



# IT5512 -WEB TECHNOLOGIES LABORATORY

PROJECT PRESENTATION ON

**"MIT YRC CONNECT", A WEB  
DEVELOPMENT PROJECT**

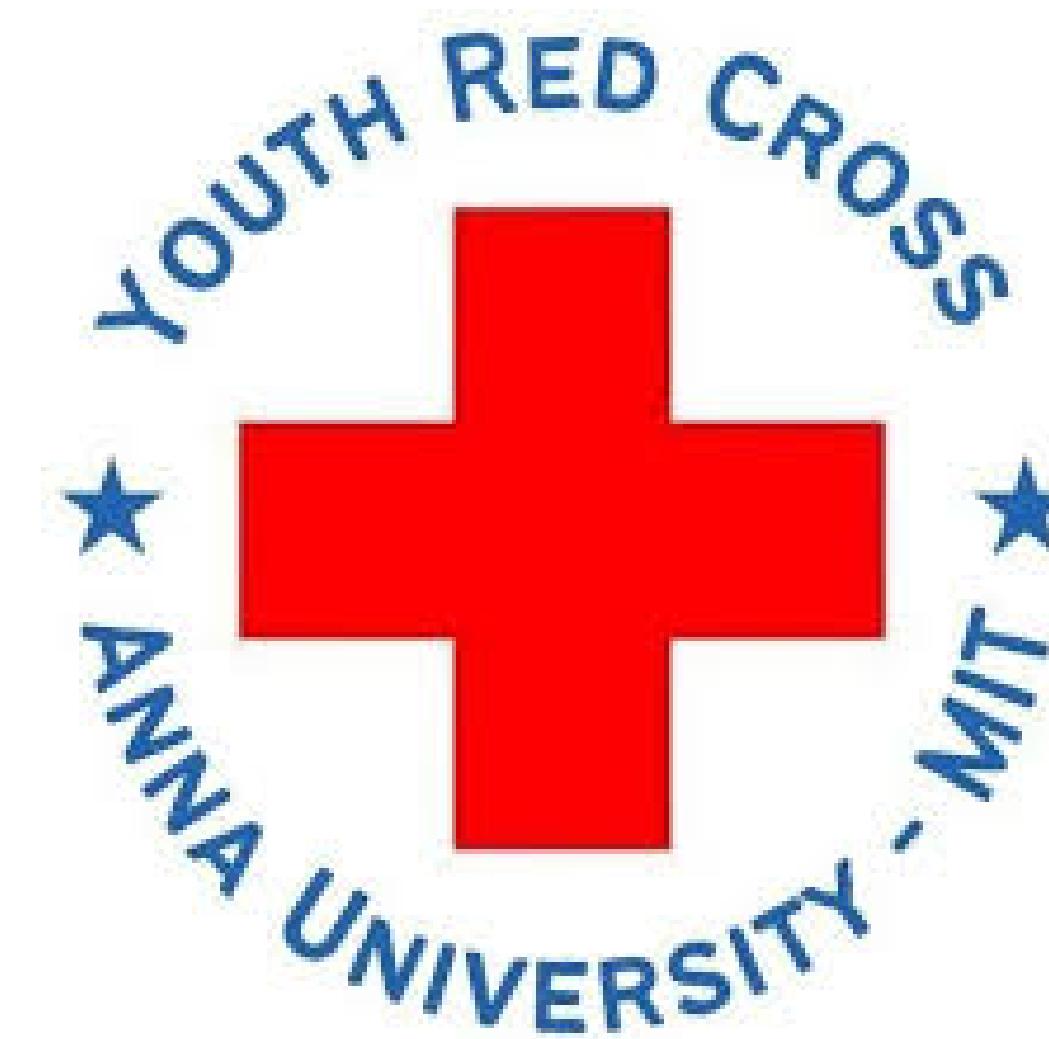
- By:  
2022506111 Alamelu KR  
2022506039 Janitha S  
2022506097 Meenakshi C  
B.Tech IT (5/8)

# PROBLEM STATEMENT AND INSPIRATION

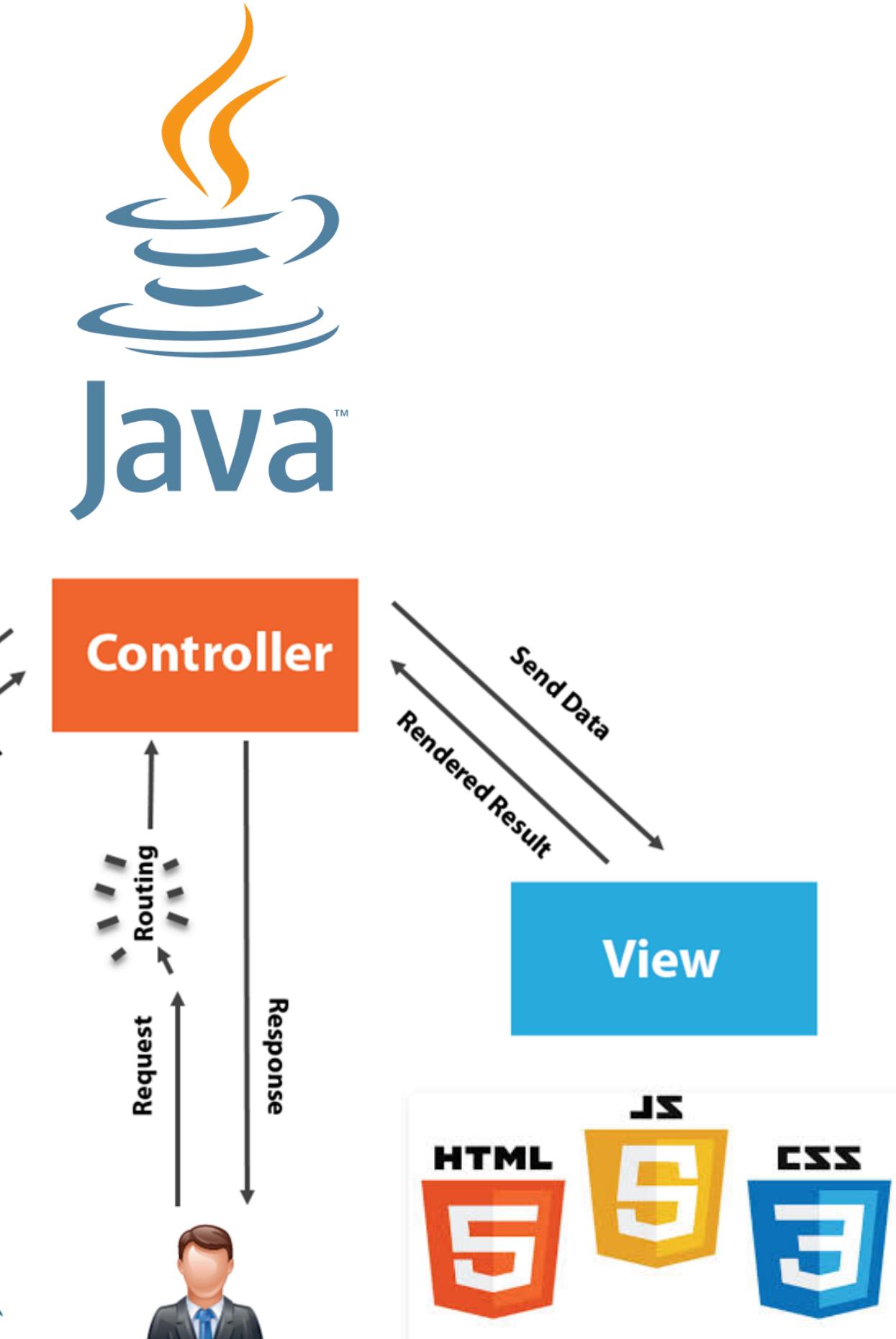
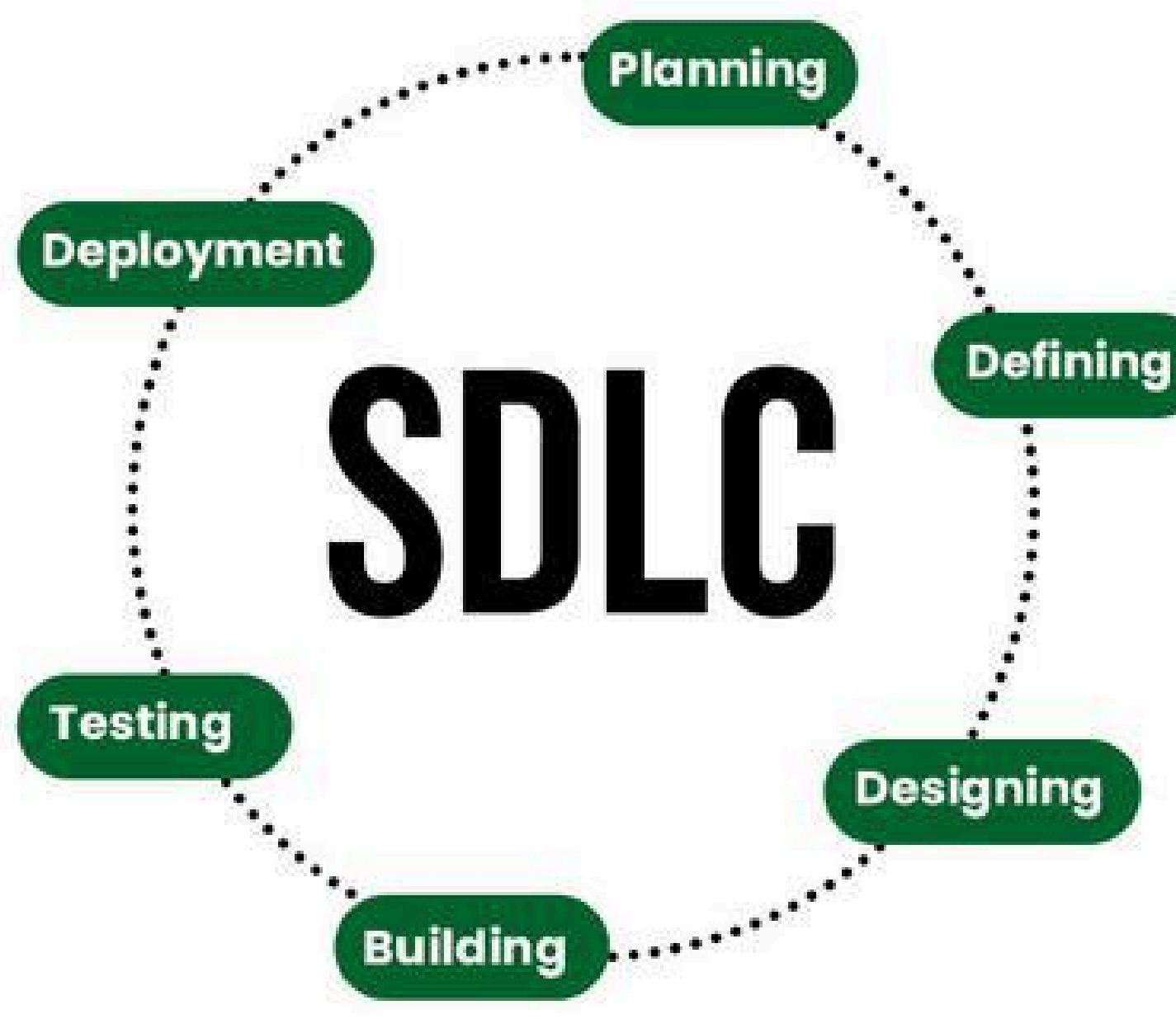
- Though there is a website that has been hosted for the club at the URL <http://lyrc.mitindia.edu/>, the current management system for YRC at MIT relies heavily on manual processes and communication platforms like WhatsApp and Excel spreadsheets.
- The existing system, while functional, does not provide an automated platform for managing these processes effectively, leading to:
  - Missed opportunities for improvement.
  - Time-consuming and inefficient administrative tasks of manual tracking, reporting, and ensuring timely responses for requests.

# PROPOSED SOLUTION

- To address the challenges faced by the MIT YRC Club, we have developed MIT YRC Connect, a web application using Java.



# PROJECT APPROACH



# PLANNING PHASE ASPECTS

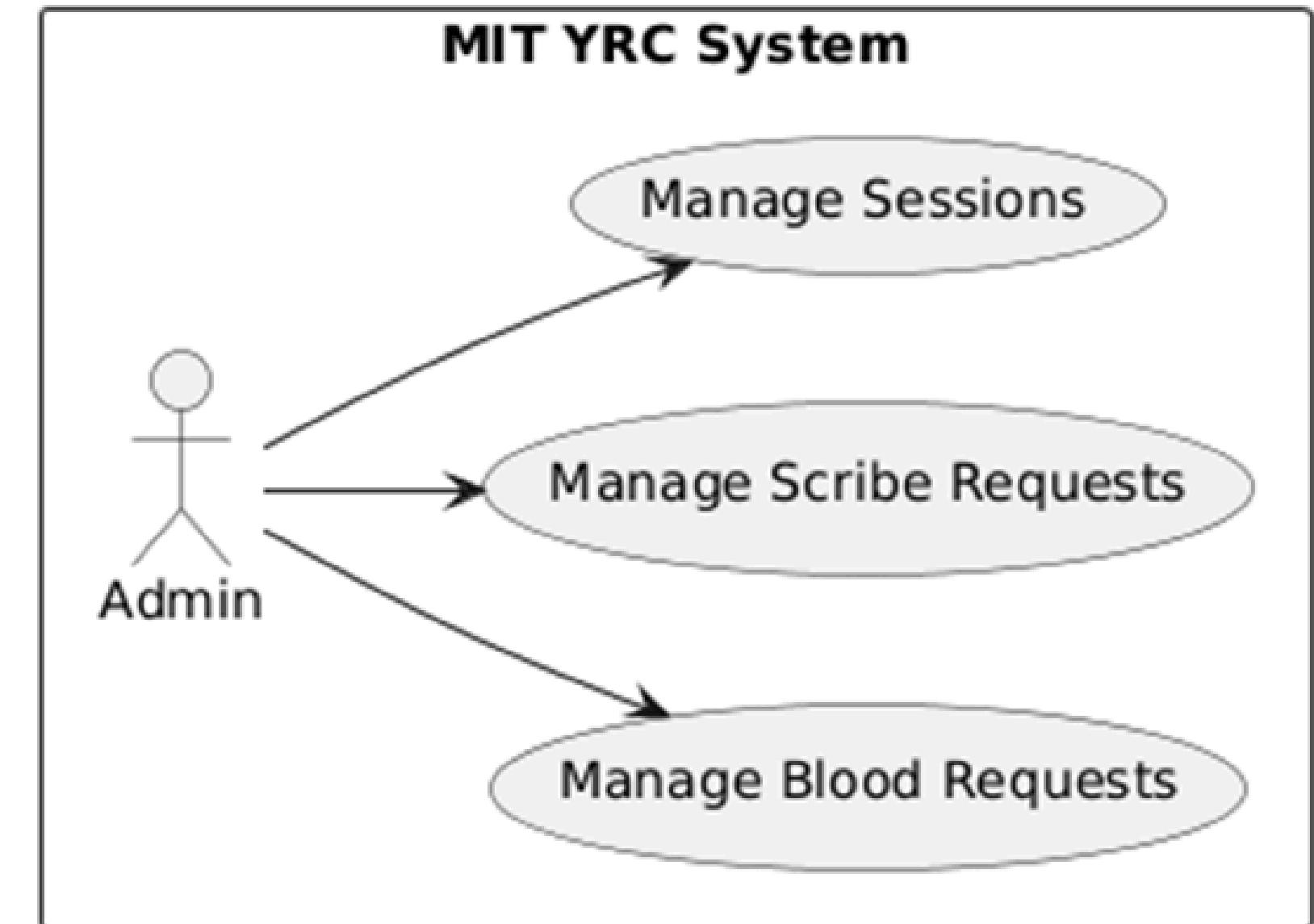
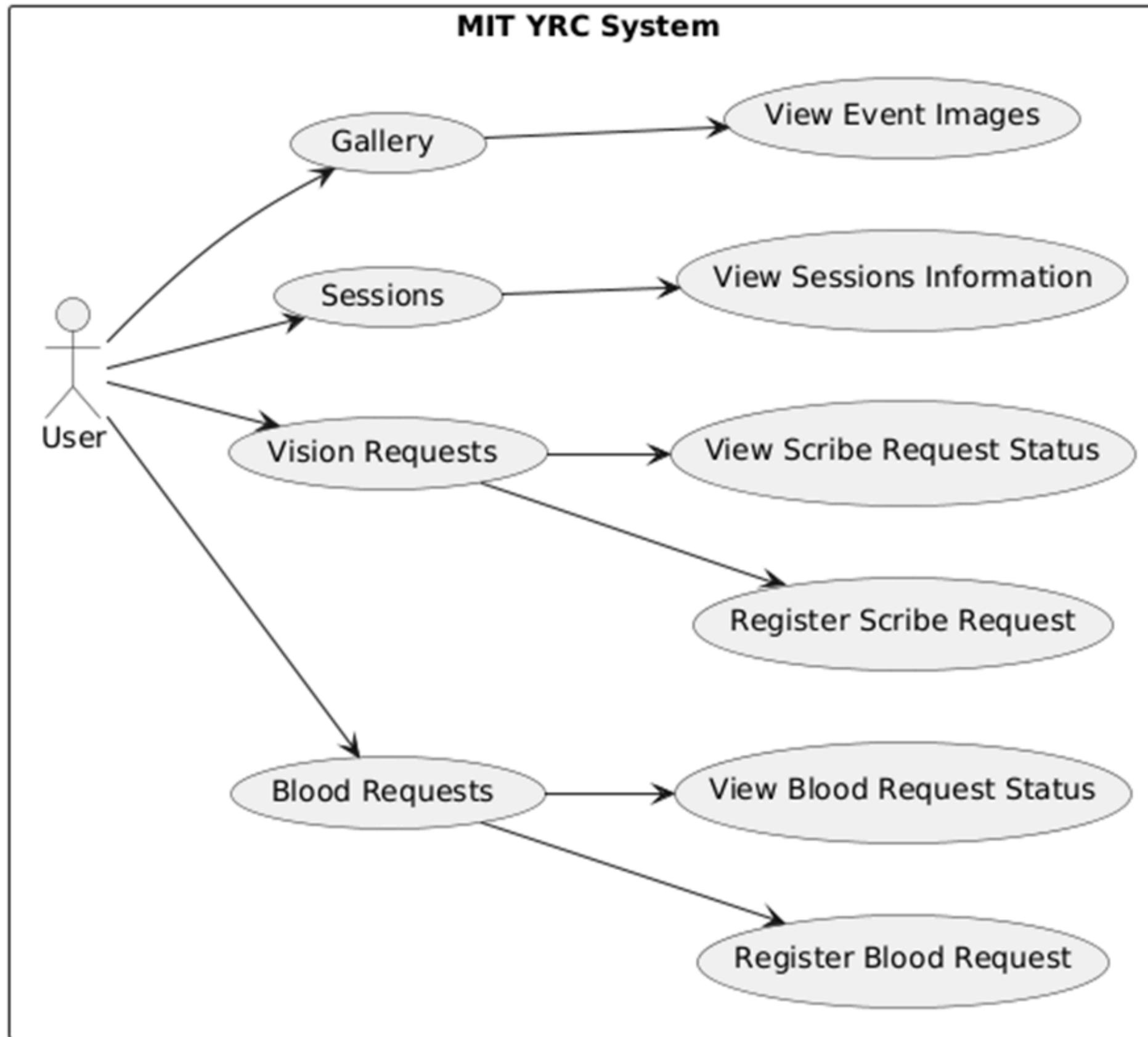
# THE PRIMARY STAKEHOLDERS

- We have identified two primary groups of users, each with specific roles and functionalities:
  - General Users: Club members or visitors who interact with the platform.
  - Admins (Office Bearers): Responsible for managing the club's operations and content.

# PROJECT REQUIREMENTS

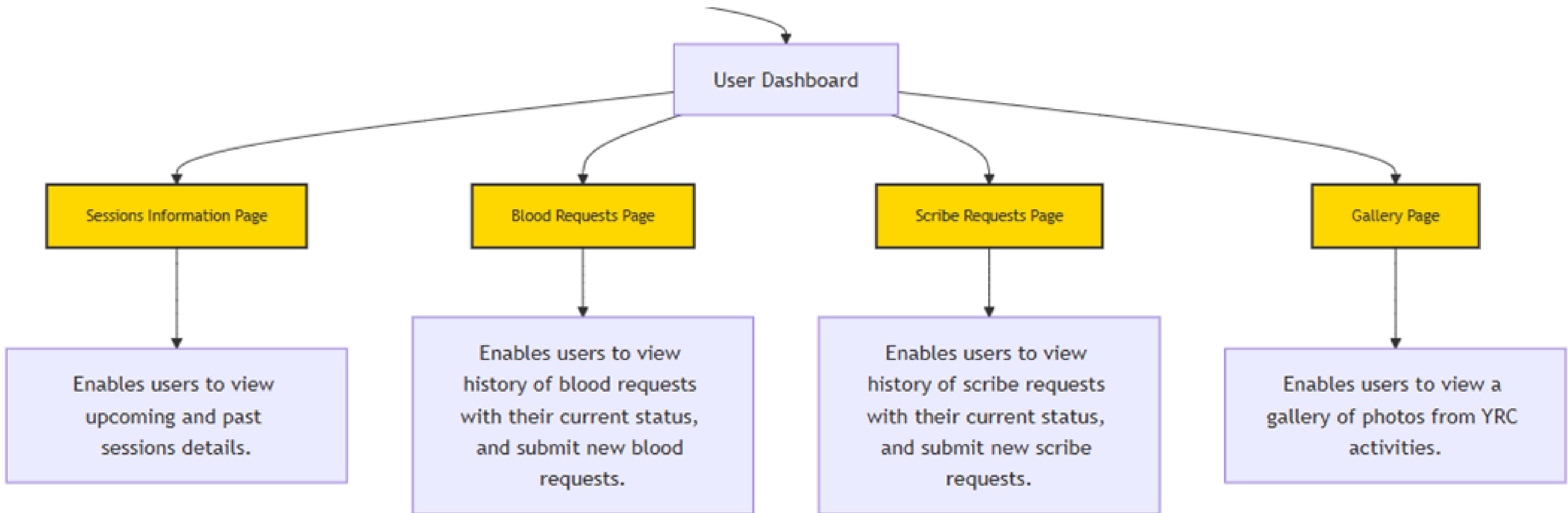
- Users can:
  - View upcoming and past sessions details.
  - View history of blood requests with their current status, and submit new blood requests.
  - View history of scribe requests with their current status, and submit new scribe requests.
  - View a gallery of photos from YRC activities.
- Admins can:
  - View, and manage blood requests.
  - View, and manage scribe-related requests.
  - View, and create session details.

# USE CASE DIAGRAMS

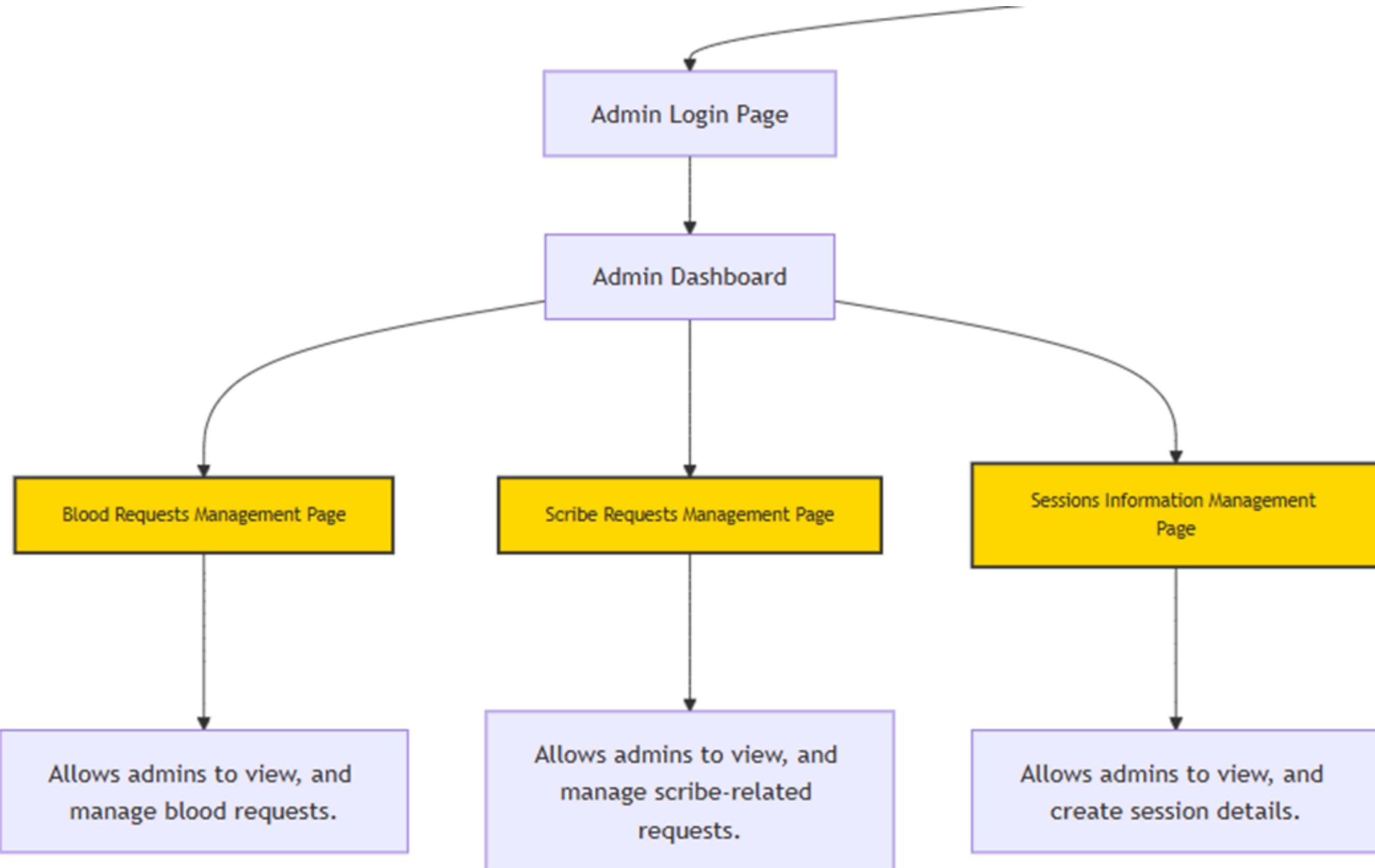


# SYSTEM DESIGN ASPECTS

# ARCHITECTURAL DIAGRAM (VIEW LAYER)



# ARCHITECTURAL DIAGRAM (VIEW LAYER)



# DATABASE DESIGN (MODEL LAYER)

```
MariaDB [(none)]> use wtproj;
Database changed
MariaDB [wtproj]> drop table blood_status;
Query OK, 0 rows affected (0.031 sec)
```

```
MariaDB [wtproj]> show tables;
+-----+
| Tables_in_wtproj |
+-----+
| blood
| scribe_requests
| sessions
+-----+
3 rows in set (0.011 sec)
```

# TECH STACK USED

Front End:

- HTML
- CSS (Bootstrap)
- JavaScript (Vanilla JavaScript, jQuery)

Back End:

- Java
- Java Development Libraries: Java Servlet API
- Web Development Libraries: JSTL
- Database Connectivity Libraries: MySQL Connector/J, JDBC (Java Database Connectivity)

Database:

- MySQL Database  
(MariaDB 10.4.28)

Web Server:

- Apache Tomcat Web Server  
(Version 9.0)

IDE:

- Eclipse IDE  
(Version: 2023-03)

# IMPLEMENTATION AND NOVEL FEATURES

# USER DASHBOARD

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/index.html

MIT YRC

Home Page

Sessions

Request Blood

Request a Scribe

View Gallery

YOUTH RED CROSS  
MADRAS INSTITUTE OF TECHNOLOGY

Volunteers from YRC received  
"BEST VOLUNTEER AWARD"  
from Vice Chancellor of Anna University  
on 75th Republic Day, 2024

## MIT YRC - Health. Service. Friendship.

### ABOUT US

Inspired by **Jean Henry Dunant's** humanitarian efforts during the Battle of Solferino in 1859, the **Young Red Cross (YRC)** aims to be a beacon of compassion and service. Dunant, deeply moved by the suffering of wounded soldiers, envisioned a neutral organization to provide aid to those in need. His vision led to the creation of the **Red Cross** in 1864, a symbol of global relief. At **Madras Institute of Technology (MIT)**, the **YRC chapter** was established in 2002 to extend this mission on campus. Over the years, we've strived to embody the values of **humanity, impartiality, neutrality, and volunteerism**.

*"Humanity is not a privilege, it is a responsibility."*

- *Jean Henry Dunant*

# SESSION INFORMATIONS PAGE

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/UserSessionServlet

## MIT YRC - Health. Service. Friendship.

### UPCOMING SESSIONS

**Free Eye Check-Up Camp**  
To provide free eye check-ups and consultations to the community.  
**Venue:** Placement and Training Hall, Admin Block  
**Start:** 14 Dec 2024, 09:30  
**End:** 14 Dec 2024, 15:30  
**Organizer:** YRC Team  
**Entry Fee:** Rs. 0.0  
**Target Audience:** College Students and Staff, Public  
**Sponsors:** Dr Agarwals Eye Hospital, Chromepet  
**Special Guests:**  
**Additional Info:** Bring previous medical records if available.

**Orphanage Visit and Donation Drive**  
To interact with children at the orphanage and deliver essential items.  
**Venue:** Sunshine Orphanage, Chromepet  
**Start:** 20 Dec 2024, 10:00  
**End:** 20 Dec 2024, 14:00  
**Organizer:** YRC and NSS Teams  
**Entry Fee:** Rs. 0.0  
**Target Audience:** Volunteers and Donors  
**Sponsors:** Government Charitable Trust, Chromepet  
**Special Guests:**  
**Additional Info:** Participants are requested to bring items for donation (clothes, books, etc.).

**Career Guidance Workshop**  
To guide students in making informed career decisions, and provide more insights into civil services and scope.  
**Venue:** Rajam Hall  
**Start:** 25 Dec 2025, 10:00  
**End:** 25 Dec 2025, 12:00  
**Organizer:** YRC Team and CUIC  
**Entry Fee:** Rs. 0.0  
**Target Audience:** Interested MIT Students, open to all years  
**Sponsors:** Mr. Ramesh Prabha, AU Alumnus  
**Special Guests:** Career Guidance Expert, Mr. Ramesh Prabha  
**Additional Info:** Participants will receive free career counseling cheatsheets.

# BLOOD REQUESTS PAGE

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/blood.jsp

## MIT YRC - Health. Service. Friendship.

### BLOOD REQUESTS

Request ID	Patient Name	Age	Gender	Blood Group	Units Needed	Location	Applicant Contact	Applicant Name	Additional Info	Created At	Last Updated	Status
1	Kuzhali	30	Female	O+	2	Chennai	9876543210	Sundari	Routine surgery	06 Dec 2024, 02:36 pm	07 Dec 2024, 10:26 am	confirmed
2	Pooja	45	Female	A+	1	Bangalore	9876543211	Ravi	Emergency transfusion	06 Dec 2024, 02:36 pm	06 Dec 2024, 02:36 pm	confirmed
3	Priya	32	Female	B-	3	Hyderabad	9876543212	Kumar	Cancer treatment	06 Dec 2024, 02:36 pm	06 Dec 2024, 02:41 pm	confirmed
4	Alagu	38	Female	AB+	4	Mumbai	9876543213	Vijay	Accident victim	06 Dec 2024, 02:36 pm	07 Dec 2024, 08:18 am	confirmed

# BLOOD REQUESTS PAGE - REQUEST FORM

The screenshot shows a web browser window titled "Youth Red Cross of MIT" with the URL "localhost:8081/MIT\_YRC/add\_blood.html". The page features a red sidebar on the left with icons for a red cross, a person, a group of people, a heart, and a clipboard. The main content area has a white background with black text and light gray input fields.

**MIT YRC - Health. Service. Friendship.**

**BLOOD REQUEST FORM**

**Patient Name**  
Enter patient's name

**Patient Age**  
Enter patient's age

**Patient Gender**  
 Male  
 Female

**Blood Group**  
Select Blood Group

**Number of Units**  
Enter number of units

**Location**  
Enter location

**Patient Contact Number**  
Enter applicant's contact number

**Attender (Requester) Name**  
Enter applicant's name

**Attender (Requester) Contact Number**  
Enter applicant's contact number

**Additional Information**  
Any other information you would like to provide

**Submit Request**

# SCRIBE REQUESTS PAGE

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/scribe.jsp

## MIT YRC - Health. Service. Friendship.

### SCRIBE REQUESTS

Request ID	Candidate Name	Age	Gender	Exam Name	Exam Start	Exam End	Exam Location	Scribe Preferences	Additional Info	Status	Created At	Last Updated
1	Kuzhali	30	Female	UPSC Preliminary Exam	15 Dec 2024, 09:00 am	15 Dec 2024, 12:00 pm	Chennai	Prefer scribe who is calm and focused	Need help with reading comprehension	Accepted	06 Dec 2024, 02:46 pm	07 Dec 2024, 09:40 am
2	Jenny	45	Female	GRE	20 Dec 2024, 10:00 am	20 Dec 2024, 01:00 pm	Bangalore	Scribe should be proficient in English	Need assistance with writing and reading	Pending	06 Dec 2024, 02:46 pm	06 Dec 2024, 02:46 pm
3	Mano	32	Female	JEE Main	25 Dec 2024, 09:30 am	25 Dec 2024, 12:30 pm	Hyderabad	Prefer scribe who is good at mathematics	Require help with writing equations and formulas	Pending	06 Dec 2024, 02:46 pm	06 Dec 2024, 02:46 pm

# SCRIBE REQUESTS PAGE - REQUEST FORM

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/add\_scribe.html

MIT YRC - Health. Service. Friendship.

SCRIBE REQUEST FORM

Candidate Name  
Enter candidate's name

Candidate Age  
Enter candidate's age

Candidate Gender  
Select gender

Exam Name  
Enter name of the examination

Exam Timings  
dd-mm-yyyy --:--

dd-mm-yyyy --:--

Exam Location  
Enter the exam location

Scribe Preferences  
Provide any preferences for the scribe, such as qualifications or experience

Additional Information  
Any other information you would like to provide

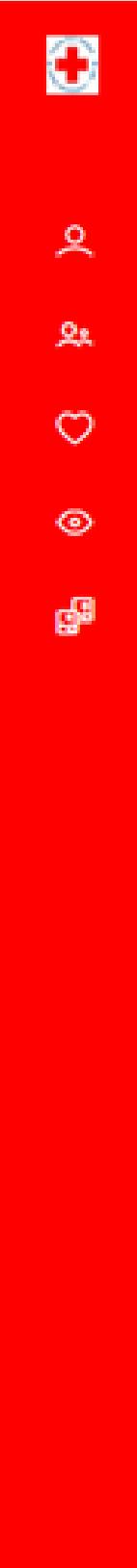
Submit Request

# GALLERY PAGE

Youth Red Cross of MIT    X    +  
localhost:8081/MIT\_YRC/gallery.html

## MIT YRC – Health. Service. Friendship.

### MIT YRC GALLERY





Session: Effective Communication and its importance in social service



First Aid Training



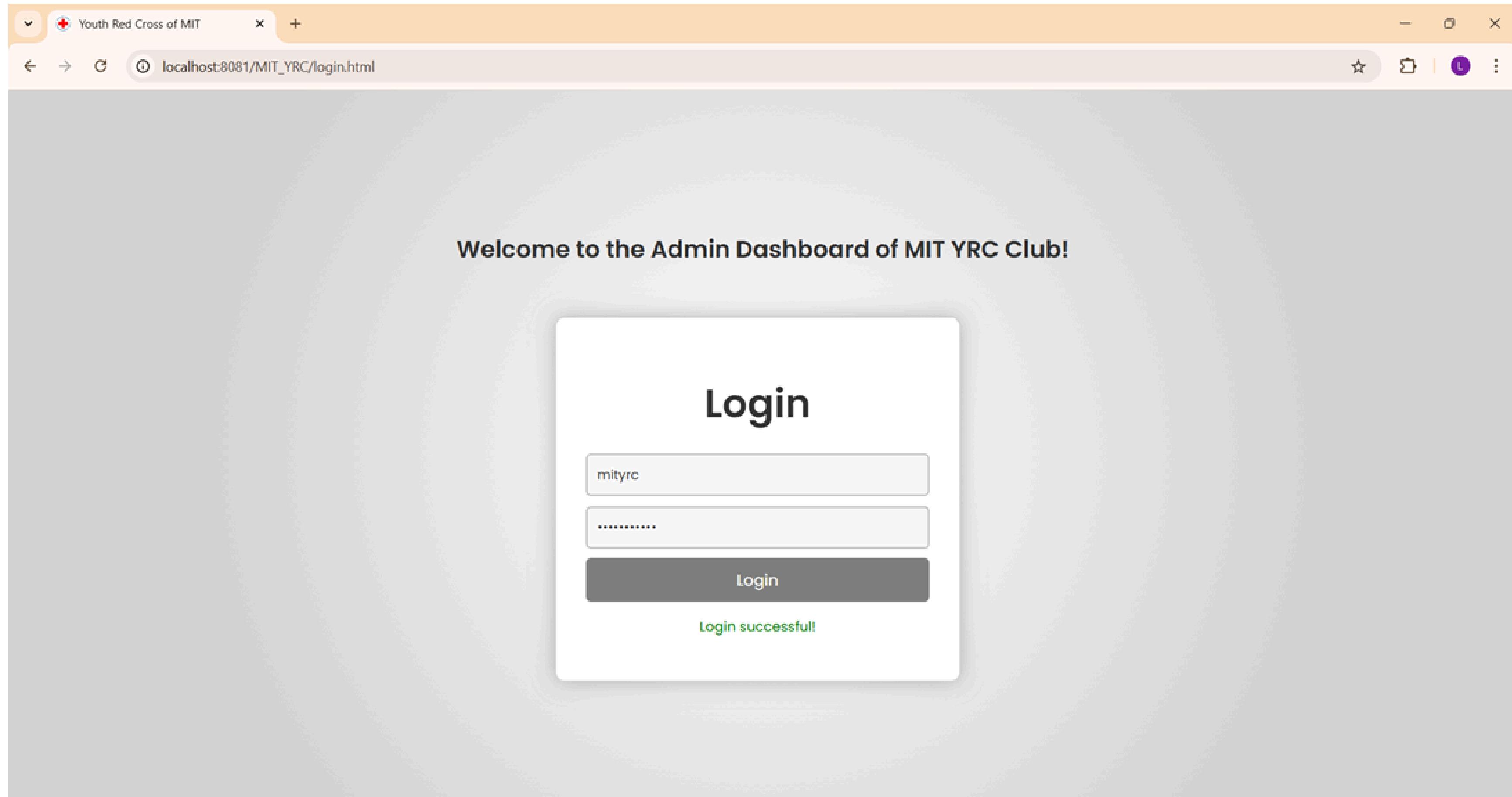
Green Team



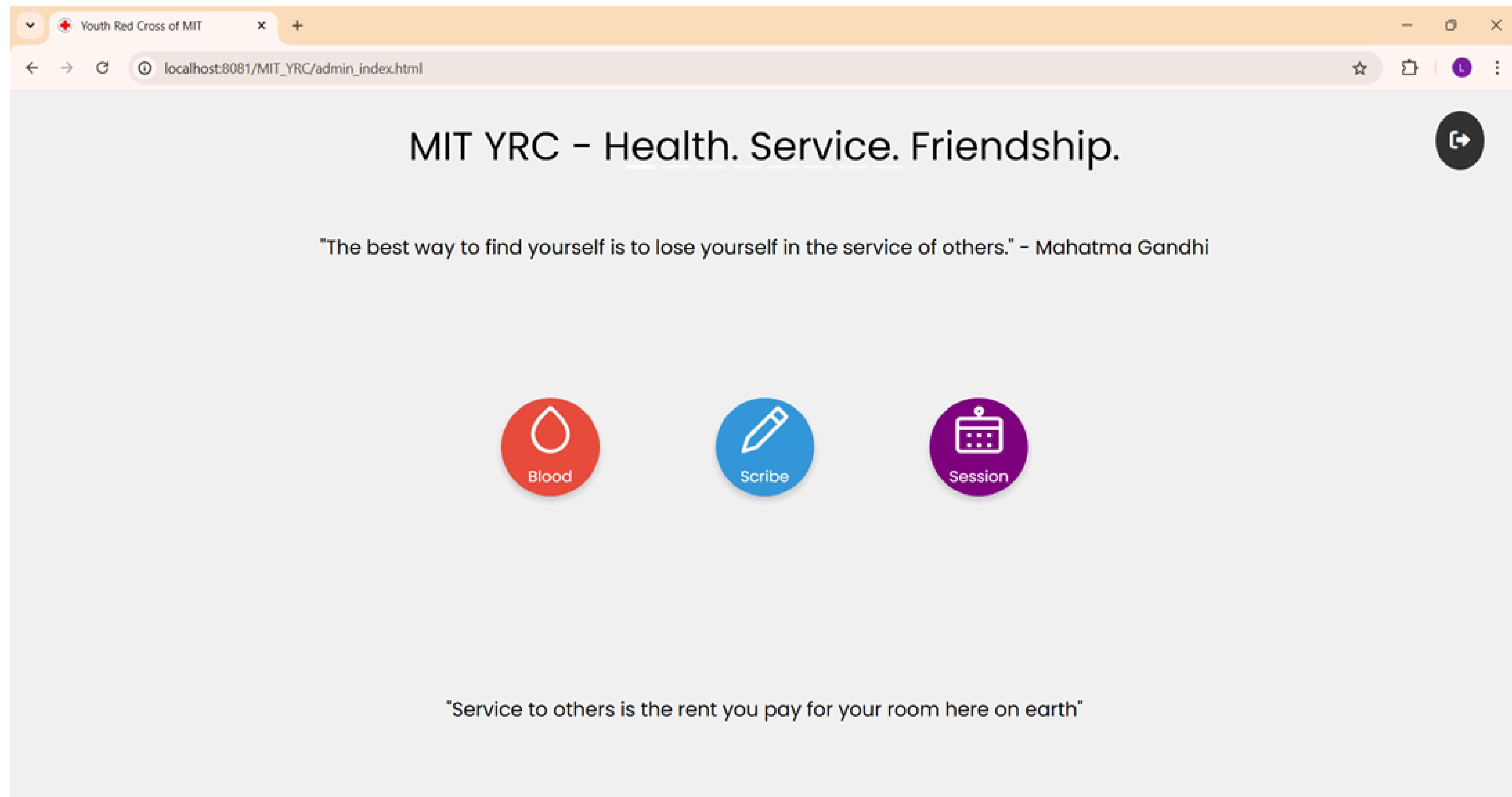




# ADMIN LOGIN PAGE



# ADMIN DASHBOARD



The screenshot shows a web browser window titled "Youth Red Cross of MIT" with the URL "localhost:8081/MIT\_YRC/admin\_index.html". The main content area features a large title "MIT YRC - Health. Service. Friendship." with a circular arrow icon to its right. Below the title is a quote by Mahatma Gandhi: "The best way to find yourself is to lose yourself in the service of others." A row of three circular icons is displayed: a red one labeled "Blood" with a white blood drop icon, a blue one labeled "Scribe" with a white pen icon, and a purple one labeled "Session" with a white calendar icon. At the bottom, there is another quote: "Service to others is the rent you pay for your room here on earth".

MIT YRC - Health. Service. Friendship.

"The best way to find yourself is to lose yourself in the service of others." - Mahatma Gandhi

Blood

Scribe

Session

"Service to others is the rent you pay for your room here on earth"

# BLOOD REQUESTS MANAGEMENT PAGE

The screenshot shows a web browser window titled "Youth Red Cross of MIT" with the URL "localhost:8081/MIT\_YRC/blooddb.jsp". The main content is titled "Blood Request Details".

**Request ID: 7**

- Patient Name: Swetha
- Age: 28
- Gender: Female
- Blood Group: B+
- Units Needed: 1
- Location: Madurai
- Applicant Contact: 9876543216
- Applicant Name: Hari
- Additional Info: Routine transfusion
- Status: pending

**Accept**

**Request ID: 8**

- Patient Name: Ravi
- Age: 60
- Gender: Male
- Blood Group: O+

# SCRIBE REQUESTS MANAGEMENT PAGE

The screenshot shows a web browser window titled "Youth Red Cross of MIT" with the URL "localhost:8081/MIT\_YRC/scribeRequest.jsp". The page displays "Scribe Request Details" and "Pending Scribe Requests". It lists details for Request ID 2 and Request ID 3, including candidate names, ages, genders, exam names, start and end times, locations, scribe preferences, additional info, and status. A green "Accept" button is visible for Request ID 2.

**Scribe Request Details**

**Pending Scribe Requests**

**Request ID: 2**

**Candidate Name:** Jenny

**Age:** 45

**Gender:** Female

**Exam Name:** GRE

**Exam Start:** 20 Dec 2024, 10:00 am

**Exam End:** 20 Dec 2024, 01:00 pm

**Location:** Bangalore

**Scribe Preferences:** Scribe should be proficient in English

**Additional Info:** Need assistance with writing and reading

**Status:** Pending

**Accept**

**Request ID: 3**

**Candidate Name:** Mano

**Age:** 32

# SESSIONS INFORMATION MANAGEMENT PAGE

The screenshot shows a web browser window with the title "Youth Red Cross of MIT" and the URL "localhost:8081/MIT\_YRC/SessionServlet". The main content area is titled "Session Details" and features a section for "UPCOMING SESSIONS" with three cards.

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**Sponsors:** Mr. Ramesh Prabha, AU Alumnus  
**Special Guests:** Career Guidance Expert, Mr. Ramesh Prabha  
**Additional Info:** Participants will receive free career counseling cheatsheets.

# SCRIBE REQUESTS MANAGEMENT PAGE - CREATION FORM

Youth Red Cross of MIT

localhost:8081/MIT\_YRC/admin\_session.jsp

## Session Post - Creation Form

Session Title

Enter the session title

Session Purpose

Describe the purpose of the session

Venue

Enter the venue

Session Timings

dd-mm-yyyy --:--

dd-mm-yyyy --:--

Target Audience

E.g., volunteers, public, visually challenged, etc.

Entry Fee (if any)

Enter the entry fee amount (0 if free)

Organizers

Enter the name of the organizer(s) (collaborators, if any)

Sponsors (if any)

Mention sponsors if applicable

Special Guests (if any)

List any special guests for the session

Additional Information

Any additional information about the session

Create Post

# DATABASE DESIGN

wtproj database

blood table

Table blood

scribe\_requests

sessions

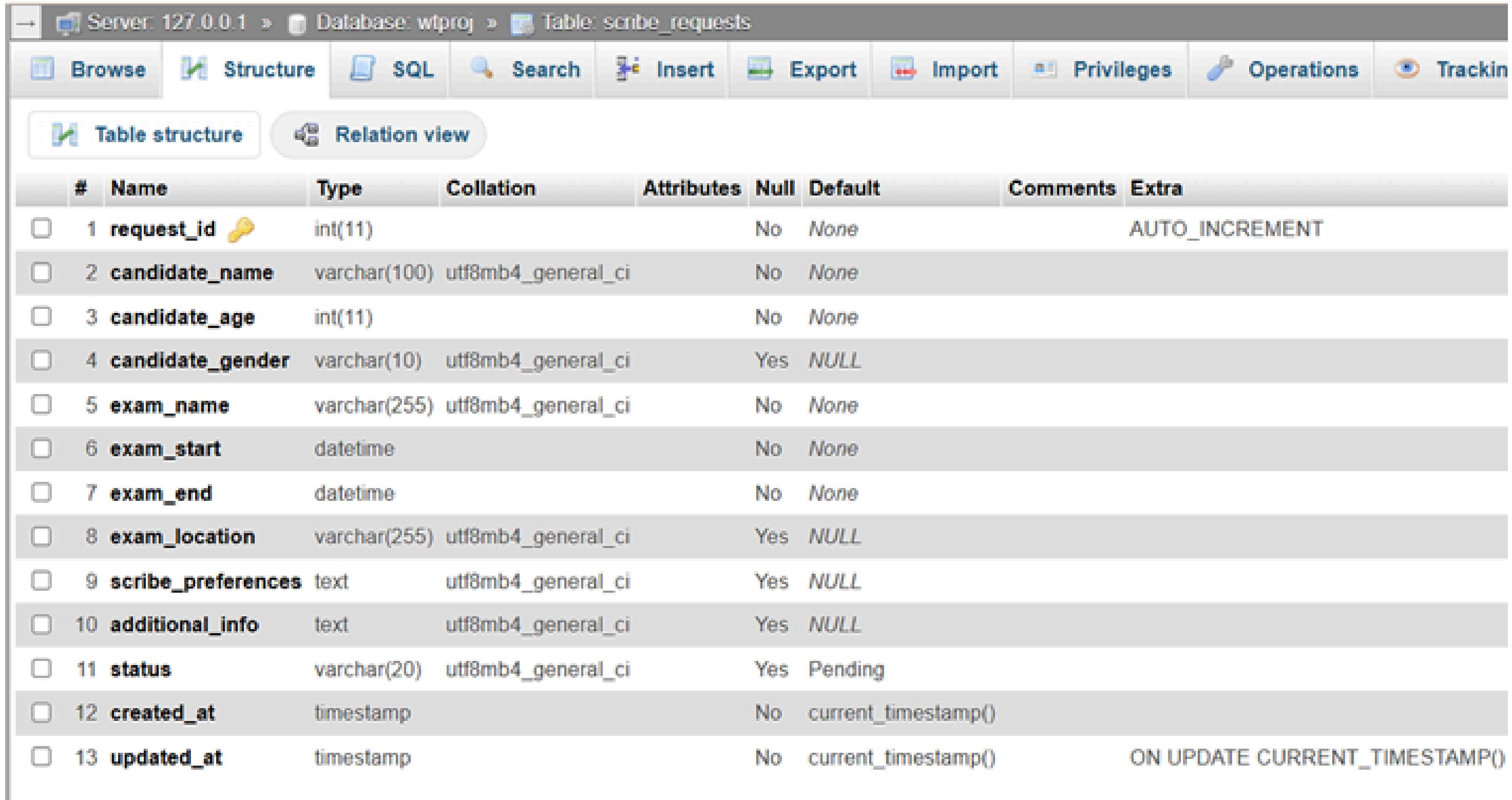
3 tables

The screenshot shows the 'Table' section of phpMyAdmin with the 'blood' table selected. The top navigation bar shows 'Server: 127.0.0.1 > Database: wtproj > Table: blood'. Below the navigation are tabs for 'Browse', 'Structure' (which is active), 'SQL', 'Search', 'Insert', 'Export', 'Import', 'Privileges', 'Operations', and 'Tracking'. A sub-menu for 'Table structure' is open. The main area displays the table structure with the following columns:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	request_id	int(11)			No	None		AUTO_INCREMENT
2	patient_name	varchar(100)	utf8mb4_general_ci		No	None		
3	patient_age	int(11)			No	None		
4	patient_gender	varchar(10)	utf8mb4_general_ci		Yes	NULL		
5	blood_group	varchar(10)	utf8mb4_general_ci		Yes	NULL		
6	num_units	int(11)			No	None		
7	location	varchar(255)	utf8mb4_general_ci		Yes	NULL		
8	applicant_contact	varchar(15)	utf8mb4_general_ci		Yes	NULL		
9	applicant_name	varchar(100)	utf8mb4_general_ci		Yes	NULL		
10	additional_info	text	utf8mb4_general_ci		Yes	NULL		
11	created_at	timestamp			No	current_timestamp()		
12	updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()
13	status	varchar(20)	utf8mb4_general_ci		Yes	NULL		

# DATABASE DESIGN

## scribe\_requests table



The screenshot shows the phpMyAdmin interface with the following details:

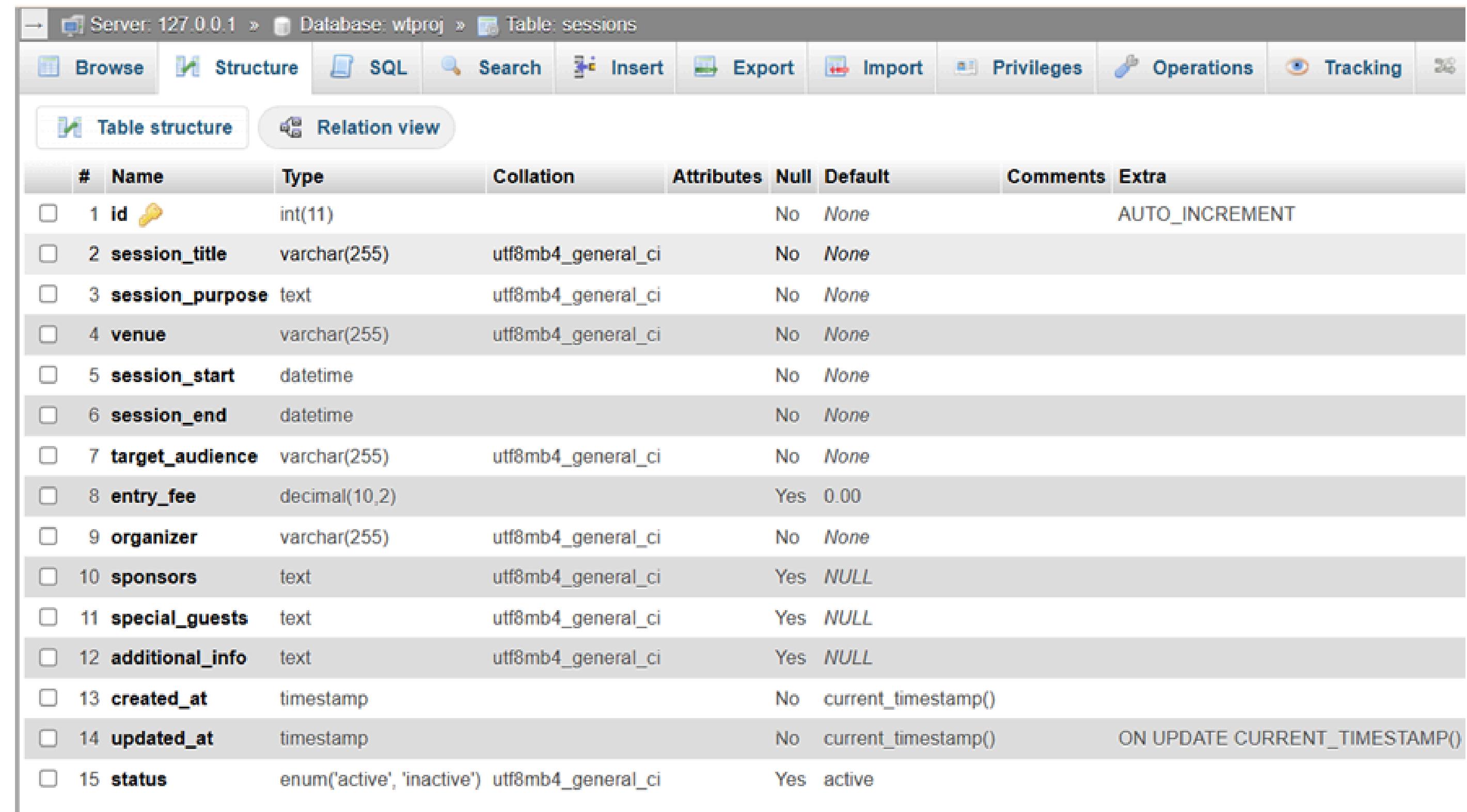
- Server: 127.0.0.1
- Database: wtproj
- Table: scribe\_requests

The "Structure" tab is selected. Below it, the "Table structure" tab is also selected.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	request_id	int(11)			No	None		AUTO_INCREMENT
2	candidate_name	varchar(100)	utf8mb4_general_ci		No	None		
3	candidate_age	int(11)			No	None		
4	candidate_gender	varchar(10)	utf8mb4_general_ci		Yes	NULL		
5	exam_name	varchar(255)	utf8mb4_general_ci		No	None		
6	exam_start	datetime			No	None		
7	exam_end	datetime			No	None		
8	exam_location	varchar(255)	utf8mb4_general_ci		Yes	NULL		
9	scribe_preferences	text	utf8mb4_general_ci		Yes	NULL		
10	additional_info	text	utf8mb4_general_ci		Yes	NULL		
11	status	varchar(20)	utf8mb4_general_ci		Yes	Pending		
12	created_at	timestamp			No	current_timestamp()		
13	updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()

# DATABASE DESIGN

## sessions table



The screenshot shows the phpMyAdmin interface for the 'sessions' table in the 'wlproj' database. The table has 15 columns:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>id</b> 	int(11)			No	None		AUTO_INCREMENT
2	<b>session_title</b>	varchar(255)	utf8mb4_general_ci		No	None		
3	<b>session_purpose</b>	text	utf8mb4_general_ci		No	None		
4	<b>venue</b>	varchar(255)	utf8mb4_general_ci		No	None		
5	<b>session_start</b>	datetime			No	None		
6	<b>session_end</b>	datetime			No	None		
7	<b>target_audience</b>	varchar(255)	utf8mb4_general_ci		No	None		
8	<b>entry_fee</b>	decimal(10,2)			Yes	0.00		
9	<b>organizer</b>	varchar(255)	utf8mb4_general_ci		No	None		
10	<b>sponsors</b>	text	utf8mb4_general_ci		Yes	NULL		
11	<b>special_guests</b>	text	utf8mb4_general_ci		Yes	NULL		
12	<b>additional_info</b>	text	utf8mb4_general_ci		Yes	NULL		
13	<b>created_at</b>	timestamp			No	current_timestamp()		
14	<b>updated_at</b>	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()
15	<b>status</b>	enum('active', 'inactive')	utf8mb4_general_ci		Yes	active		

# NOVEL FEATURES

- AJAX Requests for Asynchronous Data Loading
- Upcoming and Past Sessions Segregation
- Form Validation
- Sidebar and Buttons for Navigation
- Responsive Design

## POTENTIAL FUTURE ENHANCEMENTS

- Transition to a Single-Page Web Application (SPA)
- User Authentication and Personalization
- Real-Time Data Implementation
- Integration of Real-Time Notifications
- Integration with Social Media
- Data Analytics Dashboard
- Feedback Mechanism
- Testing and Quality Assurance
- Deployment to a Live Server
- Mobile App Development

# FINAL THOUGHTS

- Transition to a Single-Page Web Application (SPA)
- User Authentication and Personalization
- Real-Time Data Implementation
- Integration of Real-Time Notifications
- Integration with Social Media
- Data Analytics Dashboard
- Feedback Mechanism
- Testing and Quality Assurance
- Deployment to a Live Server
- Mobile App Development

# THANK YOU!