SUPPORT CIRCLE

A PROJECT REPORT
for
Mini Project-I (ID102B)
Session (2024-25)

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CERTIFICATE

Certified that **Udit Ranjan 202410116100229, Subhash Kumar 202410116100211**has/ have carried out the project work having "**Support Circle**" (**Mini Project-I, ID102B**) for **Master of Computer Application** from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself/herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

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ABSTRACT

The **"Support Circle"** project is a dynamic initiative designed to connect donors, volunteers, and NGOs in a unified effort to address critical societal needs. With a central mission to empower communities and uplift underprivileged sections of society, this project serves as a bridge between those willing to contribute and organizations working tirelessly for social welfare. By leveraging the power of collaboration, it strives to create lasting change in education, resource accessibility, and overall community well-being.

At its core, Support Circle focuses on mobilizing resources such as funds, footwear, educational gadgets, stationery, and volunteers to fulfill the specific needs of NGOs. Through its structured approach, it ensures that these organizations have the necessary tools to achieve their goals and deliver meaningful impact in their respective domains. The project's motto, **"सेवा का संकल्प, समाज का समर्थन"** (A pledge to serve, support for society), underscores its commitment to this vision.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1 PROJECT DESCRIPTION

- The primary objective of Support Circle is to simplify and streamline the process of supporting social welfare activities. It allows users to:
- Donate essential items such as footwear, stationery, and gadgets.
- Volunteer their time and skills, such as by teaching or providing professional expertise.
- Contribute funds to support NGO missions.
- Fulfill specific requirements posted by NGOs.
- Support Circle aims to foster collaboration, promote transparency, and make it easier for donors, volunteers, and NGOs to achieve their shared goals.
- It also emphasizes community engagement through features that highlight successful missions and provide updates on ongoing projects.

1.2 PROJECT SCOPE

- **Primary Scope**
  - Provide a centralized platform for NGOs to list their needs and for donors/volunteers to contribute resources or services.
  - Enhance transparency by showcasing the progress of missions and the utilization of donations.
  - Build a supportive community that encourages participation in social welfare.

- **Target Audience**
  - NGOs: Looking for resources, funding, or volunteers to support their initiatives.
  - Donors: Individuals or organizations willing to donate goods, funds, or services.
  - Volunteers: People interested in dedicating their time and skills to teaching or other social services.

- **Future Expansion**
    - Introduce a live tracking system for donations and mission progress.
    - Develop a mobile application for better accessibility and user engagement.
    - Integrate gamification features to reward and recognize contributors.

1.3 FUNCTIONAL REQUIREMENTS

- **User Features**
    - Explore categories such as teaching, gadgets, footwear, and stationery for contributions.
    - Submit forms for donations or volunteer services.

- **NGO Features:**
    - Post requirements for specific needs like funds, teaching volunteers, or resources.

- **UI/UX Features:**
    - A responsive, visually appealing design.
    - Easy navigation with clearly defined sections for donations, missions, and contact information.

1.4 NON- FONCTIONAL REQUIREMENTS

- **Performance:**
    - The platform should load within 3 seconds under normal conditions.
    - Handle concurrent users without performance degradation.

- **Security:**
    - Use HTTPS encryption to secure user data.
    - Implement secure authentication methods to prevent unauthorized access.

- **Usability:**
    - Ensure user-friendly navigation and intuitive forms.
    - Provide clear instructions and feedback for all user actions.
- **Scalability:**
    - Support growing traffic and expanding features.
    - Allow easy integration of additional services or functionalities.

CHAPTER 2

FEASIBILITY STUDY

2.1 TECHNICAL FEASIBILITY

2.1.1. Concepts

- **Proof of Concept (PoC):**
  - Develop a basic version of the platform that includes core functionalities such as user registration, NGO selection, and donation processing. This will help validate the idea and approach before full-scale development.
  - Conduct user testing with a small group of potential users to gather feedback on usability and functionality.

2.1.2 Infrastructure

- **Capacity and Performance:**
  - Assess the existing network infrastructure to ensure it can handle the expected user load. This includes evaluating bandwidth, server capacity, and response times.

- **Functionality:**
  - Ensure that the infrastructure supports necessary functionalities such as secure data storage, user authentication, and payment processing.

2.1.3. Facilities

- **Data Center Requirements:**
  - If using a physical data center, confirm that it meets the project's requirements for uptime, security, and data backup.
  - Evaluate the need for redundancy and disaster recovery plans to ensure data integrity and availability.

2.1.4. Architecture & Design

- **System Architecture:**
    - Validate the proposed architecture, which may include a microservices approach for scalability and maintainability.
    - Ensure that the architecture supports both functional requirements (e.g., user registration, donation processing) and non-functional requirements (e.g., performance, security).

- **Design Review:**
    - Conduct peer reviews of the system design to ensure it meets best practices and standards. This includes reviewing user interface designs for accessibility and usability**.**

2.1.5. Data

- **Data Quality Assessment:**
    - Evaluate the quality of data required for the platform, including user information, NGO details, and donation records.
    - Ensure that data collection methods comply with privacy regulations and that users are informed about data usage.

2.1.6. Platform

- **Evaluation of Platforms:**
    - Assess the platforms that will be used for development (e.g., React for frontend,) to ensure they meet functionality and performance requirements.

2.1.7. Components

- **Component Testing:**
    - Develop prototypes of key components, such as the user registration form and donation processing module, to test functionality and user experience.
    - Conduct unit testing on individual components to ensure they perform as expected.

2.1.8. Integration

- **System Integration:**
  - Plan for how different systems (e.g., user management, donation processing, NGO database) will interact with each other.
  - Ensure that data flows smoothly between components and that there are no bottlenecks in the process.

- **Testing Integration:**
  - Conduct integration testing to verify that all components work together as intended and that data is accurately shared across systems.

2.2 OPERATIONAL FEASIBILITY

2.2.1. User Journey and Experience

- **Registration Process**:
  - Users will register on the platform by providing personal information, selecting preferred NGOs, and indicating their availability for volunteering.
  - The registration form should be simple and intuitive, minimizing the number of required fields to encourage sign-ups.

- **Donation Process**:
  - Users can choose to donate funds or items. The donation process should be straightforward, with clear instructions and options for different types of donations (e.g., monetary, stationery, footwear).
  - Implement a confirmation step to ensure users review their donation details before finalizing.
- **Feedback Mechanism**:
  - Incorporate a feedback system where users can share their experiences after volunteering or donating. This feedback will be crucial for continuous improvement.

2.2.2. Support Structure

- **Customer Support**:
  - Establish a dedicated customer support team to assist users with registration, donation issues, and technical problems.
  - Provide multiple channels for support, including email, live chat, and a help center with FAQs.

- **Training and Resources**:
  - Train support staff on the platform's functionalities and common issues users may face.
  - Create a knowledge base for support staff to reference when assisting users.

2.2.3. Operational Processes

- **Volunteer Coordination**:
  - Develop a system for NGOs to post volunteer opportunities and for users to sign up for these opportunities.
  - Implement a calendar feature that allows users to see available time slots for volunteering and manage their commitments.

2.2.6. Marketing and Outreach

- **Awareness Campaigns**:
  - Create marketing campaigns to raise awareness about the platform and its benefits for volunteers and donors.
  - Utilize social media, local events, and community partnerships to reach potential users.
- **User Engagement**:
  - Implement strategies to keep users engaged, such as newsletters, success stories, and updates on the impact of their contributions.
  - Encourage users to share their experiences on social media to promote the platform organically.

2.2.7. Risk Management

- **Identifying Risks**:
    - Identify potential operational risks, such as low user engagement, technical failures, or negative feedback from users.
    - Develop contingency plans to address these risks, including strategies for user retention and technical support.

- **Monitoring and Evaluation**:
    - Establish key to measure the platform's success, such as user registration rates, donation amounts, and volunteer sign-ups.
    - Regularly review performance data to identify areas for improvement and adjust operational strategies accordingly.

2.3 BEHAVIORAL FEASIBILITY

Behavioral feasibility considers the human aspects of the project, ensuring the users are willing and motivated to adopt and use the system effectively.

2.3.1 Stakeholders' Motivation

- **Donors:** The ability to donate funds, gadgets, or footwear through a transparent system encourages trust and long-term engagement.
- **Volunteers:** The opportunity to directly impact the lives of underprivileged individuals fosters a sense of social responsibility.
- **NGOs:** NGOs benefit from a collaborative platform where they can showcase their needs and progress, building credibility.

2.3.2 Ease of Use

The user interface is designed to minimize friction:

- A clean layout with easy navigation.
- Accessible contact options to build trust and resolve queries.
- Feedback loops to improve user satisfaction.
- Behavioral feasibility is high due to the simplicity, transparency, and purpose-driven nature of the platform.

CHAPTER 3

PROJECT OBJECTIVES

3.1. Facilitate Volunteer Engagement

To connect volunteers with NGOs effectively by offering a user-friendly interface.

- Allow volunteers to create detailed profiles, specifying their skills, interests, and availability.
- Enable NGOs to list opportunities and match them with suitable volunteers based on their preferences.
- Simplify communication between NGOs and volunteers using built-in messaging tools.
- Include scheduling tools to ensure efficient coordination and time management.

3.2. Foster Community Engagement

To build a vibrant community of supporters, volunteers, and NGOs.

- Create forums or discussion boards where community members can collaborate, share experiences, and offer feedback.
- Organize virtual events, webinars, and workshops to strengthen connections.
- Develop a feedback mechanism for NGOs and volunteers to continuously improve the platform's offerings.

3.3. Address Challenges Faced by NGOs

To identify and resolve common obstacles that hinder NGOs' efficiency and impact.

- Provide tools to help NGOs secure funding, manage resources, and streamline operations.
- Offer training resources and tutorials to improve digital literacy among NGOs.
- Address technical challenges like access to reliable internet and modern software solutions.

3.4. Promote Awareness of Social Issues

To increase public awareness and engagement with the social causes addressed by NGOs.

- Publish educational content, including blogs, videos, and infographics, on pressing social issues.
- Collaborate with NGOs to highlight success stories and their impact on communities.
- Use social media campaigns to encourage public discourse and involvement.
- Partner with influencers or notable figures to amplify the reach and visibility of critical causes.

CHAPTER 4

PROJECT OUTCOMES

- **Development of a Centralized Support Platform**: A functional, user-friendly platform was successfully created to connect NGOs, donors, and volunteers. The platform serves as a unified hub where NGOs can list their needs, donors can offer resources, and volunteers can register to contribute their time and skills.

- **Enhanced Transparency and Real-time Tracking**: The project introduced a transparent system where users can track donation status, and receive updates on NGO activities. This feature builds trust and encourages continued support from donors and volunteers.

- **User Registration and Role-based Access**: Custom registration processes for donors, volunteers, and NGOs were implemented. Each user type has access to specific features, such as donors submitting donation forms, volunteers scheduling their availability, and NGOs posting their requirements.

- **Donation and Volunteer Management**: The platform facilitates the smooth handling of donations, including funds, resources (like footwear and stationery), and volunteer time. NGOs can view and manage their received support, while donors and volunteers can track their contributions.

- **Responsive User Interface (UI) and User Experience (UX)**: The system was designed with a mobile-responsive, intuitive interface to ensure ease of access for users on desktops, tablets, and smartphones. The clean, visually appealing design supports smooth navigation and effective interaction.

- **Modular Design and Scalability**: The project followed a modular approach, with separate modules for teacher registration, recipient management, and donor management. This design allows for future expansion, including live tracking, gamification, and mobile app integration.

- **Future-readiness and Expansion Possibilities**: The project established a scalable architecture, enabling future enhancements like live tracking of donations, gamification of user engagement, and the development of a mobile application for better accessibility and user participation.

- **Community Impact and Social Awareness**: The project achieved its primary goal of fostering community engagement and empowering underprivileged communities. By simplifying the process of resource sharing, the platform encourages more people to contribute, thereby enhancing social welfare outcomes.

4.1 USER INTERFACE DESIGN

- **4.1.1. Landing Page**

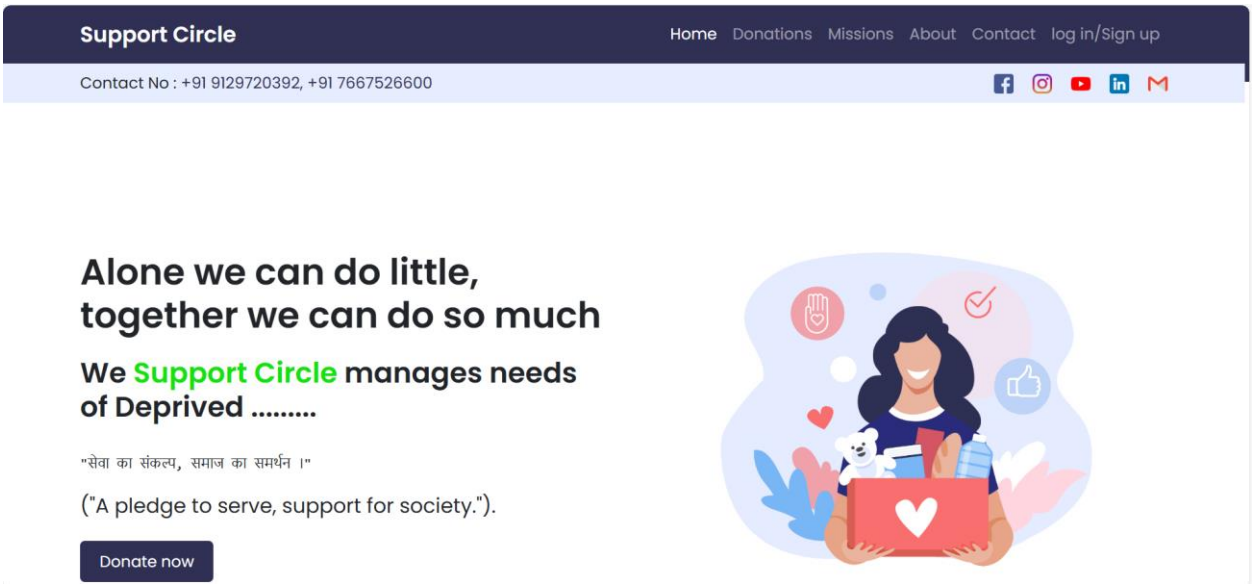

Fig. 4.1: Landing page

- **4.1.2. Login Page**

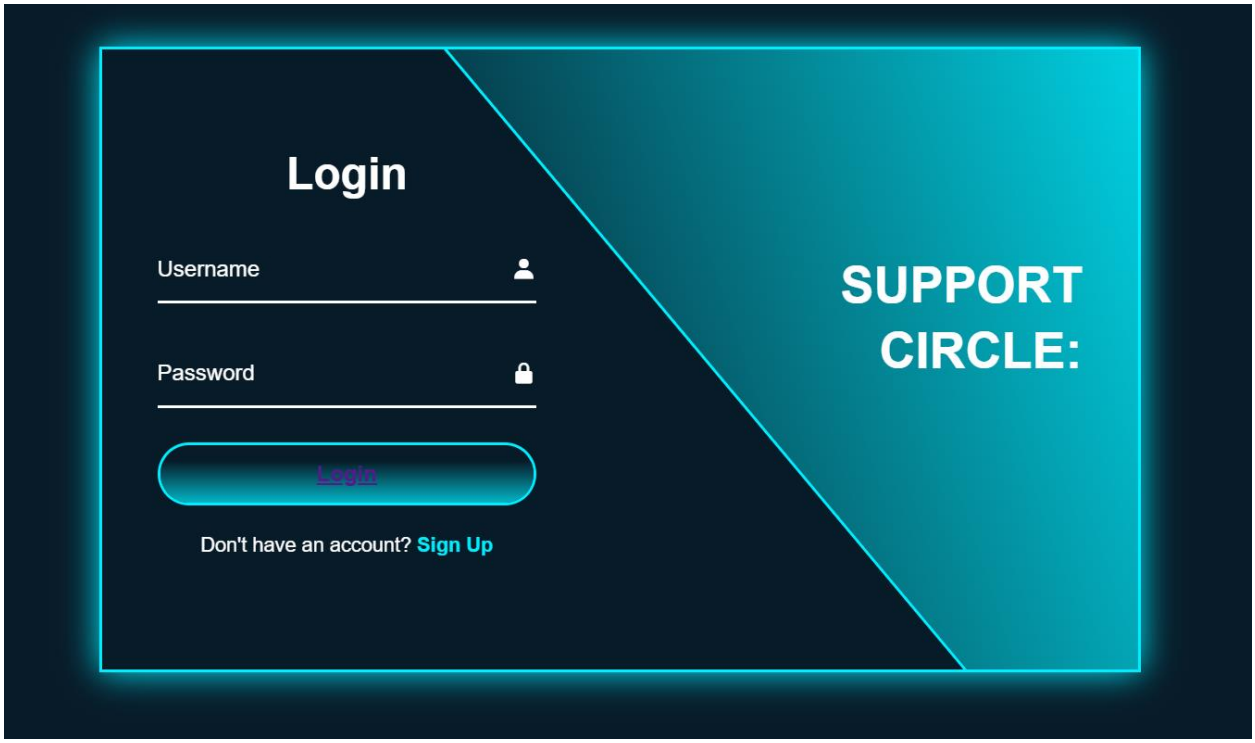

Fig. 4.2: Login page

- **4.1.3. Contact page**

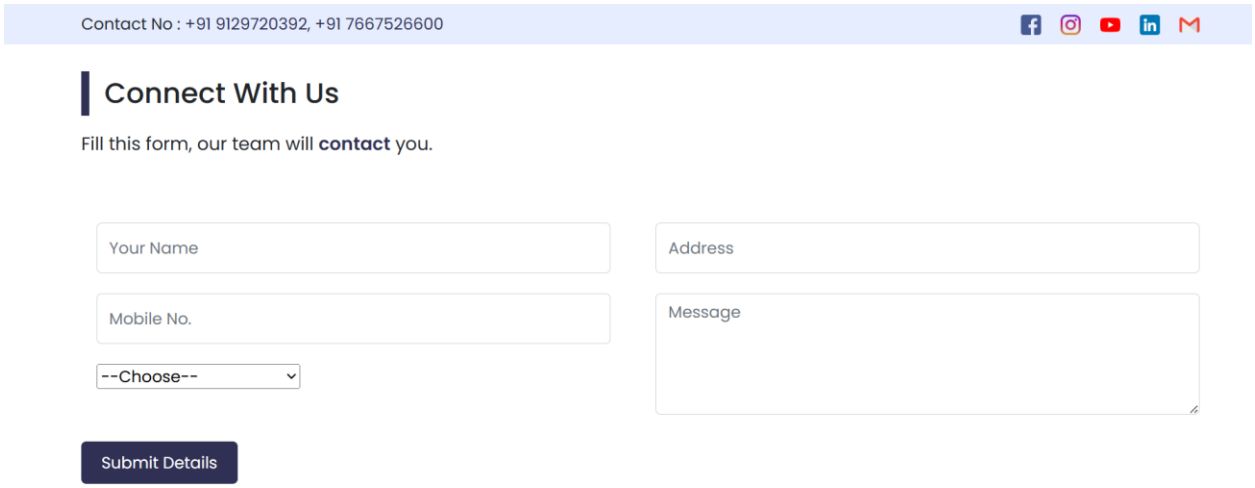

Fig. 4.3: Contact page

- **4.1.4. Provide supports**

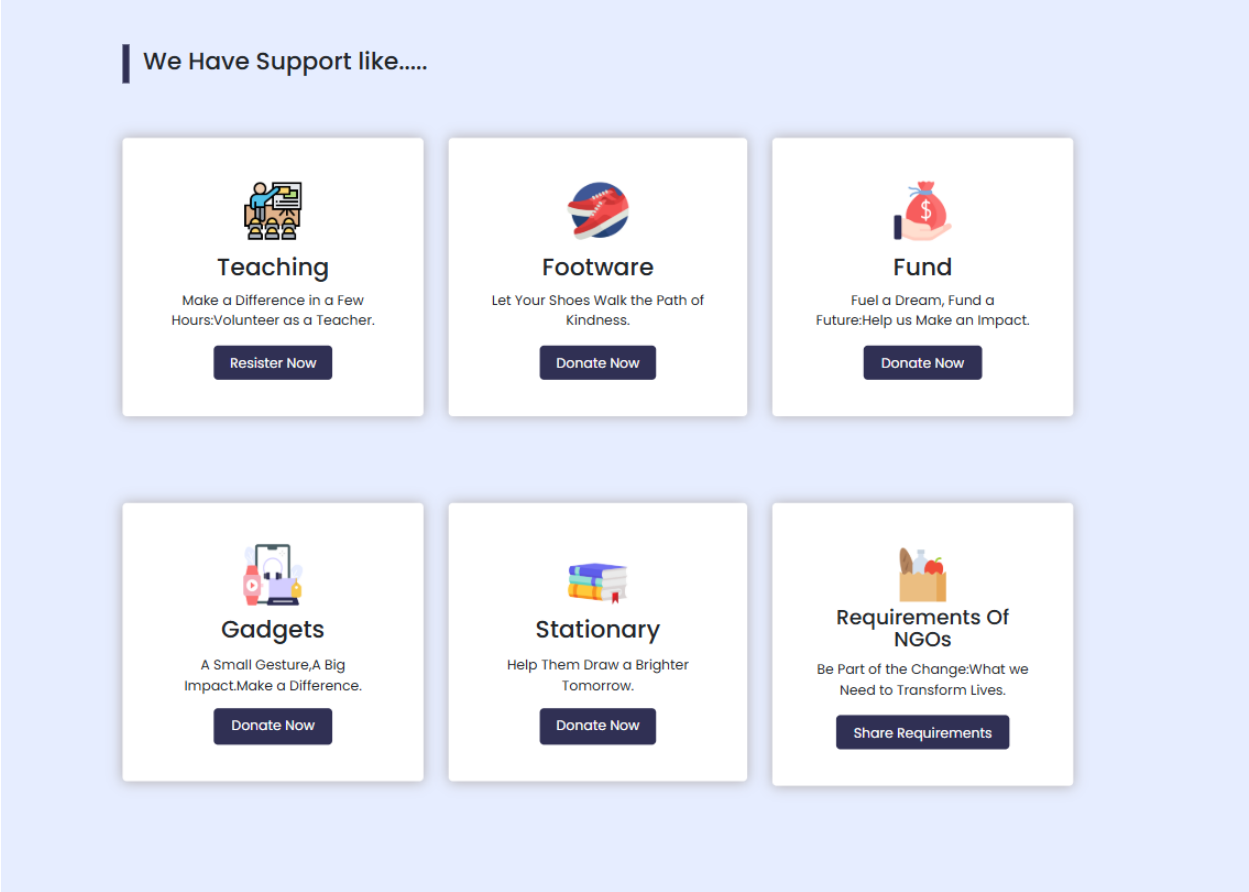

Fig. 4.4: Support page

- **4.1.5. Registrations**

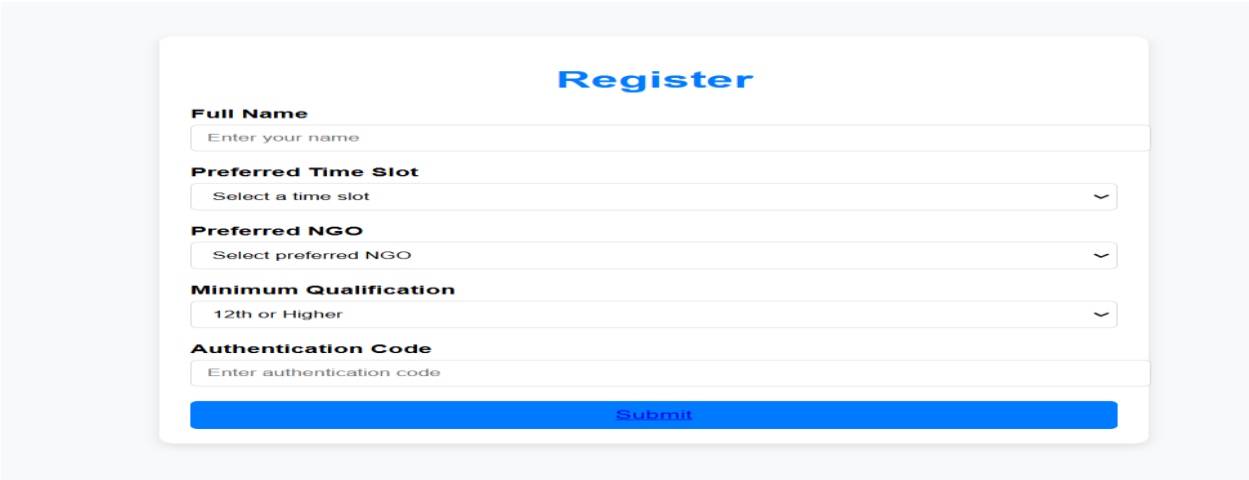

Fig. 4.5: Register page

- **4.1.6. Donations**

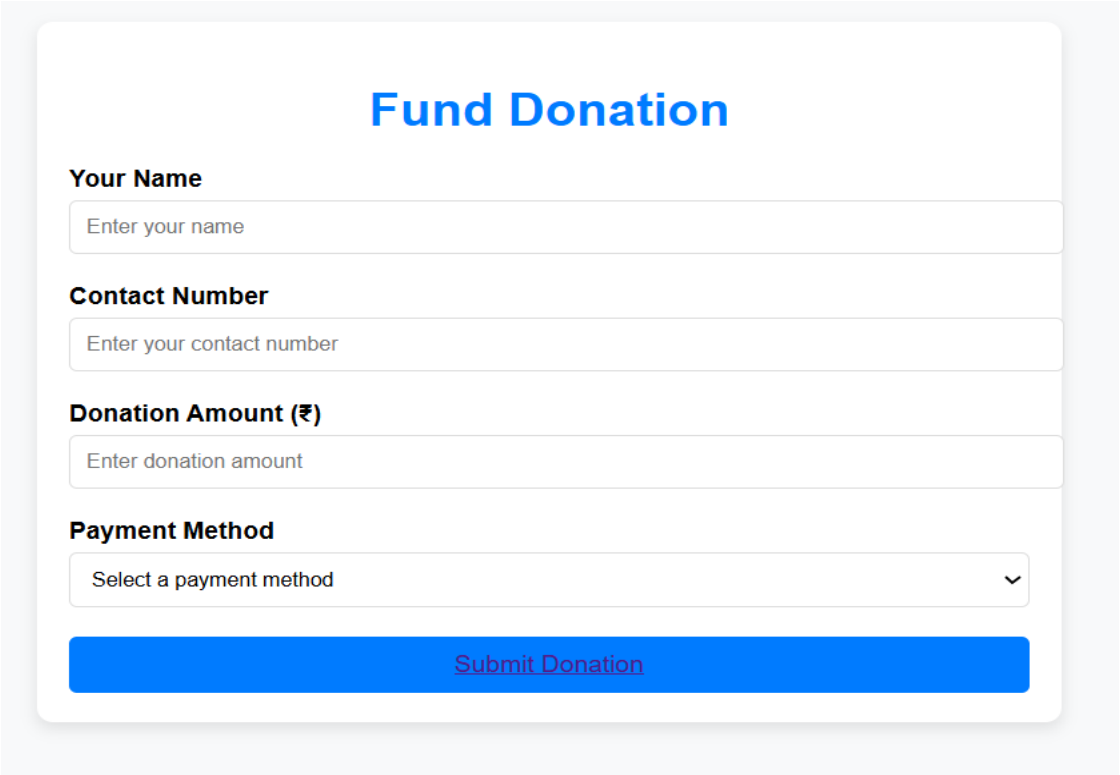

Fig. 4.6: Fund donation page

4.2 MODULE DESCRIPTION

Module 1: Teacher Registration

This module facilitates the onboarding of teachers onto the platform. It includes the following functionalities:

- **Account Setup:** Teachers can create their profiles by providing essential details such as their name, professional background, qualifications, and geographic location.
- **Time Scheduling:** Teachers can set their availability by selecting time slots that are convenient for them to teach. This ensures flexibility and better coordination.
- **Proficiency:** Teachers can specify the subjects or skills they are proficient in and are willing to teach. This helps in matching teachers with NGOs and students based on their expertise.

Module 2: Recipient Management

This module is designed for NGOs or recipient organizations to manage their requirements and activities effectively. It includes:

- **Recipient Profiles:** NGOs can create their profiles by providing valid details such as organization name, location, capacity, and other critical information.
- **Requirement of Help:** NGOs can specify the type of support they need, such as educational resources, faculty, or volunteers.
- **Faculty Requirements:** NGOs can outline the specific faculty or teachers they require, including preferred time slots and subjects, to ensure smooth scheduling and support.

Module 3: Donor Management

This module allows individuals or organizations interested in contributing to NGOs to manage their donations. It includes:

- **Donor Profiles:** Donors can create their profiles with valid details, including their name, contact information, and preferences.
- **Type of Donation**: Donors can specify the type of donations they are willing to provide, such as financial contributions, educational materials (books, stationery), or time-based support like mentoring or teaching.

4.3 DATABASE DESIGN

4.3.1. Use Case Diagram

The use case diagram illustrates the interactions between users (volunteers) and the system. It identifies the main functionalities that the system will provide.

- **Actors:**
  - User (Volunteer): A person who registers to volunteer.
  - Admin: A person who manages the NGOs and user registrations.
- **Use Cases:**
  - Register as a Volunteer
  - Login to the System

- View Available NGOs
- Select Time Slot
- Register for an NGO
- Make a Donation
- View Registration History
- Manage NGOs (Admin only)

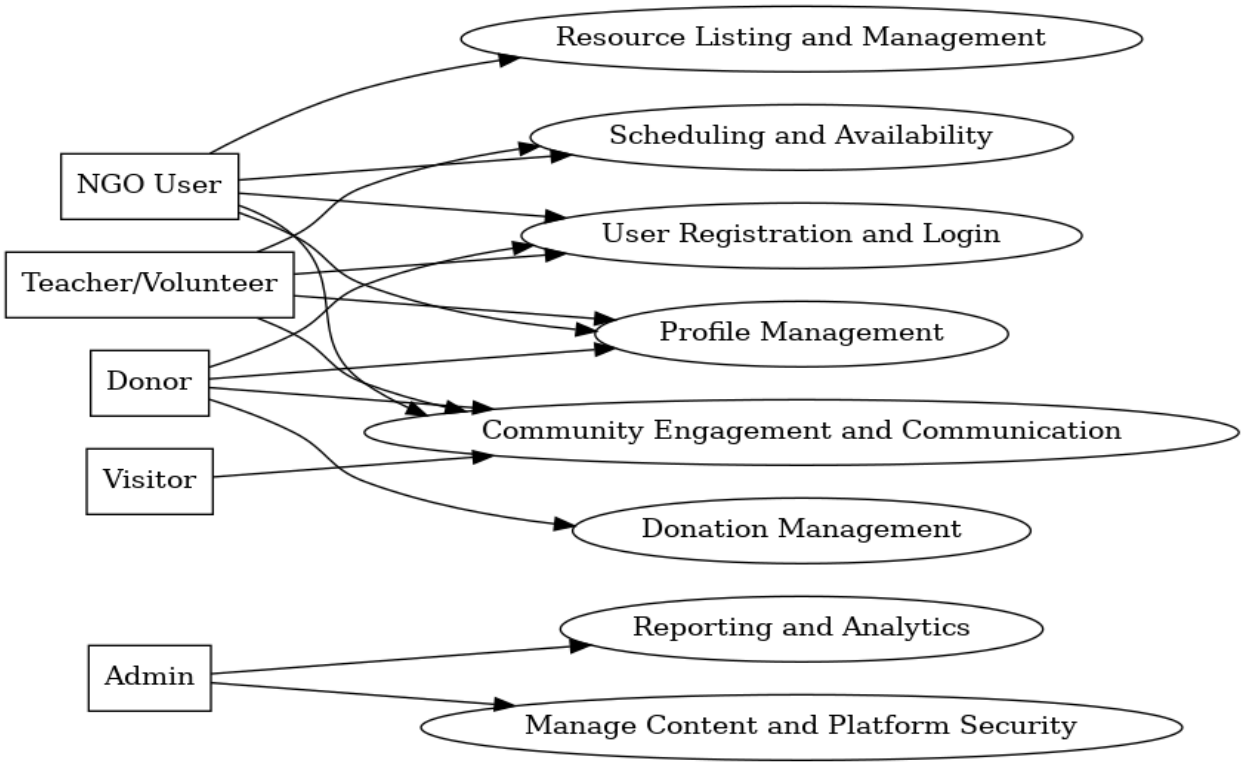

Fig 4.7: Use case diagram

4.3.2. Entity Relationship Diagram

- ER model stands for an Entity-Relationship model. It is a high-level data model. This model is used to define the data elements and relationship for a specified system.
- It develops a conceptual design for the database. It also develops a very simple and easy to design view of data.
- In ER modelling, the database structure is portrayed as a diagram called an entity-relationship diagram.

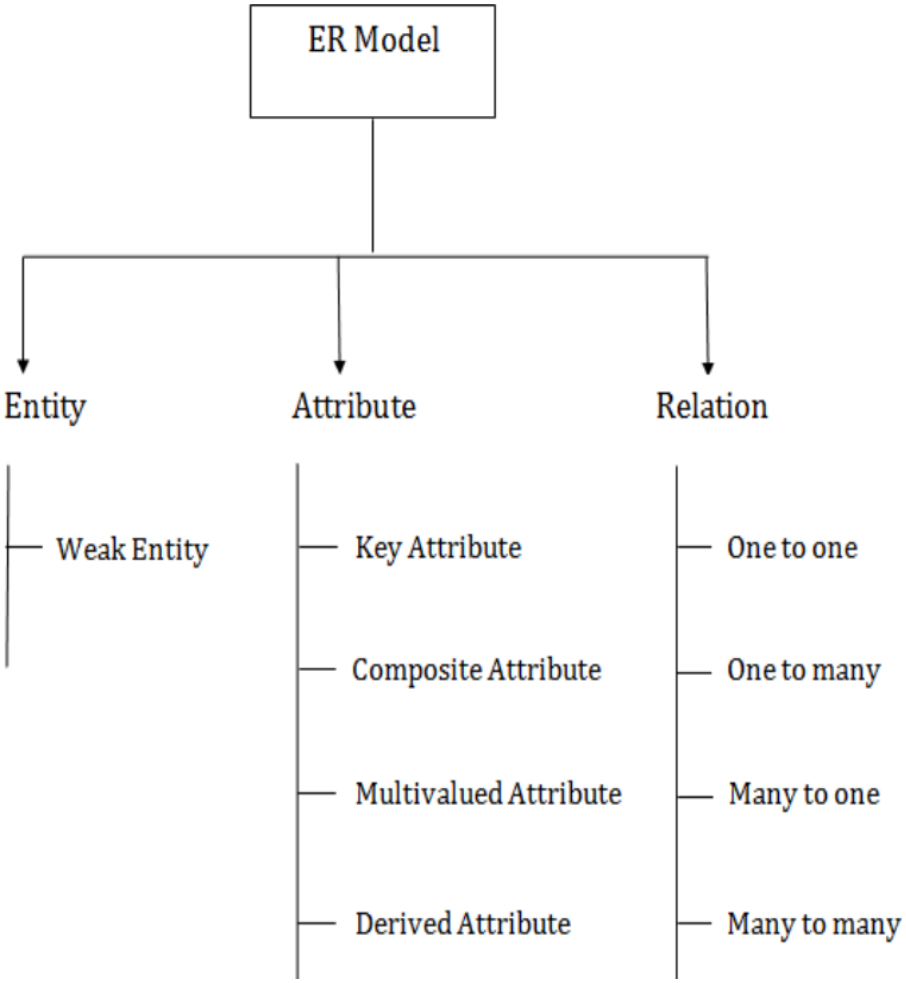

Fig. 4.8: E-R model

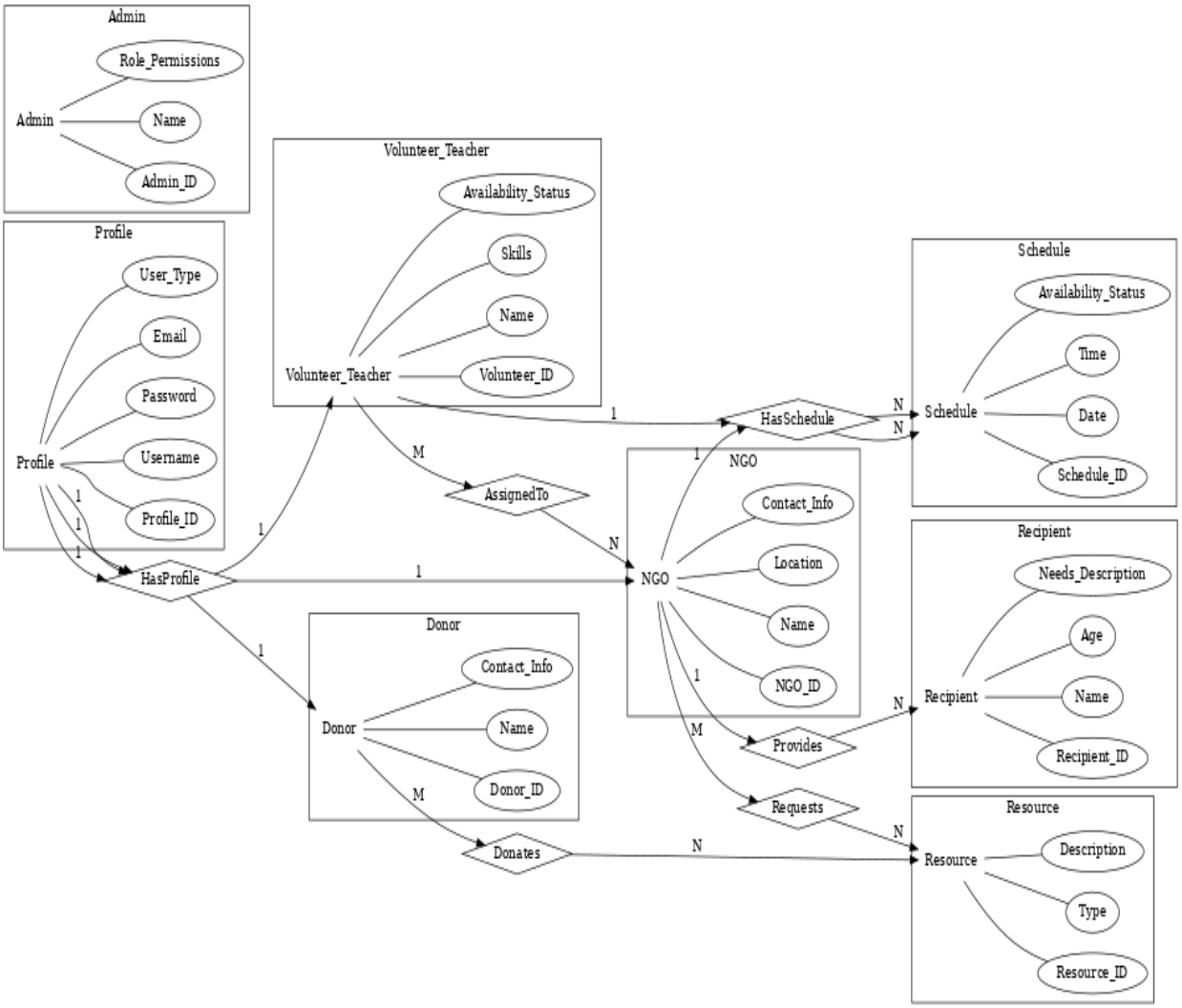

Fig. 4.9: E-R diagram

4.4 SUMMARY

The "Support Circle" project is a platform designed to connect donors, volunteers, and NGOs to support social welfare initiatives. Its primary goal is to streamline the process of contributing resources, funds, and volunteer services to NGOs, thereby empowering communities and uplifting underprivileged sections of society. The platform allows donors to provide essential items like footwear, stationery, and educational gadgets, while volunteers can offer their skills and time to support NGO missions. NGOs, in turn, can list their specific needs and track the status of their requests. The system prioritizes transparency, user engagement, and ease of use, featuring a centralized dashboard for donations, missions, and updates. Key functional modules include teacher registration, recipient management, and donor management, each designed to ensure smooth and efficient user interactions. The platform is built with scalability, security, and accessibility in mind, supporting growth in user traffic and feature expansion. Economic feasibility analysis, system architecture design, and user-friendly UI/UX are integral to the project's success, with future plans to introduce live tracking of donations, mobile app support, and gamification features to incentivize contributions. Through this initiative, "Support Circle" aims to foster a supportive community, encourage participation in social welfare, and create lasting societal impact.

CHAPTER 5

HARDWARE AND SOFTWARE REQUIREMENTS

4.1. HARDWARE REQUIREMENTS

These are the physical components necessary to host, run, and support the platform.

- **Server Requirements**:
  - **Processor**: Multi-core processor (Intel i5/i7 or AMD equivalent)
  - **RAM**: Minimum 8 GB (16 GB recommended for optimal performance)
  - **Storage**: SSD with at least 100 GB capacity for system files, logs, and backups
  - **Network**: High-speed internet connection with adequate bandwidth to handle concurrent users
  - **Backup Device**: External storage for periodic backups (external drives, cloud storage)

- **User-side Requirements**:
  - **Device**: Desktop, laptop, tablet, or smartphone
  - **Browser**: Chrome, Firefox, Safari, or any modern browser with HTML5 and JavaScript support
  - **Internet**: Stable internet connection for seamless interaction with the platform

4.2. SOFTWARE REQUIREMENTS

These are the software tools, applications, and platforms required to build, deploy, and maintain the "Support Circle" system.

- **Development Tools**:
  - **Frontend**: html,CSS,bootstrap,React.js (for building the user interface)
  - **Version Control**: GitHub or Git (for source code management)
  - **IDE/Code Editor**: Visual Studio Code (for coding and development)

CHAPTER 6

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