

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)
DEPARTMENT OF COMPUTER APPLICATIONS
MAIN PROJECT
SCRUM BOOK

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Name of the Guide: Ms. Senu Abi

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Project Title: Panchayat Specific Charity Fund Collection Through Entertainment

GitHub ID: https://github.com/safabeegum/CHARITY_MAIN-PROJECT

Sprint Release: 1**Date: 10/01/2025****Description of Work:**

In the first scrum release of the Panchayat Specific Charity Fund Collection Through Entertainment project, the primary focus was on finalizing the project topic, defining objectives, and gathering relevant data. This phase involved structuring the project scope, identifying key modules, and outlining the platform's core functionalities. Discussions were held on integrating gaming with charity, ensuring financial transparency, and addressing potential challenges like secure payment processing and real-time updates. Initial role definitions for normal users, admins, and social workers were also considered. This sprint primarily focused on research and planning, laying a strong foundation for the next phase, where development will begin with user registration, payment integration, UI/UX enhancements, and the implementation of core platform features.

Remarks:**Name and Signature of the Guide****Ms. Senu Abi****Name and Signature of the Scrum Master****Ms. Anju L**

Sprint Release: 2**Date: 17/01/2025****Description of Work:**

Sprint 2 focuses on an in-depth system study and research paper review to strengthen the foundational understanding of gamified charity platforms, community-based fundraising, and entertainment-driven user engagement. This phase involves analysing existing solutions, identifying functional and technical gaps, and refining the project's approach. The primary objectives include conducting a comprehensive literature review on gamification in fundraising, understanding the challenges in digital charity systems, and selecting the most suitable technologies for platform development and user management. The study explores various reward-based models, such as leaderboard-driven engagement and wallet-based incentive systems, to assess their effectiveness in boosting user participation and trust in donation flows.

Special attention is given to localized fund allocation strategies, focusing on how panchayat-level needs can be prioritized transparently. Research papers and system reviews highlighting community-driven platforms, fraud prevention mechanisms, and real-time reporting features are examined to ensure reliability and accountability. Additionally, the sprint involves evaluating platforms and datasets that support digital wallets, user role management and performance-based reward distribution. User-centric features like secure login, game-based contribution methods, and transparent fund tracking dashboards are studied to enhance platform usability and credibility.

By the end of this sprint, the research findings and system study will guide the finalization of the platform architecture, ensuring that the charity-through-entertainment model is built using best practices and innovative strategies. The insights gained will contribute to optimizing user interaction, community impact, and overall platform effectiveness in promoting localized charitable efforts through gamified experiences.

Remarks:**Name and Signature of the Guide****Ms. Senu Abi****Name and Signature of the Scrum Master****Ms. Anju L**

Sprint Release: 3**Date: 07/02/2025****Description of Work:**

In Sprint 3, I focused on integrating core interactive and administrative functionalities that significantly elevate the platform's usability and transparency. One of the key accomplishments during this sprint was the successful implementation of the Registration and Login Module, which allows seamless onboarding for all three roles: Normal Users, Admins, and Social Workers. Secure login, password encryption, and session handling ensure both data protection and role-based access control.

Another major milestone was the development of the Game Management Module, where users can now participate in interactive charity-driven games like Quiz and Tic Tac Toe. These games are directly tied to donation triggers, promoting engagement while supporting social causes. I also introduced a leaderboard system to showcase daily top performers, which not only fosters healthy competition but also ensures that game-based donations are fairly rewarded.

To enhance accountability, I integrated the Payment and Transaction Modules, enabling secure donations via payment gateways. Every transaction is now recorded in real time and made viewable in the user's transaction history for transparency. Additionally, a backend system was created for Admins to track total funds raised, distributed, and available.

Lastly, an Admin Dashboard was set up for centralized monitoring—admins can now oversee charity requests, donation records, user activity, and content uploads. These enhancements bring the platform closer to being a transparent, community-driven solution for gamified fundraising, fostering both user engagement and localized impact.

Remarks:**Name and Signature of the Guide****Ms. Senu Abi****Name and Signature of the Scrum Master****Ms. Anju L**

Sprint Release: 4**Date: 21/02/2025****Description of Work:**

In Sprint 4, I focused on integrating modules that enhance transparency, engagement, and communication within the platform. A major milestone was the implementation of the Payment Module, which allows users to make secure transactions through integrated payment gateways. This ensures smooth and trustworthy processing of donations and game participation fees, while also maintaining detailed transaction history logs for each user.

Another key component delivered during this sprint was the Game Donation Module, where users can choose to donate their earned rewards directly to specific charities listed on the platform. This feature bridges gaming and real-time social impact, empowering users to contribute to verified charitable needs posted by social workers.

I also completed the Transaction Module, which tracks fund flow across the platform and generates detailed financial reports to ensure full transparency for admins and users alike. This lays the groundwork for long-term trust and accountability within the system.

Additionally, the Emergency Alert Module was developed to notify users via email in the event of urgent public announcements or verified emergencies in their local panchayat. This not only enhances the platform's social utility but also ensures users are kept informed of critical updates.

By the end of Sprint 4, the platform had evolved into a more secure, transparent, and community-focused space, aligning well with the goal of combining entertainment with localized charitable engagement.

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Sprint Release: 4**Date: 28/03/2025****Description of Work:**

In Sprint 5, development was centred around implementing the Leadership and Reward Module and the Performance-Based Ranking System, designed to boost user engagement through gamified incentives.

The Leadership and Reward Module tracks user activity across all integrated games (Quiz, Coding, Snake, Hangman, and Tic Tac Toe), calculates scores, and generates a daily leaderboard. Based on this leaderboard, top scorers are rewarded with 20% of ₹2 (i.e., ₹0.40) per win, which is automatically credited to their in-platform wallet. This reward can either be withdrawn or donated to verified charities, reinforcing the platform's core mission of blending entertainment with social good.

The Reward System also includes month-wise ranking reports, allowing users and admins to view progress over time and identify consistently high-performing contributors. This feature encourages continuous participation while fostering a spirit of healthy competition among users.

Additionally, department-wise or region-wise (panchayat-specific) admin panels were equipped to track engagement trends and review top users. Admins can analyse wallet activities, reward histories, and overall game performance to offer tailored incentives or highlight active contributors during events or campaigns.

By the end of this sprint, the platform gained a more dynamic and rewarding ecosystem, encouraging regular participation and making the user experience more interactive and purpose-driven.

Remarks:**Name and Signature of the Guide****Name and Signature of the Scrum Master****Ms. Senu Abi****Ms. Anju L**

Date: 10/03/2025

PRODUCT BACKLOG
1. Registration and Login Module <ul style="list-style-type: none">• Implement user registration and authentication system.• Enable role-based access control for Normal Users, Admins, and Social Workers.• Develop secure login and password management features.• Ensure easy registration for new users.
2. Charity Management Module <ul style="list-style-type: none">• Allow social workers to post and verify charitable needs.• Implement a verification and approval system for charity requests.• Provide real-time updates on charity campaigns and their progress.
3. Content Management Module <ul style="list-style-type: none">• Implement a content creation and approval workflow.• Develop an easy-to-use admin dashboard for content management.
4. Game Management Module <ul style="list-style-type: none">• Develop functionality for creating and managing charity-based games.• Enable real-time monitoring and game data tracking.
5. Payment Module <ul style="list-style-type: none">• Integrate payment gateways for seamless transactions.• Ensure secure processing of donations and payments.• Implement a tracking system for user dues and transaction history.
6. Game Donation Module <ul style="list-style-type: none">• Implement donation tracking and reporting features.• Enable users to select specific charities for their donations.
7. Transaction Module <ul style="list-style-type: none">• Develop a real-time fund tracking system to maintain financial transparency.• Generate detailed financial reports for platform accountability.
8. Leadership and Reward Module <ul style="list-style-type: none">• Develop a reward system based on leaderboard rankings to encourage user participation.• Ensure transparent reward distribution for top-performing users.
9. Payment Receipt and Email Notifications Module <ul style="list-style-type: none">• Generates downloadable receipts after successful payments.

- Sends the email after successful payments.
- User receives an emergency alert mail in case of any public alert.

10. Emergency Alert Module

- Sends instant alerts to users in critical situations.
- Provides an alert email to the users.

11. Announcement Module

- Posts updates on local body issues, events, or important events notices.
- Helps users to know about events happening in the local body and other public issues.

12. Report and Analytics Module

- Provides detailed insights and analytics on platform activities.
- Helps users, social workers and admin to review on the fund and transactions.

13. Feedback and Review Module

- Allow users to submit ratings and reviews for games and charitable causes.
- Implement a feedback collection and reporting system for continuous improvement.

Name and Signature of the Guide

Ms. Senu Abi

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Ms. Anju L

Date: 10/03/2025

DATABASE & UI DESIGN**DATABASE****1. USER TABLE**

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for user.
name	String	User name
username	String	User login name
address	String	User address
email	String	User email id
phone	String	User phone number
ward_no	Integer	User ward number
ward_name	String	User ward name
password	String	User account password

2. SOCIAL WORKERS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for social worker.
name	String	Social worker name
email	String	Social worker email id
address	String	Social worker address
phone	String	Social worker phone number
password	String	Social worker account password

3. ADMIN TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for admin.
email	String	Admin email id
password	String	Admin account password

4. POSTS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for post.
title	String	Post title
description	String	Post description
name	String	Name of the person
age	Integer	Age of the person
purpose	String	Purpose of the post
contact	String	Contact of the person
image	String	Image of relevant documents
requiredAmount	String	Required amount of donation
accountName	String	Bank account name of person
accountNo	String	Bank account number of person
ifsc	String	Bank IFSC code
bankName	String	Bank name of person
currentDonationsReceived	String	Donation amount received
status	String	Status of post
rejectionReason	String	Reason for post rejection
createdAt	Date	Time of post creation

5. GAME DONATIONS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for game donation.
userId	String	User ID of user
amount	String	Default amount for game charity
method	String	Method of payment
status	String	Status of payment
createdAt	Date	Time of payment

6. PLATFORM EARNINGS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for platform earning.
amount	String	Amount received
receivedAt	Date	Date of amount received

7. REWARD TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for reward.
userId	String	User ID of user
upiId	String	UPI ID of the user
amount	String	Amount as reward
claimedAt	Date	Date of claiming reward

8. ANNOUNCEMENT TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for announcement.
topic	String	Announcement Topic
likes	String	Number of likes received
createdAt	Date	Date of announcement creation

9. PAYMENTS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for payment.
userId	String	User ID of user
postId	String	Post ID of particular post
amount	String	Amount for charity
method	String	Method of payment
status	String	Status of payment
createdAt	Date	Time of payment

10. EMERGENCY TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for alert.
title	String	Emergency alert title
description	String	Emergency alert description
location	String	Location of the alert
ward_no	Integer	Ward number of alert
alertType	String	Type of alert
createdAt	Date	Date of alert created

11. TRANSACTIONS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for transaction.
postId	String	Post ID of particular post
requiredAmount	String	Required amount of donation
accountName	String	Bank account name of person
accountNo	String	Bank account number of person
ifsc	String	Bank IFSC code
bankName	String	Bank name of person
status	String	Status of transaction
createdAt	Date	Date of transaction

12. WALLETS TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for wallet.
userId	String	User ID of user
balance	String	Balance amount in the wallet
transactions	String	Type of transaction
amount	String	Amount in wallet
date	Date	Date of amount added

13. REVIEW TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for review.
userId	String	User ID of user
review	String	Review about the application
rating	String	Rating about the application
postedDate	Date	Date of review added

14. TIC TAC TOE TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for tic tac toe.
score	String	User ID of user
createdAt	Date	Date of review added

15. SNAKE GAME TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for snake game.
score	String	User ID of user
createdAt	Date	Date of review added

16. QUIZ TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for quiz.
score	String	User ID of user
createdAt	Date	Date of review added

17. HANGMAN GAME TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for hangmen.
score	String	User ID of user
createdAt	Date	Date of review added

18. GUESS THE NUMBER GAME TABLE

Field Name	Data Type	Description
_id	ObjectId	Unique identifier for game.
score	String	User ID of user
createdAt	Date	Date of review added

UI DESIGN**1. LOGIN PAGE**

LOGIN PAGE

Email

Password

LOGIN

REGISTER

2. REGISTER PAGE

REGISTER PAGE

Name

Address

Ward Number

Ward Name

Email

Password

REGISTER

3. PAYMENT PAGE

PAYMENT PAGE

Card Holder Name

Card Number

Expiry Date

CVV*

4. ADD EMERGENCY ALERT PAGE

ADD EMERGENCY ALERT

TITLE

DESCRIPTION

LOCATION

REASON

WARD NUMBER

No Alerts Available Currently

Name and Signature of the Guide**Name and Signature of the Scrum Master****Ms. Senu Abi****Ms. Anju L**

Date: 10/03/2025

TESTING AND VALIDATION

1. Registration and Login Module

KEY FEATURES IMPLEMENTED:

- User registration with role-based access for Normal Users, Admins, and Social Workers.
- Secure login with hashed passwords and password recovery.
- Session handling and validation with user feedback.

TESTING & VALIDATION:

- Verified role-based login functionality across all user types.
- Ensured secure password handling using encryption methods.
- Conducted UI testing for registration flow and error handling.
- Cross-platform and cross-browser compatibility verified.

2. Charity Management Module

KEY FEATURES IMPLEMENTED:

- Charity request posting and approval system for Social Workers.
- Admin-level request verification with status updates.
- Real-time campaign tracking dashboard.

TESTING & VALIDATION:

- Verified charity submission and approval flow.
- Ensured accurate display of campaign statuses.
- Tested role-based access to post, view, and manage requests.

3. Content Management Module

KEY FEATURES IMPLEMENTED:

- Admin dashboard for managing platform content.
- Workflow for content creation, review, and approval.

TESTING & VALIDATION:

- Verified content publishing pipeline from draft to approval.
- Conducted testing on content update and deletion flows.
- Ensured responsive UI and secure access control.

4. Game Management Module

KEY FEATURES IMPLEMENTED:

- Creation and configuration of charity-driven games.
- Real-time tracking of game statistics and performance.

TESTING & VALIDATION:

- Validated game initiation, user interaction, and result logging.
- Ensured accurate data tracking for gameplay sessions.
- Tested error handling for disconnections or invalid actions.

5. Payment Module

KEY FEATURES IMPLEMENTED:

- Seamless payment gateway integration.
- Secure processing for donations and game payments.
- Transaction history tracking.

TESTING & VALIDATION:

- Verified multiple payment scenarios using test accounts.
- Ensured encrypted data flow and secure token handling.
- Tested transaction logging and rollback on failure.

6. Game Donation Module

KEY FEATURES IMPLEMENTED:

- Donation selection tied to specific charities.
- Transparent reporting of donation history.

TESTING & VALIDATION:

- Verified charity linking for user donations.
- Ensured database updates for each donation.
- Cross-verified donation logs and UI display accuracy.

7. Transaction Module

KEY FEATURES IMPLEMENTED:

- Real-time tracking of all financial activities.
- Generation of platform-wide financial reports.

TESTING & VALIDATION:

- Audited transactions for integrity and consistency.

- Verified report generation with correct formatting and values.
- Stress-tested data retrieval with large transaction volumes.

8. Leadership and Reward Module

KEY FEATURES IMPLEMENTED:

- Leaderboard ranking system.
- Reward distribution to top users via wallet system.

TESTING & VALIDATION:

- Verified accurate score calculations and leaderboard updates.
- Tested automated reward assignment and wallet balance update.
- Ensured fairness and anti-cheating mechanisms.

9. Payment Receipt and Email Notifications Module

KEY FEATURES IMPLEMENTED:

- Downloadable PDF receipts for every transaction.
- Automated email notifications for payments and alerts.

TESTING & VALIDATION:

- Verified receipt generation accuracy and file integrity.
- Ensured timely email delivery with proper formatting.
- Tested alert emails for both real and simulated emergencies.

10. Emergency Alert Module

KEY FEATURES IMPLEMENTED:

- Real-time alert broadcasting system.
- Email alerts to users during critical events.

TESTING & VALIDATION:

- Conducted test alerts and monitored delivery time.
- Verified alert coverage across user roles.
- Checked scalability for multiple concurrent alerts.

11. Announcement Module

KEY FEATURES IMPLEMENTED:

- Admin-posted updates on local events and issues.
- User interface to view announcements chronologically.

TESTING & VALIDATION:

- Verified announcement posting, editing, and deletion.
- Tested notification pop-ups and real-time updates.
- Ensured announcement visibility by all users.

12. Reports and Analytics Module**KEY FEATURES IMPLEMENTED:**

- Visual analytics on funds, user participation, and transactions.
- Insightful dashboards for admins, users, and social workers.

TESTING & VALIDATION:

- Tested data visualizations for accuracy and refresh rates.
- Verified chart responsiveness across devices.
- Validated access levels for different user roles.

13. Feedback and Review Module**KEY FEATURES IMPLEMENTED:**

- Ratings and reviews for games and charity campaigns.
- Admin interface to review and respond to feedback.

TESTING & VALIDATION:

- Verified feedback submission and moderation workflows.
- Ensured accurate data linking between reviews and entities.
- UI tested for feedback forms on desktop and mobile.

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Date: 10/03/2025

DETAILS OF VERSIONS			
Version	Release Date	Description	Comments
0.1.0	Jan 10, 2025	Initial Project Setup	<ul style="list-style-type: none"> - Project structure initialized - Frontend-Backend architecture setup - Module planning and documentation started
0.2.0	Jan 18, 2025	Registration & Login Module	<ul style="list-style-type: none"> - Secure user registration and authentication implemented - Role-based access - Session handling and encrypted password storage
0.3.0	Jan 25, 2025	Charity Management & Content Management	<ul style="list-style-type: none"> - Social workers can post charity needs - Admin approval flow enabled - Admin dashboard for content posting and updates
0.4.0	Feb 1, 2025	Game Management Module	<ul style="list-style-type: none"> - Game engine setup for Quiz and Tic Tac Toe - Admin control to publish/edit game details - Real-time tracking of game plays and outcomes
0.5.0	Feb 10, 2025	Payment & Transaction Modules	<ul style="list-style-type: none"> - Payment gateway integrated - Secure donation flow enabled - Real-time transaction logs and history view
0.6.0	Feb 18, 2025	Leadership & Reward Module	<ul style="list-style-type: none"> - Daily top player reward calculation implemented - Wallet system prototype for storing winnings - Transparent reward distribution tracking
0.7.0	Feb 28, 2025	Emergency Alert & Announcement Modules	<ul style="list-style-type: none"> - Email alert system triggered for emergencies - Admin interface to post public announcements - Verified mail delivery system in place
0.8.0	Mar 10, 2025	Donation & Receipt Modules	<ul style="list-style-type: none"> - Game-based donation allocation system - Receipt generation after each transaction - Email receipts sent post-payment confirmation
0.9.0	Mar 20, 2025	Report & Feedback Modules + Testing Phase	<ul style="list-style-type: none"> - Data visualization and report generation - Feedback & review system enabled - Major bug fixes & performance tuning
1.0.0	Apr 5, 2025	Official Stable Release	<ul style="list-style-type: none"> - Final deployment with all 13 modules functional - Full system documentation prepared - Optimized for live use with panchayat-specific data - Educational & onboarding content added

Name and Signature of the Guide

Name and Signature of the Scrum Master

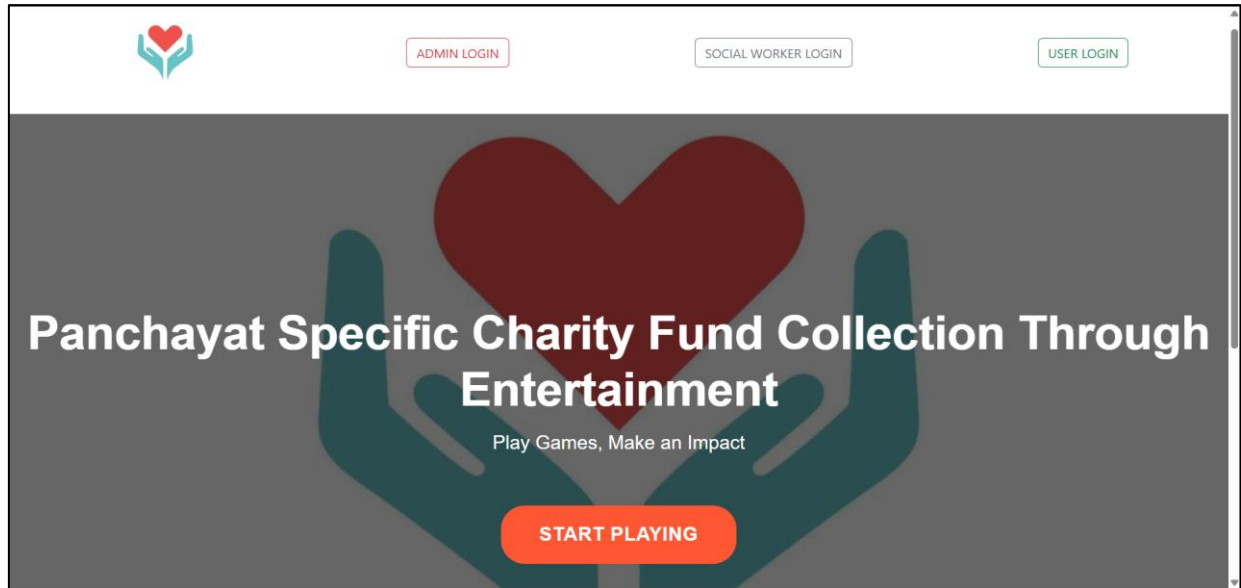
Ms. Senu Abi

Ms. Anju L

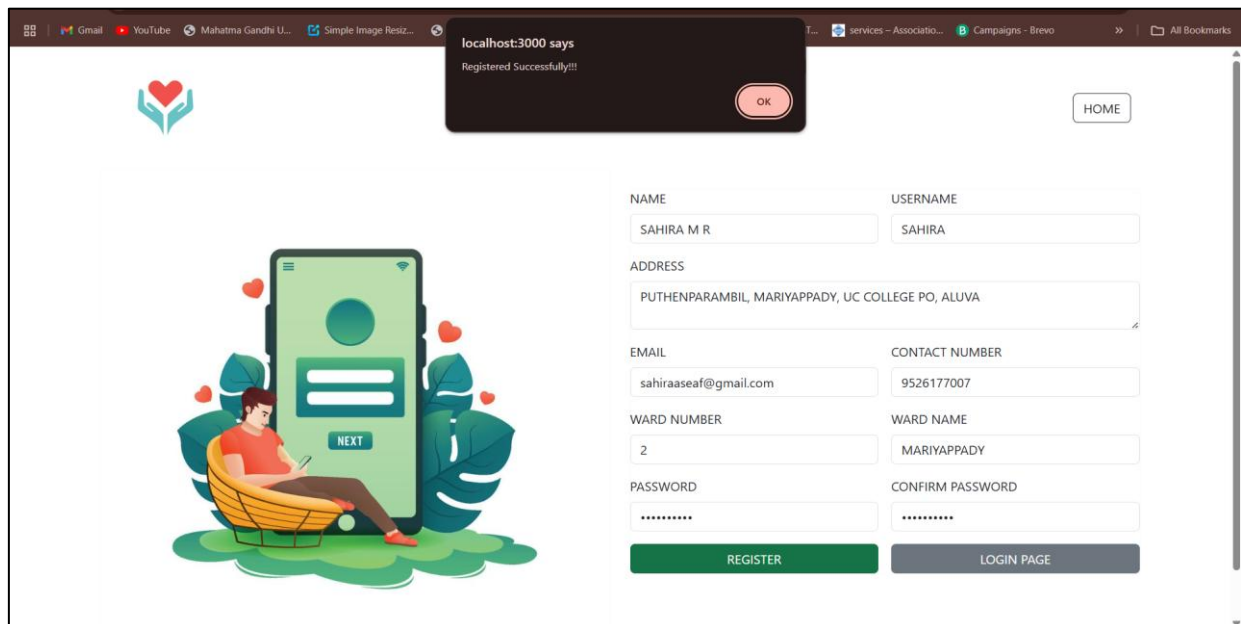
Date: 10/03/2025

SCREENSHOTS

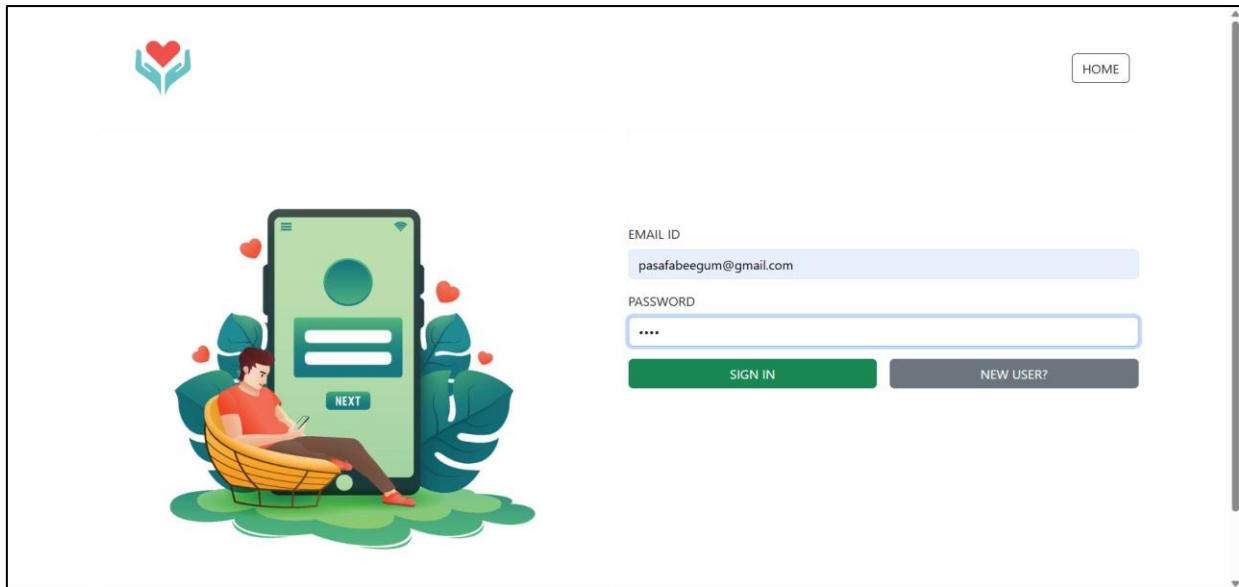
HOME PAGE



REGISTER PAGE

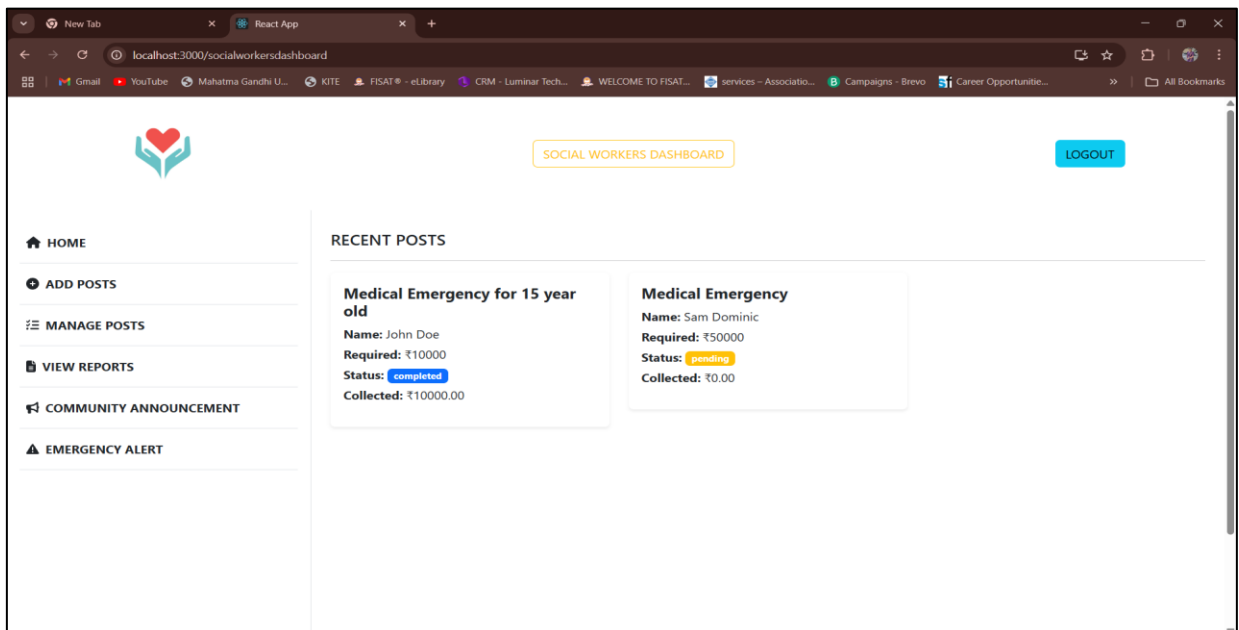


LOGIN PAGE



The login page features a logo with a heart and hands at the top left and a 'HOME' button at the top right. On the left, there is an illustration of a person sitting in a chair next to a large smartphone displaying a login form. The main login form on the right includes fields for 'EMAIL ID' (containing 'pasafabeegum@gmail.com') and 'PASSWORD' (masked with dots). Below these fields are two buttons: 'SIGN IN' and 'NEW USER?'.

SOCIAL WORKER DASHBOARD



The dashboard is viewed through a browser window with the URL 'localhost:3000/socialworkersdashboard'. It features a logo with a heart and hands at the top left, a 'SOCIAL WORKERS DASHBOARD' title at the top center, and a 'LOGOUT' button at the top right. A sidebar on the left contains navigation links: HOME, ADD POSTS, MANAGE POSTS, VIEW REPORTS, COMMUNITY ANNOUNCEMENT, and EMERGENCY ALERT. The main content area, titled 'RECENT POSTS', displays two cards. The first card is for 'Medical Emergency for 15 year old' by John Doe, with a required amount of ₹10000, a status of 'completed', and a collected amount of ₹10000.00. The second card is for 'Medical Emergency' by Sam Dominic, with a required amount of ₹50000, a status of 'pending', and a collected amount of ₹0.00.

Post Title	Name	Required	Status	Collected
Medical Emergency for 15 year old	John Doe	₹10000	completed	₹10000.00
Medical Emergency	Sam Dominic	₹50000	pending	₹0.00

ADD POST

localhost:3000 says
Post Added Successfully! Your post is waiting for admin approval.

Medical Emergency

Title: Medical Emergency for 60 year old

Name: Sam Dominic

Age: 60

Location: Aluva

Contact Number: 98475 15478

Required Amount (Rs): 50000

Purpose: MEDICAL NEED

Upload Image: Choose File: medical.jpg

Uploaded File Preview:

BANK DETAILS

ACCOUNT HOLDER NAME: Sam Dominic

ACCOUNT NUMBER: 14000798540000

IFSC CODE: HDPC07784

BANK NAME: HDPC BANK

Submitting...

Cancel

LOGOUT

ADD EMERGENCY ALERT

localhost:3000 says
Emergency alert reported successfully!

EMERGENCY ALERTS

REPORT AN EMERGENCY

Title: Rising Water Level

Description: Rising Water Level at Ward 2. All the citizens should be careful and take necessary precautions. Stay Safe.

Location: Aluva

Category: Flood

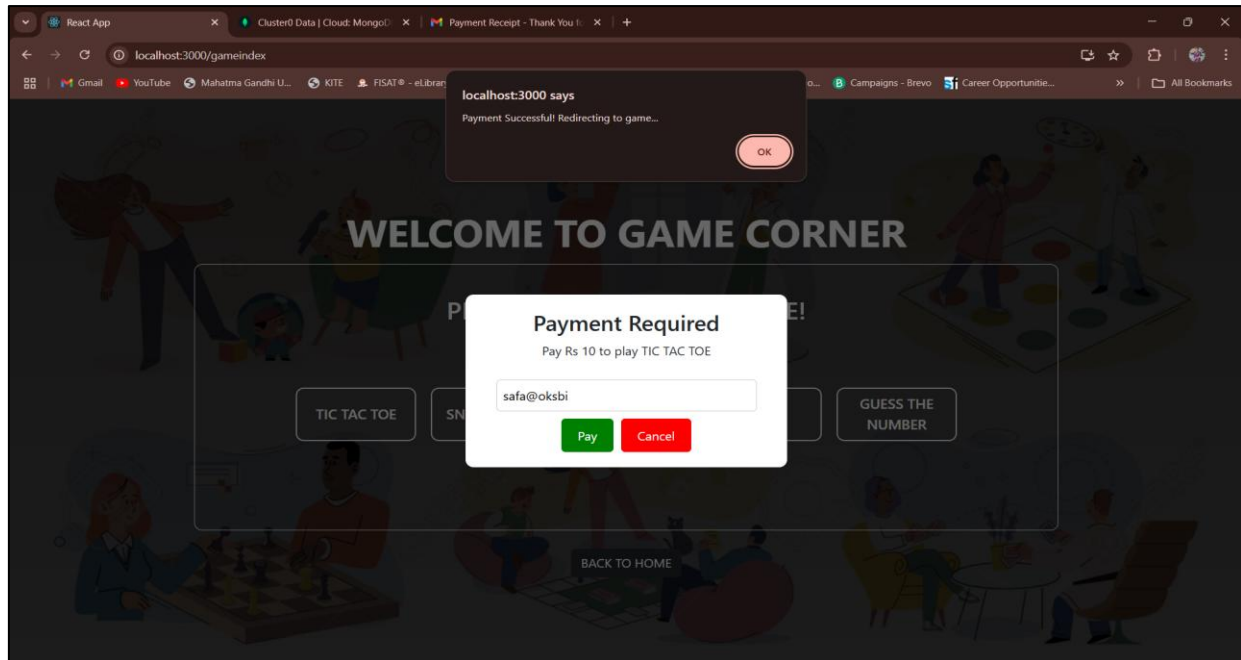
2

+ Report Emergency

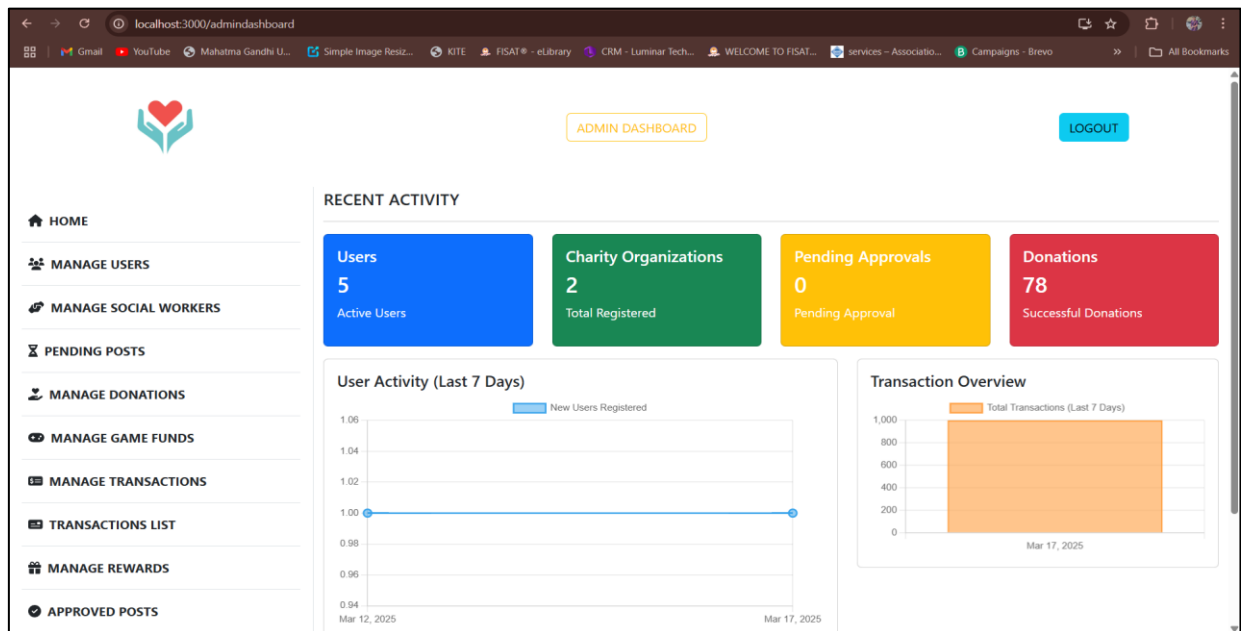
No alerts available.

LOGOUT

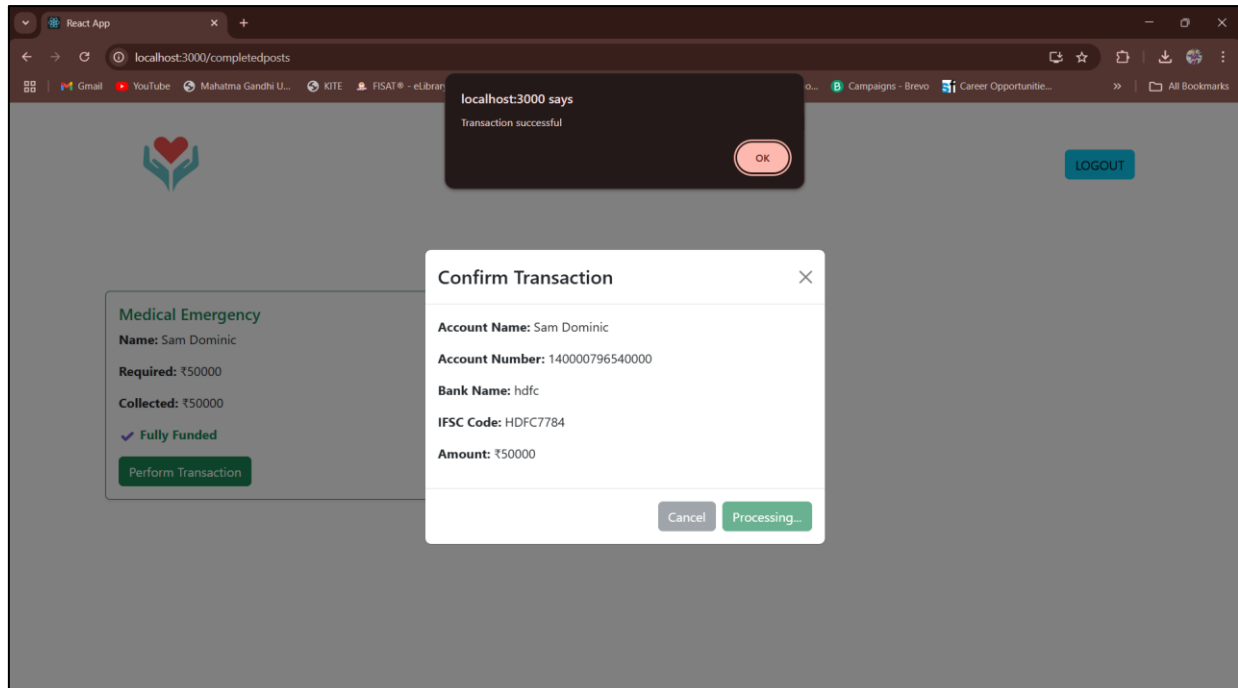
GAME PAYMENT INTERFACE



ADMIN DASHBOARD



TRANSACTION INTERFACE



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