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**BLOOD DONATION MANAGEMENT SYSTEM**

CONTRIBUTION:

Normalization, Triggers, I Wrote code for UI Design and Backend.

**TABLE NAMES :**

1.donation

2.user

3.blood\_requests

**KEYWORDS:**

1.Relation – donation (eg:Table)

2.Domain – Values in particular table

3.Attribute – Columns(donor\_id , blood\_type,donation\_date,status,blood\_group,quantity)

4.Constraint – Relation ( NULL , NOT NULL) – composite key,primary key, secondary key

5.Tuples – Set of Records

6.Normalaization – Reduce redundancy and Integrity

1NF ,2NF, 3NF,4NF,5NF

**TABLE NAMES :**

1.donation [Master Table]

2.user [MASTER TABLE][transaction table]

3.blood\_requests [TRANSACTION TABLE]

1NF – donation , there is a column named blood\_type which is the primary key

2NF – no partial dependency – user , blood\_requests

3NF – no transitive partial dependency

Student info – student\_id , name , job\_id , job\_name , native\_place\_id , native\_place

1NF – student\_id can be the primary key. Hence 1NF

2NF – TABLES:

1.Student Role table (columns – student\_id , job\_id)

2.Student – student\_id,name,native\_id,native\_place

3.Job – job\_id,job\_name

3NF - TABLES:

1.Student Roll – student\_id,job\_id

2.Student – student\_id,name,native\_id

3.Job – job\_id,job\_name

4.Native – native\_id,native\_place

CREATE,INSERT,DELETE

CREATE TABLE `donations` (

  `id` int(11) NOT NULL,

  `donor\_id` int(11) DEFAULT NULL,

  `blood\_type` varchar(10) DEFAULT NULL,

  `donation\_date` timestamp NOT NULL DEFAULT current\_timestamp(),

  `status` enum('pending','approved') DEFAULT NULL,

  `blood\_group` varchar(10) DEFAULT NULL,

  `quantity` int(11) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_general\_ci;

INSERT INTO `donations` (`id`, `donor\_id`, `blood\_type`, `donation\_date`, `status`, `blood\_group`, `quantity`) VALUES

(17, 11, NULL, '2025-04-08 06:27:41', 'pending', 'B+', 0),

(18, 12, NULL, '2025-04-08 06:29:40', 'pending', 'B+', 0),

(20, 15, NULL, '2025-04-26 10:10:12', 'pending', 'B+', 500);

DELETE TABLE `blood\_requests`

**JOIN :**

SELECT d.donar\_id,d.blood\_type,d.donation\_date,u.id,u.name

FROM donation d

JOIN user u

**DTD:**

CDATA – character data

PCDATA – Parsed character data

**XML:**

<login timeout = 10></login>

**DTD Example:**

<!ELEMENT login EMPTY>

<!ATTLIST login timeout CDATA”0”>

HTML = XML+DTD+XSL

FRONTEND – HTML,CSS-2.tailwind CSS,react JSS-3.ANDROID,FLUTTER - FLASK

BACKEND – MY SOL(EG:MANGO DB),ORACLE-2.JSON-3.SQL LITE,FIREBASE

LANGUAGE – PYTHON,PHP

FRAMEWORK – XAMPP

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| --- | --- | --- |
| MODULE NAME | SUB-MODULE NAME | DESCRIPTION |
| User module | Donate\_blood  Request\_blood | Here the donars can donate the blood , and the hospital can request for the blood. |

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| --- | --- | --- | --- | --- |
| Sub-module name | Form name | Description | Table name | Table description |
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