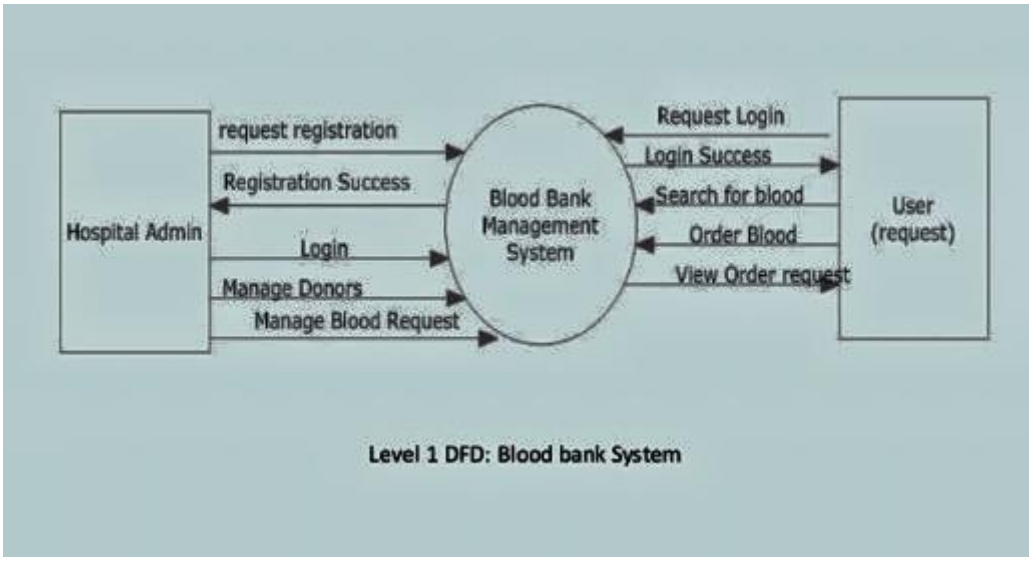
This DFD for the Blood Bank Management System depicts the overall structure as a single bubble,

It comes with incoming/outgoing indicators showing input and output data.

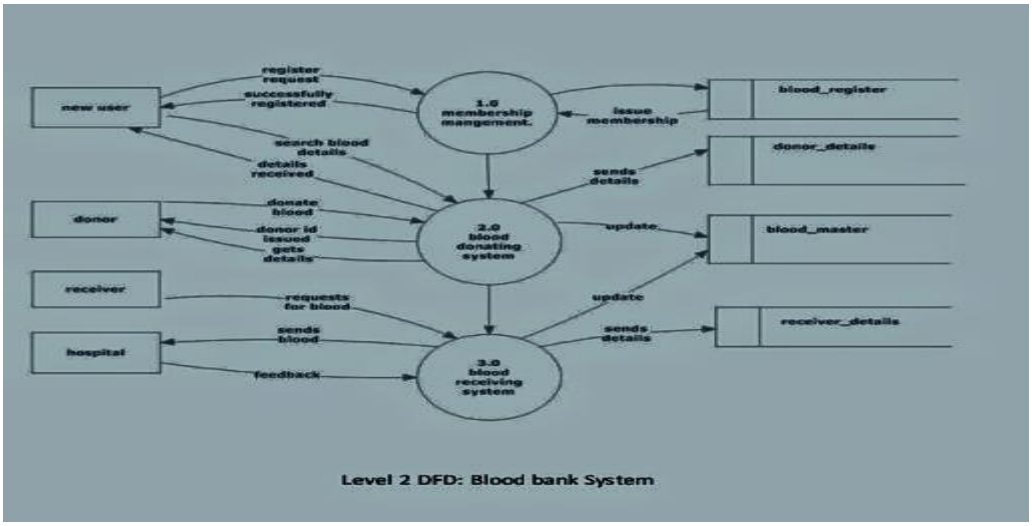
BLOOD BANK MANAGEMENT SYSTEM



DATA FLOW DIAGRAM LEVEL O



DATA FLOW DIAGRAM LEVEL 1



Level 2 DFD: Blood bank System

TABLE STRUCTURES:

In computer programming, a table is a data structure used to organize information, just as it is on paper. There are many different types of computer-related tables, which work in a number of different ways. The following are examples of the more common types.

1) In data processing, a table (also called an array) is a organized grouping of fields.

Tables may store relatively permanent data, or may be frequently updated.

2) In a relational database, a table (sometimes called a file) organizes the information about a single topic into rows and columns.

3) A decision table (often called a truth table), which can be computer-based or simply drawn up on paper, contains a list of decisions and the criteria on which they are based All possible situations for decisions should be listed, and the action to take in each situation should be specified.

4) An HTML table is used to organize Web page elements spatially or to create structure for data that is best displayed in tabular form, such as lists or specifications.

TABLE STRUCTURE FOR ADMIN LOGIN

Table structure for admin login

name	Type	Allow Null
Hospital_id	VARCHAR	No
password	VARCHAR	No

Table structure for User login

name	Type	Allow Null
User_id	VARCHAR	No
password	VARCHAR	No

Table 1:Donor_deatils

name	Type	Allow Null
id	INT(10)	No
Name	VARCHAR	No
location	VARCHAR	No
Contact no	INT(10)	No
Age	INT(2)	No
Location	VARCHAR	Yes

Table 2:requester

name	Type	Allow Null
id	INT(10)	No
name	VARCHAR	NO
Age	INT(2)	Yes
location	VARCHAR	NO
Blood type	VARCHAR	NO

Table 3:Blood_inventory

name	Type	Allow Null
id	INT(10)	No
Qty	INT(10)	No
location	VARCHAR	yes
Blood type	VARCHAR	No

Table 4:donate_blood

name	Type	Allow Null
id	INT(10)	No
name	VARCHAR	Yes
location	VARCHAR	No
Blood type	VARCHAR	No
Contact NO	INT(10)	No
sugar	VARCHAR	No
address	VARCHAR	Yes

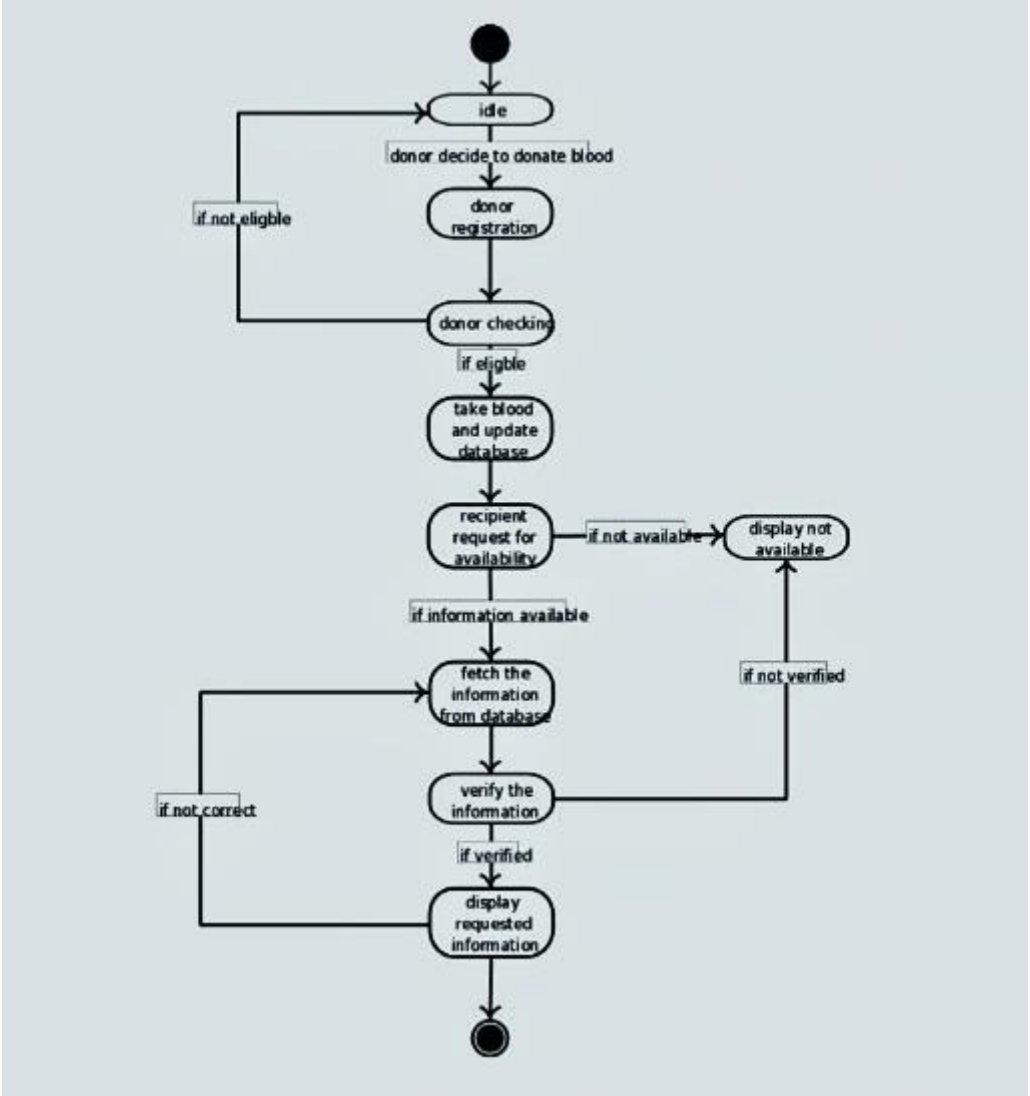
Table 5:Blood_master

name	Type	Allow Null
id	INT(10)	No
group	VARCHAR	No

STATE TRANSITION DAIGRAM:

The state transition diagram represents the behaviour of a system by depicting its states and the events that cause the systemto change state. In addition, the STD indicates what actions (e.g., process activation) are taken as a consequence of a particular event. A state transition diagram indicates how the system moves from state to state. State transition diagrams have been used right from the beginning in object-oriented modelling. The basic idea is to define a machine that has a number of states (hence the term finite state machine). The machine receives events from the outside world, and each event can cause the machine to transition from one state to another.

State transition diagram for blood bank system:



ER DIAGRAM:

The entity/relationship diagram enables a software engineer to fully specify the data objects that are input and output from a system, the attributes that define the properties of these objects, and their relationships. Like most elements of the analysis model, the ERD is constructed in an iterative manner.

Relationship Diagram Notations

1) Entity

An entity is an object or concept about which you want to store information.

2) Weak Entity

A weak entity is an entity that must defined by a foreign key relationship with another entity as it cannot be uniquely identified by its own attributes alone

3) Key attribute

A key attribute is the unique, distinguishing characteristic of the entity. For example, an employee's social security number might be the employee's key attribute.

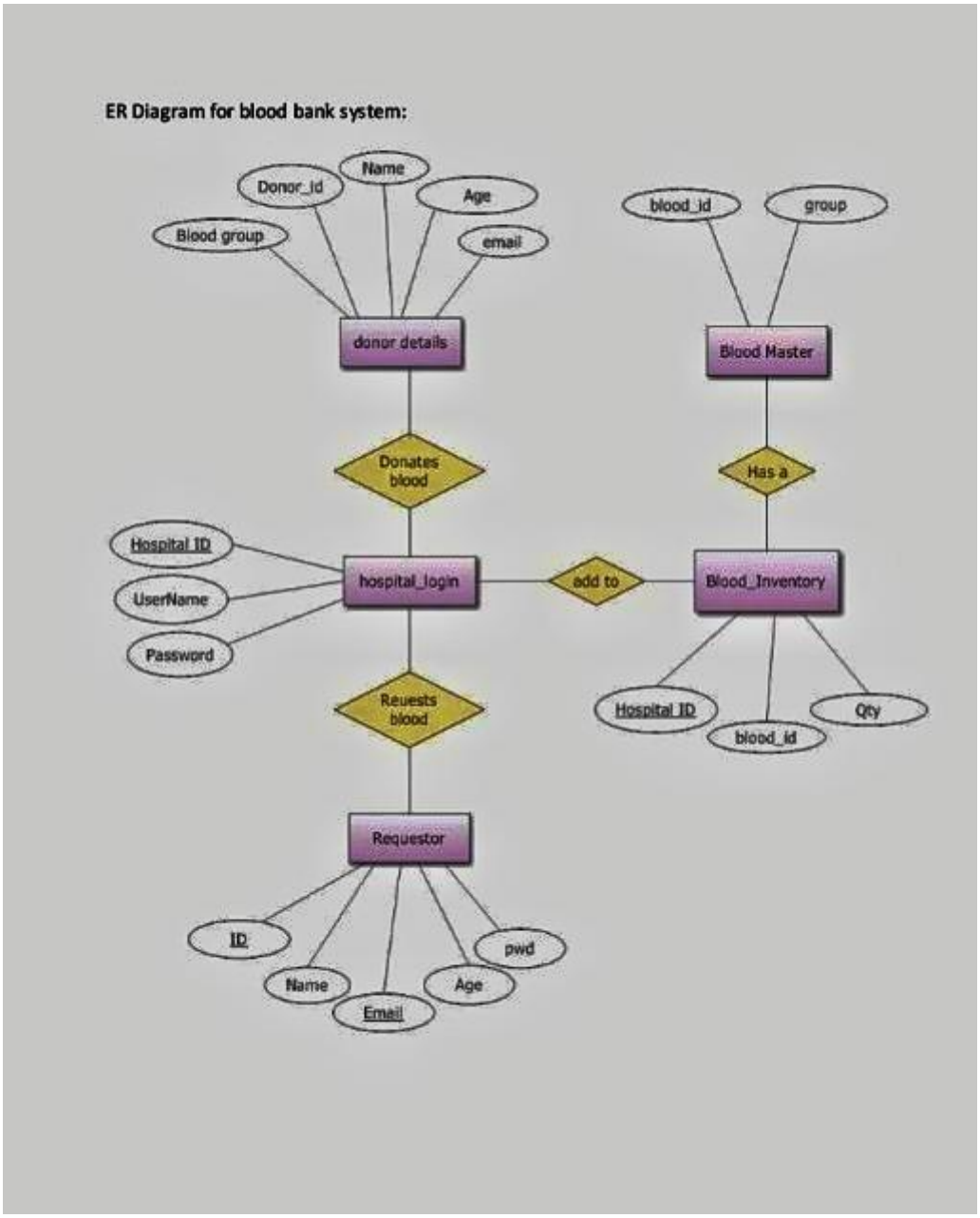
3) Multi valued attribute

A multi valued attribute can have more than one value. For example, an employee entity can have multiple skill values.

6) Relationships

Relationships illustrate how two entities share information in the database structure.

ER DIAGRAM FOR BLOOD BANK SYSTEM



6.CODING & OUTPUT SCREENS

This are the module to add functionality for Blood Bank Management System Project in Django

Create template for the homepage in Blood Bank Management System Project in Django.

we will learn on how create a templates for the homepage. To start with, add the following code in your home_base.html under the folder of template files.

6.1 CODING

```
<!DOCTYPE html>
<html lang="en">

<head>

    {% load static %}

    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <link rel="stylesheet" href="{% static 'css/bootstrap.min.css' %}">
    <link rel="stylesheet" href="{% static 'css/style.css' %}">
    <script src="{% static 'js/jquery.min.js' %}"></script>
    <script src="{% static 'js/jquery-3.3.1.slim.min.js' %}"></script>
    <script src="{% static 'js/popper-1.14.7.js' %}"></script>
    <script src="{% static 'js/bootstrap.min.js' %}"></script>
    <link rel="shortcut icon" type="image/x-icon" href="{% static 'photos/logo/searchlogo.jpg' %}">

    <title>Blood Bank Management System</title>
</head>
```

```
<body>
   <div class="container-fluid">
      <!-- head title -->
      <header>
         <h5 class="head text-white text-center p-3">Blood Bank Management System</h5>
      </header>

      <!-- navbar -->
      <nav class="navbar navbar-expand-sm sticky-top">

         <!-- logo -->
         <a class="navbar-brand ml-5" href="#">
            <img src="{% static 'photos/logo/searchlogo.jpg' %}" alt="logo"
style="width:60px;">
         </a>

         <!-- navbar item -->
         <div class="col">
            <ul class="navbar-nav flex-row-reverse">
               <li class="nav-item text-dark">
                  <a class="nav-link font-weight-bolder" href="{% url 'aboutsite1' %}">About
Us</a>
               </li>
               <li class="nav-item">
                  <a class="nav-link font-weight-bolder" href="{% url 'contactsite1'
%}">Contact Us</a>
               </li>
               <!-- Dropdown -->
               <li class="nav-item dropdown">
                  <a class="nav-link font-weight-bolder" href="#" data-toggle="dropdown">
```

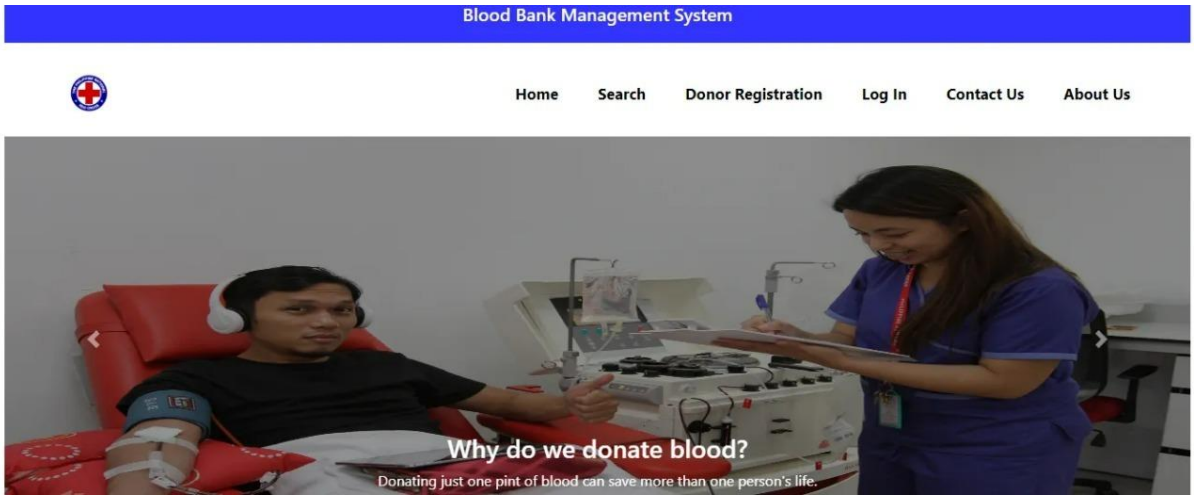
```
            Log In
          </a>
                <div class="dropdown-menu">
                  <a class="dropdown-item font-weight-bolder" href="/admin/">Admin</a>
                </div>
              </li>
              <li class="nav-item">
                <a class="nav-link font-weight-bolder" href="{% url 'dregsite' %}">Donor
Registration</a>
              </li>
              <li class="nav-item font-weight-bolder">
                <a class="nav-link" href="{% url 'searchsite1' %}">Search</a>
              </li>
              <li class="nav-item font-weight-bolder">
                <a class="nav-link" href="{% url 'homesite1' %}">Home</a>
              </li>
            </ul>
          </div>
        </nav>

        <!-- Carousel  -->
        <div class="carousel_slid">
          <div class="opacity_carousel"></div>
          <div id="slide" class="carousel slide" data-ride="carousel">
            <!-- carousel indicators -->
            <ul class="carousel-indicators">
              <li data-target="#slide" data-slide-to="0" class="active"></li>
              <li data-target="#slide" data-slide-to="1"></li>
              <li data-target="#slide" data-slide-to="2"></li>
            </ul>
            <div class="carousel-inner">
```

```
                <div class="carousel-item carousel-img-1 active">
                    <img src="{{ home_slider.slider_1.url }}" alt="Slid Image">
                    <div class="carousel-caption">
                        <h3>Why do we donate blood?</h3>
                        <p>Donating just one pint of blood can save more than one person's life.</p>
                    </div>
                </div>
                <!-- carousel item -->
                <div class="carousel-item carousel-img-2">
                    <img src="{{ home_slider.slider_2.url }}" alt="Slid Image">
                    <div class="carousel-caption">
                        <h3>Why do we donate blood?</h3>
                        <p>Whenever you donate blood, you’re giving someone the opportunity to have a new lease on life, not to mention that you’re also giving your overall health a great boost.</p>
                    </div>
                </div>
                <div class="carousel-item carousel-img-3">
                    <img src="{{ home_slider.slider_3.url }}" alt="Slid Image">
                    <div class="carousel-caption">
                        <h3>Why do we donate blood?</h3>
                        <p>It is not more painful than losing a loved one that you may save by donating!</p>
                    </div>
                </div>
            </div>
            <!-- carousel control -->
            <a class="carousel-control-prev" href="#slide" data-slide="prev">
                <span class="carousel-control-prev-icon"></span>
            </a>
            <a class="carousel-control-next" href="#slide" data-slide="next">
```

```
            <span class="carousel-control-next-icon"></span>
          </a>
        </div>
      </div>

      {% block content %}



      {% endblock %}

      <!-- footer -->
      <div class="footer clearfix">
        <p class="text-center text-white p-2">
          Philippine Red Cross Blood Bank Management System
          <br> The National Headquarters of the Philippine Red Cross us
          <br> located at 37 EDSA corner Boni Avenue,
          <br> Mandaluyong City, Metro Manila.
          <br>

        </p>

      </div>

    </div>
</body>

</html>
```

After adding the code, you may click the run button to test the code. The output should look like as shown below.

OUTPUT SCREEN



Create template for the search page in Blood Bank Management System Project in Django.

we will learn on how create a templates for the search page. To start with, add the following code in your search.html under the folder of template files.

6.2 CODING

```
{% extends 'base.html' %}



{% block content %}


  <!-- Search -->

  <div class="search">

    <img src="{{ logo_img.logo_image.url }}" class="rounded-circle" alt="Logo" width="221" height="227">

    <form action="{% url 'donorlistsite' %}" method="POST">

      {% csrf_token %}
```

```
        <div class="input-group mb-3">
          {{forms_search.select_blood_group}}
          {{forms_search.select_location}}
        </div>
      <button type="submit" class="btn search_bt">Search</button>

    </form>
  </div>


 {% endblock  %}
```

After adding the code, you may click the run button to test the code. The output should look like as shown below.

OUTPUT SCREEN

Create template for the donor registration form in Blood Bank Management System Project in Django.

we will learn on how create a templates for the donor registration form. To start with, add the following code in your registrations .html under the folder of template files.

6.3 CODING

```
{% extends 'base.html' %}



{% block content %}



   <div class="container-fluid">
      <div class="form_body">
         <h2 class="text-center font-">Blood Donor Registration Form</h2>
         <form action="{% url 'dregdisplay' %}" method="post">
            {% csrf_token %}
            {{forms.as_p}}
            <button type="submit" class="btn reg_btn">Submit</button>
         </form>
      </div>
   </div>



{% endblock  %}
```

After adding the code, you may click the run button to test the code. The output should look like as shown below.

OUTPUT SCREEN

Create template for the contact us page in Blood Bank Management System Project in Django.

we will learn on how create a templates for the contact us page. To start with, add the following code in your contact_us.html under the folder of template files.

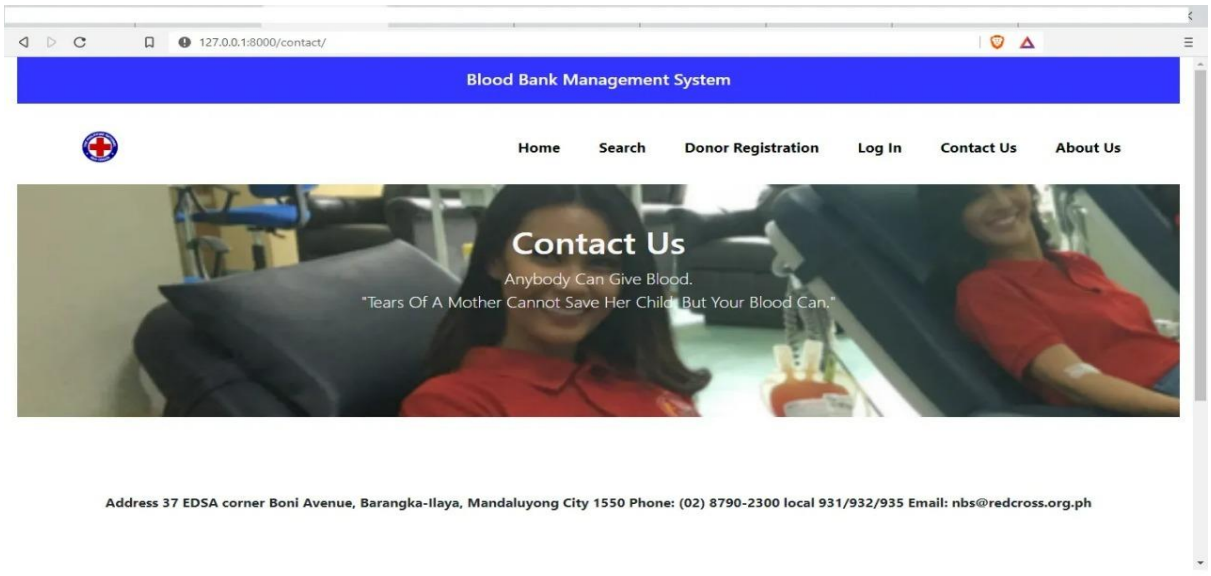
6.4 CODING

```
{% extends 'base.html' %}



{% block content %}


<div class="about_page">
   <div class = "Contact_body">
   <!-- page image -->
   <header id="page-header">
      <div class="col-md-6 m-auto text-center text-light">
         <h1>Contact Us</h1>
         <p class="lead">Anybody Can Give Blood.
```

```
            <br>"Tears Of A Mother Cannot Save Her Child. But Your Blood Can."</p>
        </div>
    </header>

    <!-- address -->
    <div class="address text-center">
        <address class="p-5 font-weight-bold">{{ contact.contact_text }}</address>
    </div>
    </div>
</div>


{% endblock  %}
```

After adding the code, you may click the run button to test the code. The output should look like as shown below.

OUTPUT SCREEN



Create template for the about us in Blood Bank Management System Project in Django.

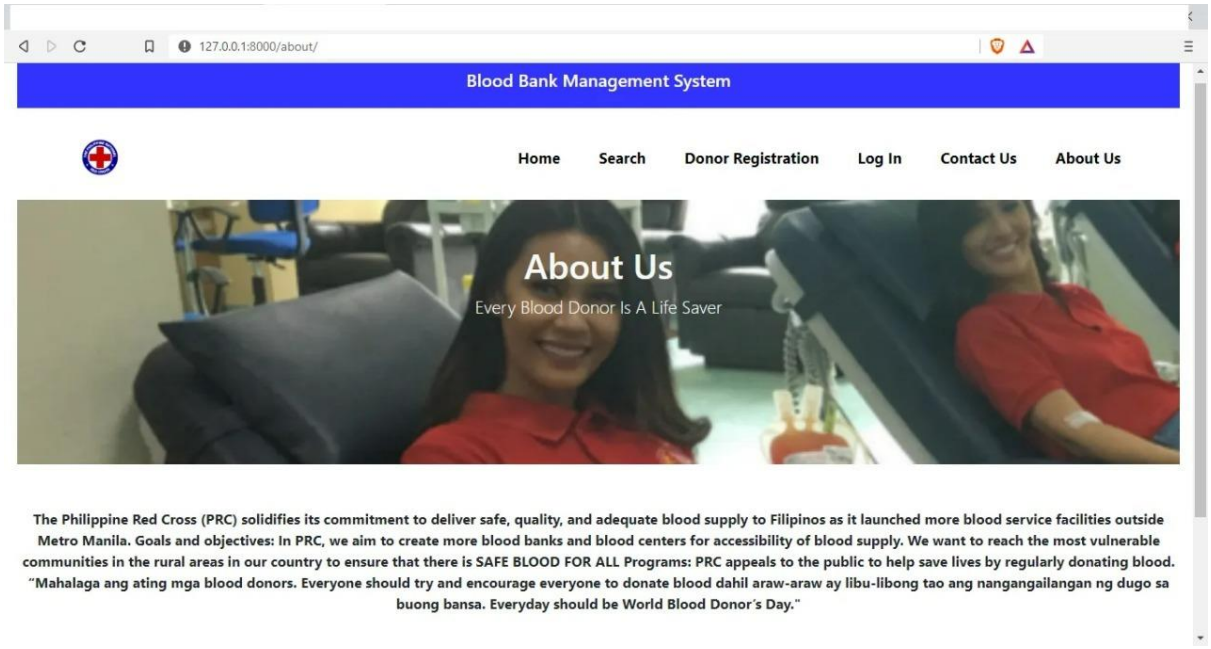
we will learn on how create a templates for the about us page. To start with, add the following code in your about_us.html under the folder of template files.

6.5 CODING

```
{% extends 'base.html' %}



{% block content %}



<!-- page image -->
<header id="page-header">
   <div class="col-md-6 m-auto text-center text-light">
      <h1>About Us</h1>
      <p class="lead">Every Blood Donor Is A Life Saver</p>
   </div>
</header>

<!--about-->
<div class="about text-center">
   <p class="font-weight-bold">{{ about.about_text }}</p>
</div>



{% endblock  %}
```

After adding the code, you may click the run button to test the code. The output should look like as shown below.

OUTPUT SCREEN



8.TESTING

System testing is the stage earlier than machine implementation in which the device is made mistakes free and all the needed adjustments are made. The gadget turned into examined with take a look at information and essential corrections to the machine had been executed. All the reviews were checked with the aid of the person and accepted. The machine became very user friendly with on-line assist to assist the user anywhere essential.

Test Plan: A test plan is a preferred record for the whole undertaking, which defines the scope, technique to be taken, and schedule of checking out, in addition to identifying the check object for the complete trying out system, and the personal liable for the special activities of trying out. This report describes the plan for testing, the understanding management device.

Major testing activities are:

1. Test units
2. Features to be tested
3. Approach for testing
4. Test outputs
5. Schedule
6. Personal allocation

Test units: Test Case specification is important activity inside the checking out manner. In this undertaking, I have accomplished stages of testing.

Unit testing

System trying out

The fundamental devices in Unit trying out are:

Validating the user request

Validating the enter given via the person

Exception dealing with

The simple units in System trying out are:

Integration of all applications is accurate or not

Checking whether the whole device after integrating is running as expected.

The gadget is tested as entire after the unit testing.

Other Testing Strategies:

Alpha Testing: This turned into accomplished at the developer's web page via a client. The software is utilized in a herbal placing with the developer "searching over the shoulder" of the consumer and recording errors and utilization issues. Alpha checks are performed in a controlled surroundings.

Beta Testing: This turned into carried out at one or greater consumer websites by way of the end-consumer of the software program. Unlike alpha checking out, the developer is usually now not present. Therefore, the beta take a look at is a "live" software of the software program

in an surroundings that cannot be controlled by using the developer. The consumer information all troubles which can be encountered at some point of beta trying out and reviews these to the developer at normal periods. As a end result of troubles stated in the course of beta checks, software program engineers make modifications and then prepare for release of the software product to the complete customer base.

Test outputs:

The following files are required besides the take a look at plan

Unit take a look at record for every unit

Test case specification for machine trying out

The report for machine testing

Error report

The take a look at case specification for gadget checking out must be submitted for review earlier than the device trying out commences.

Test case for DONAR Registration

Test Engineer	GAYATHRI
Test Case ID	TC1
Purpose	In order to verify that the user is registering according to required information and validation.
PRE REQ	Web Server have to be up. And to be had for the users. And Enter legitimate information
Test Data	Name (String) Phone # (String) City (String) Blood group (String) Location (String)
Steps	Choose your type from jack Steps to perform the test. See step formatting regulations below mention drawer,Choose choice menu from the movement bar Enter Valid Information Press Submit etc.
Status	Pass

Test case for Blood Donors

Test Engineer	DIVYA
Test Case ID	TC2
Purpose	The user can search and filter out donors as in keeping with the desired blood organization
PRE REQ	Web Server need to be up or information is already synchronized in case of mistakes in connection
Test Data	City Blood group
Steps	Steps to carry out the check. See step formatting policies under. Choose Volunteer Donors from Navigation Drawer Search required blood donor from listing Filter the end result by way of metropolis or blood and so forth.
Status	Pass

SYSTEM IMPLEMENTATION

DESCRIPTION OF PROJECT IMPLEMENTATION:

During the software-testing phase each module of software is very well examined for bugs and for accuracy of output. The gadget advanced is very consumer-friendly and the distinct documentation is also given to the user as online help wherever vital.

The implementation segment typically ends with the formal take a look at involving all of the additives.

The complete gadget turned into developed the use of the ASP, HTML, JavaScript, Personal Web Server, and Oracle 8 as again end. The HTML is used to design the web web page. The Personal Web Server is used to apprehend the patron's request and to ship response to them. The VB Script are used for consumer-side validations in order that the person can enter handiest appropriate input within the input fields. The Oracle eight is the returned end tool where the database resides.Hence the design of the complete device is user-friendly and easy the implementation has been quite clean.

Blood Bank Management System Project in Django with Source Code

The Blood Bank Management System Project in Django is created using Python Django Framework.

The system is built fully in Django Framework in back-end and HTML, CSS and JavaScript in front-end.

This Blood Bank Management System Project has functionalities of enlisting blood givers and through which individuals requiring blood can look and contact them after donors are registered.

This websites gives highlights of admin board through which admin can contact all givers list, all blood banks needed during donations through admin.

Front - End	HTML, CSS and JavaScript
Back - End	Django Framework
Database	SQLite3

How To Run The Blood Bank Management System Project in Django with Source Code?

Step 1: Extract/unzip the file

Step 2: Go inside the project folder, open cmd and type the following commands to install Django. Framework and run the webserver:

pip install Django Pillow

python manage.py runserver

Step 3: Finally, open the browser and go to http://127.0.0.1:8000/

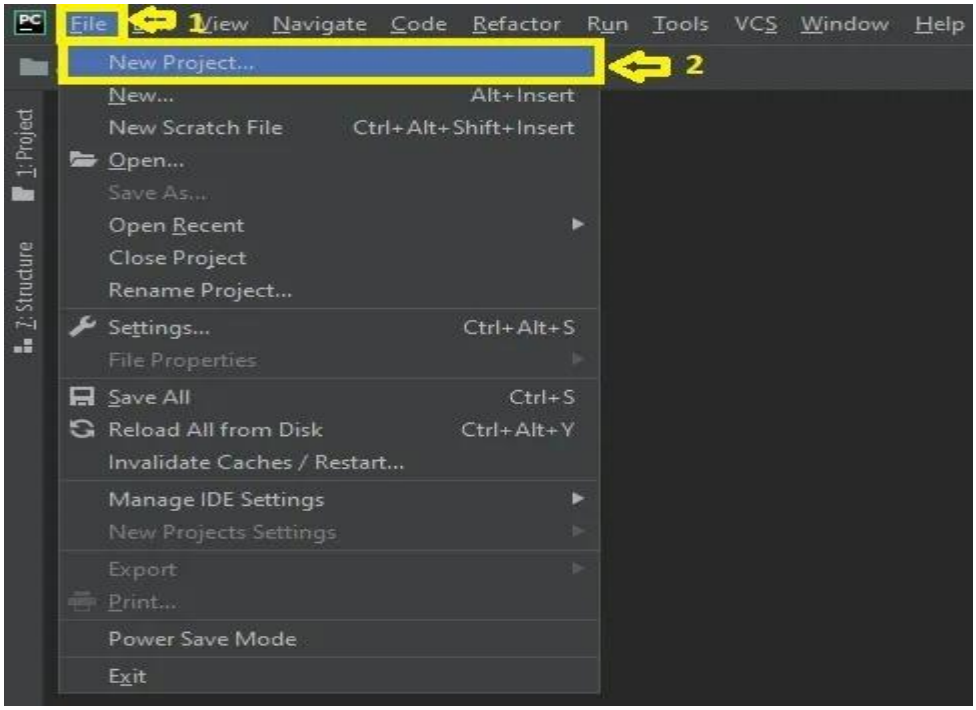
For admin panel:

Username: admin

Password: admin

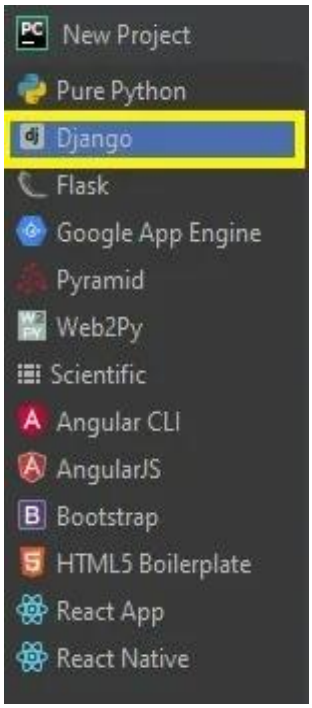
Step 1: Open file.

First , open “pycharm professional” after that click “file” and click “new project“.



Step 2: Choose Django

Second, after click “new project“, choose “Django” and click.



Step 3: Select file location.

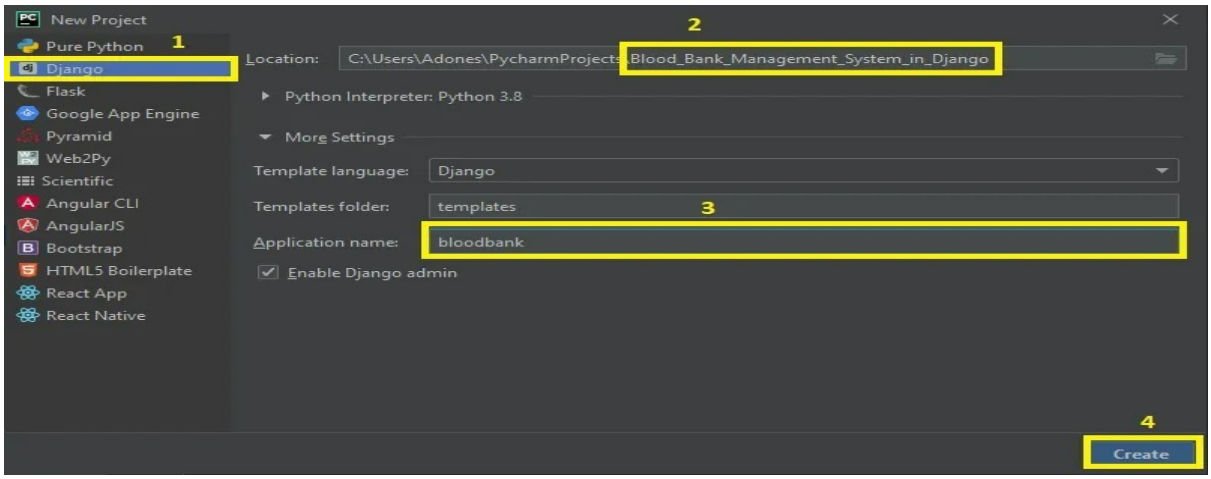
Third, select a file location wherever you want.

Step 4: Create application name.

Fourth, name your application.

Step 5: Click create.

Fifth, finish creating project by clicking “create” button.



Django Blood Donation Management System

The main objective of this project is to create a platform where the people or patients in need of the blood can easily find a donor of the same blood group. This connects the donors and the recipients.

This project aims at maintaining all information regarding blood donors, different blood groups available in blood banks as wells as blood camps and help them manage in a better way.

This Blood Bank Management System Project in Django has functionalities of enlisting blood givers and through which individuals requiring blood can look and contact them after donors are registered.

This websites gives highlights of admin board through which admin can contact all givers list, all blood banks needed during donations through admin.

Additionally, this system has a contact page where all contact details are accessible if a blood emergency happens and the website is inaccessible.

Blood Bank Management System Project in Django with Source Code Free Download 2021 | Python Django

To start creating a Blood Bank Management System Project in Django, makes sure that you have PyCharm Professional IDE Installed in your computer.

Features of Blood Bank Management System Project in Django

Homepage – For the homepage, you will be able to all the basic access in the whole system. Such as home, search, donor registration, login, contact us and about us.

Search – For the search, you will be able to search the blood type you want and the address of a donor person.

Donor Registration – For the donor registration, you will fill the forms. Such as your complete name, gender, date of birth, blood type, phone number, email address, home address and etc.

Contact Us – For the contact us, you will be able to see their address, phone number and email address.

About Us – For the about us, you will be able see the goals and objectives of blood bank management system.

9. CONCLUSION

In this chapter we have Define the components that are needed, and Specified how components "communicate" with other components. We have modularized the project into discrete work packages, identified critical interfaces that must be well defined. We have designed the block diagram, they are typically used for higher level, less detailed descriptions. After that we have designed system architecture, a system architecture is the conceptual model that defines the structure, behaviour, and more views of a system A data flow diagramisa graphical representation that depicts information flow and the transforms that are applied as data move from input to output. A table is a data structure used to organize information. A state transition diagram indicates how the system moves from state to state, E-R diagrams fully specify data objects, properties of the objects and the relationship.

With the theoretical inclination of our syllabus it becomes very essential to take the atmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project" BLOOD BANK Management System was one of these opportunties. It gave us the requiste practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the folowing aspects of project development:

• The planning that goes into implementing a project.

• The importance of proper planning and an organized methodology.

•The key element of team spirit and co-ordination in a successful project

•The project abo provided us the opportunity of ateracting with our teachers and to gain from their best experience

This undertaking has given me an okay opportunity to layout, code, check and implements an utility. This has helped in setting into practice of diverse Software Engineering principles and Database Management standards like maintaining integrity and consistency of information. Further, this has helped me to examine more approximately ORACLE eight, ASP 2.Zero, HTML, VB Script, Adobe Photo store 7.Zero and Personal Web Server.

I thank my guide for his priceless contribution in guiding me via out the assignment.

I additionally thank my dad and mom and pals who have supported and influenced me to complete this mission successfully.

Compliance:

The other features, which the Blood bank offerings provide, can also be integrated into this Blood Bank. The Encryption requirements can also be used to make the transactions extra cozy. The Socket Secure Layer protocol can also utilized in implementing the gadget, which offers maximum protection inside the Internet.

10. FUTURE ENHANCEMENT

BLOOD BANK MANAGEMENT is a software application to but such a way that i should suits for all type of blood banks in future.

One important future scope is availability of bocation based blood bank details and extraction of location based donor's detail, which is very helpful to the acceptant people. All the time the network facilities cannot be use. This time donor request does not reach is proper time, this can be void through adding some message sending procedure this will help to find proper blood donor in time. The will provide availability of blood in time.

- At first need Blood request option.
- Blood Camp Management, Blood Component issue.
- Provide a connection with hospitals where Blood request will find all donors etc.
- Blood Transfusion and Timely Notifications.

As there was a touch variety of contact person’s records given, a few people may face problem in getting blood speedy. So i really like to collect greater facts concerning the contact humans in different cities in addition to villages and will offer a good buy more services for the human beings and help everybody with humanity.

11. REFERENCES

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