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# DONATION MANAGEMENT SYSTEM

## PROJECT PROTOTYPE

### 1. Introduction & Goals:

The software aims at providing a user-friendly, powerful and efficient means to store, manage and edit donations. It is a dynamic transaction system, that will allow hospitals to maintain records of Donor(s), Donations, Projects and Departments. Backed up by a powerful database, the transactions will be secure and reliable.

Hospitals will be able to use this software to:

- a) Manage and review donations.
- b) Maintain records for donors.
- c) Carry out transactions/donations efficiently.
- d) Add new Projects and Departments ready to receive donations.
- e) Create secure user accounts for Hospital Staff & Reception.
- f) Review all the information through a powerful User Interface.

### 2. Softwares and Frameworks used:

The following frameworks have been used to build the project:

- a) Java (SE Development Kit 12)
- b) Eclipse IDE & Maven (2019 Enterprise Edition)
- c) Spring Framework (v5.0)
- d) MySQL DBMS (v5.7) & Apache Tomcat Server 9
- e) HTML5, CSS, JavaScript

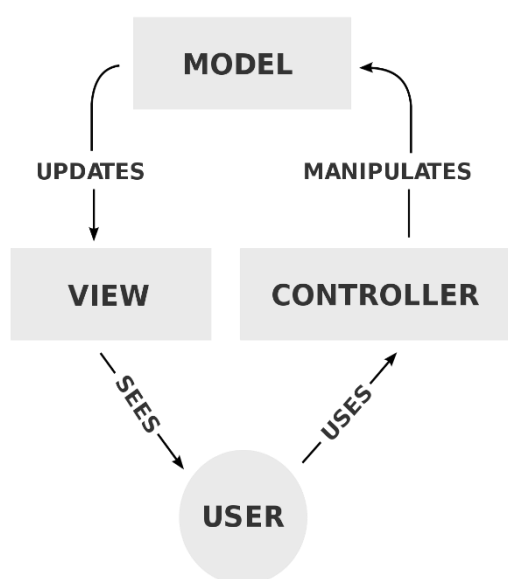
### 3. Requirements:

- ~ No special hardware requirements
- ~ Latest version of Google Chrome
- ~ MySQL server client (5 or above)
- ~ Apache Tomcat Server (8 or above)

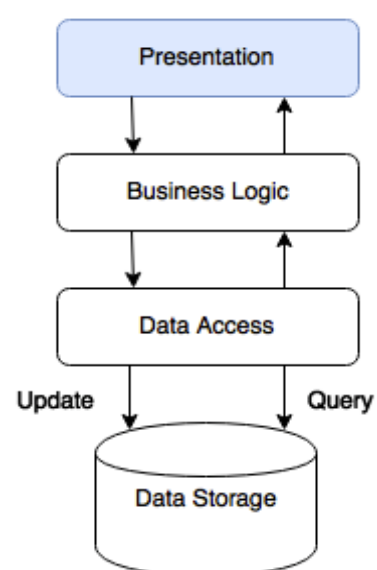
### 4. Design & Architecture:

The software is based on Model – View – Controller Architecture. There is no direct communication between the UI part and the backend part. All the communications are done through a series of layers, namely Service, Controller & DAO layers. This architecture makes the project fast, efficient and more secure. It also allows the project to become customizable for any future releases.

All the operations in this project follow the CRUD design (Create, Read, Update & Delete). These are 4 basic operations that offer persistent and secure storage in the database.



**MVC ARCHITECTURE**



**CRUD DESIGN**

## 4. Front-End Overview\*:

LOGIN Page: Demands username & password of the Hospital's staff. After successful authentication, redirects to the 'Welcome' Page.

SELECT DONOR Page: Lets you select a particular donor from an existing list of donors. If the requested donor doesn't exist on the list, an 'Add Donor' link has been provided.

ADD DONOR Page: Lets you add a new donor to the existing list of donors.

SELECT PROJECT Page: After choosing the donor, we choose the type of project the donor wishes to donate in. If the project doesn't exist, an 'Add Project' link has been provided.

ADD DONATION Page: After choosing the project type, the donation amount can be entered in this page, and a 'Print Receipt' option is provided.

RECEIPT Page: Receipt having Transaction details and a print option.

DONOR Page: List of all donor profiles (reverse chronological order).

PROJECTS Page: List of all projects.

TRANSACTIONS Page: List of all transactions (reverse chronological order).

\*There are many more pages providing subtle utilities for transaction process that are available with the software. Error pages have been implemented wherever required.

All the pages have been backed up by powerful Form authentication that use HTML5 and Bootstrap 4 (To preserve model Integrity). The pages provide efficient User Friendliness. Basic design is uniform for all pages. Graphic animations, Navbars, Tables, Search Bars, Date Pickers, Dropdowns, Regex and Popups have been used wherever required.

## 5. Models and Entities:

### a) Donors:

1. Unique ID
2. Entity Type
3. Name
4. Address
5. PAN no.
6. Residential status (for individuals)
7. Citizenship (for Individuals)
8. Registration no. (for corporate Entity)
9. Incorporation Date
10. Bank Details
11. Key Person(s) (Provide for Five)
  - a. Name
  - b. Designation
  - c. Phone no.
  - d. E-mail ID
12. Reference Details
  - a. Name
  - b. Phone no.
  - c. E-mail ID
  - d. Remark

### b) Projects:

1. Project ID
2. Project Description

3. Capital Budget
4. Yearly Recurring Budget
5. Expected Beneficiaries (Description and Number of beneficiaries)
6. Current Status: Active, In-Active, WIP,
7. Remarks: Name of supporting government / Semi government

### c) Transactions:


1. Donor ID
2. Name of Donor
3. Location
4. Date
5. Amount
6. Donation Receipt no.
7. Project ID
8. Department ID

These models are entities that will be used in the Donation Process. The information for these models is stored in the database. Proper use of Keys has been made while making relations in the database, to provide ease in CRUD operations. These models were built in Java programming Language and were then successfully integrated with all the MySQL relations & tables.


## 5. UI Snippets (for some pages):

### Landing Page:

WELCOME!



[Add Donation](#)[Home](#)[Projects](#)[Add Donor](#)[Show Transactions](#)

 user1


Search:

### DONOR PROFILES


ID	NAME	ADDRESS	CITIZENSHIP	OPTIONS
26	Shyaam	Kashmir	India	<a href="#">VIEW</a>   <a href="#">EDIT</a>
25	Saksham	New York, California	NRI	<a href="#">VIEW</a>   <a href="#">EDIT</a>
24	Maneesh	Allahabad	India	<a href="#">VIEW</a>   <a href="#">EDIT</a>
23	Manoj	Ahmedabad	India	<a href="#">VIEW</a>   <a href="#">EDIT</a>
22	Saransh Malhotra	D-52, Plaza heights, Mumbai	India	<a href="#">VIEW</a>   <a href="#">EDIT</a>
21	Jatin	Indore	India	<a href="#">VIEW</a>   <a href="#">EDIT</a>
20	Karan	Memphis, USA	NRI	<a href="#">VIEW</a>   <a href="#">EDIT</a>
19	Karan	Memphis, USA	NRI	<a href="#">VIEW</a>   <a href="#">EDIT</a>

### Project Page:

PROJECTS OFFERED



[Add Donation](#)[Home](#)[Projects](#)[Add Donor](#)[Show Transactions](#)

 user1

Search:

[Add Project](#)

### PROJECTS

PROJECT ID	PROJECT NAME	DEPARTMENTS	CAPITAL BUDGET	RECURRING BUDGET	FUNDS RECIEVED	OPTIONS
16	ENT	Endocrine	850000000	500000	10000	<a href="#">VIEW</a>
15	Gynaecology	Reproductive	8000000	50000	890	<a href="#">VIEW</a>
14	test	Digestive	700000	8000	19653	<a href="#">VIEW</a>
12	Physiotherapy	Muscular	800000	5000	560	<a href="#">VIEW</a>
11	Pharma	Digestive	600000000	600000	100	<a href="#">VIEW</a>

## Receipt Generation:

### INVOICE

<b>ABC HOSPITALS</b> 2135 Sunset Enclave Vadodara, Gujarat <u>Phone.;</u> (0265) 326-2979	Date: 2019-07-26 Receipt #: 34522677W Unique Payment ID: 875623318788			
Donor : Saransh Malhotra				
Receipt				
Project	Payment	#	Price	Total
Urology	Cash	1	0	0
			Subtotal:	0
			Tax:	0
			Total:	0
<a href="#">PRINT &gt;</a>				
THANK YOU!				

[HOME](#)

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## 5. About:

The following project was developed as a part of my Summer Internship (2019) for PurpleDocs Ltd. at Vadodara, India. I completed this project under the mentorship of **Mr. Bhavin Tank**.

Company Website: <https://www.purpledocs.com/home.html>

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