American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science & Technology (FST)

TREE PLANTATION CHARITY MANAGEMENT SYSTEM

A Software Engineering Project Submitted By

Semester: Spring 23-24		**Section: D**	**Group Number: 04**	
SN	Student Name	Student ID	Contribution (CO3+CO4)	Individual Marks
1	MD. Jobaer Hossain	22-47116-1	25%	
2	Samia Sharmin Dola	22-47126-1	25%	
3	Rifah Sanzida	22-47154-1	25%	
4	Shayan Abrar	22-47156-1	25%	

The project will be Evaluated for the following Course Outcomes

CO3: *Select* appropriate software engineering models, project management roles and their associated skills for the complex software engineering project and evaluate the sustainability of developed software, taking into consideration the societal and environmental aspects	Total Marks	
Appropriate Process Model Selection and Argumentation with Evidence	[5 Marks]	
Evidence of Argumentation regarding process model selection	[5Marks]	
Evaluate the sustainability of the developed software in terms of both society and the environment (Impact identification)	[5Marks]	
Submission, Defense, Completeness, Spelling, grammar and Organization of the Project report	[5Marks]	

CO4: *Develop* project management plan to manage software engineering projects following the principles of engineering management and economic decision process	Total Marks	
Develop the project plan, its components of the proposed software products	[5Marks]	
Identify all the activities/tasks related to project management and categorize them within the WBS structure. Perform detailed effort estimation correspond with the WBS and schedule the activities with resources	[5Marks]	
Identify all the potential risks in the specific project and prioritizing/categorizing those to overcome the risk factors.	[5Marks]	

Description of Student's Contribution in the Project work

Student Name: MD. Jobaer Hossain Student ID: 22-47116-1 Contribution in Percentage (%):25% Contribution in the Project: Contribution Description : Gantt chart, Project management Contribution Description : Project report, sequence diagram _____jobaer_____ Signature of the Student
Student Name: Samia Sharmin Dola Student ID: 22-47126-1 Contribution in Percentage (%):25% Contribution in the Project: Contribution Description : Use-case diagram, Activity Diagram Contribution Description : Project planning, Project Risk _____samia_____ Signature of the Student
Student Name: Rifah Sanzida Student ID: 22-47154-1 Contribution in Percentage (%):25% Contribution in the Project:

Contribution Description: Class Diagram, WBS Contribution Description: Deployment/Package Diagram, Project Requirements _____rifah_____ Signature of the Student
Student Name: Shayan Abrar Student ID: 22-47156-1 Contribution in Percentage (%):25% Contribution in the Project: Contribution Description: Prototype design with basic HTML and TAILWIND CSS for web view and responsive mobile application view. Contribution Description: Architectural diagram, test & SQA plan,maintenance. _____abrar_____ Signature of the Student
Student Name: Student ID: Contribution in Percentage (%): Contribution in the Project: Contribution Description 1 Contribution Description 2 _____ Signature of the Student

PROJECT PROPOSAL

Background to the Problem

- Write the background description that helps putting your project into the right context of a problem domain and gives everyone involved a common view of the project.
- What is the root cause of this problem? Why this problem is so important to consider?

Solution to the Problem

- Describe what is your project/thesis objective? What solutions are you going to provide to solve the above-mentioned problems?
- What are the solutions you are going to propose to deal with the problem? why is this solution is particularly appropriate to solve the problem? Is the solution feasible to the meet the business objective?

- Describe the basic functionalities of your proposed solution that makes the best use of state-of-art technology and produced a significant result that is likely to have a major impact on societal, health, safety, legal and cultural issues. Provide a deep insight that demonstrate and preset a creative solution to the real-life problem.
- Describe the target group of users of your solution? And how they will be benefited by your proposed solution to the problem?
- Describe the contribution of your project to the development of scientific results that is identified and well documented.
- Provide a literature review on what are the other studies that have discussed the same topic of yours in the literature and explain how your study has utilized and extended the problems of existing studies.
- Provide a description of all the existing studies presented in the problem area. What are the existing software solutions (for project) are available to solve the aforementioned problems?
- What are the existing software solutions are available to solve the aforementioned problem? And how your proposed solution is going to extend them in providing more benefits to the users?

SOFTWARE DEVELOPMENT LIFE CYCLE

Process Model

- Provide an analysis regarding the nature and environment of the software that you are going to develop and select the best suitable method(s) to develop the software.
- Present your arguments based on your analysis about why your selected method(s) is the best choice among all other methods to develop your proposed software.
- Presents sufficient amount of evidence to support argument for your model selection in developing your proposed solution.

Project Role Identification and Responsibilities

- Identify all the roles/stakeholder in the software/project management activities in software development.
- Describes the responsibilities of the role in the software development.

Text Format:

- Style: Times New Roman
- Size: 12
- Space: 1.0
- Alignment: Justify
- Length: Maximum 6 pages (including cover page)

Rubric for Project Assessment (CO3)

Criteria	Marks distribution (Max 4X5= 20)				Acquired Marks
	Missing/ Incorrect (0-1)	**Inadequate (2)**	**Satisfactory (3-4)**	**Excellent (5)**	
Selection of Software Engineering Models	Does not articulate a position or argument of choosing appropriate model. Does not present any evidence to support the arguments for the choice of the model.	Articulates a position or argument for choosing models that is unfocused or ambiguous. Presents incomplete/vague evidence to support argument for model choice.	Articulates a position or argument of choosing models that is limited in scope. Does not present enough evidence to support the argument for the choice of the model	Clearly articulates a position or argument for the choosing software engineering models. Presents sufficient evidence to support argument for the model selection	
Role identification and Responsibility Allocation	The project has poor project management plans for identifying roles and assigning the responsibilities	Identify few roles in the project management where some of the roles are left alone with any project responsibilities	Identify most of the roles in the project management and assign their responsibilities	Well planned project with proper role identification and responsibility allocation in the project management activities	
Impact identification	Student vaguely discuss the impact of societal, health, safety, legal, cultural, or environmental issues in their project	Student provided with partial relevance to the impact of societal, health, safety, legal, cultural, or environmental issues in their project	Student fairly provided the analysis to the impact of societal, health, safety, legal, cultural, or environmental issues in their project	Student comprehensively provided the analysis to the impact of societal, health, safety, legal, cultural, or environmental issues in their project	
Formatting and Submission	Project report is not complete and Several errors in spelling and grammar. Present a Confusing organization of concepts, supporting arguments, and real-life example. Sentences rambling, and details are repeated.	Some errors in spelling and grammar. Some problems of organizing the answer in a logical order of defining, elaborating, and providing real-life examples.	Few errors in spelling and grammar. Presents most of the details in a logical flow of organization in definition, details, and example.	Project report is complete and No errors in spelling and grammar. Consistently presents a logical and effective organization of definition, details, and real-life example of the topic.	

Acquired marks:	
CO Pass / Fail:	

Rubric for Project Assessment (CO4)

Marking Criteria	Marks Distribution (Maximum 3X5=15)				Acquired Marks
	Missing/ Incorrect (0-1)	**Inadequate (2)**	**Satisfactory (3-4)**	**Excellent (5)**	
Project Planning	Missing or incorrect project plan;	Insufficient project plan provided: project team, project tasks, goals etc. stated poorly.	Sufficient information provided : project team members, their tasks, project plan discussed in details.	Thorough and relevant project plan is provided; project plan is clear and easy to follow.	
Effort Estimation and Scheduling	Missing or incorrect effort estimation or schedules based on available project resources	Insufficient or poorly stated effort estimation or schedules based on available project resources	Correct or sufficient technique used for effort estimation or schedules based on available project resources	Project estimation was described using proper effort estimation or schedules based on available project resources	
Risk Management	Risk analysis activities were missing or inappropriate for the specific project: unidentified risks or wrongly categorized risks or not prioritized properly.	Risks are partially identified(insufficient) and not properly categorized or not prioritized properly.	Sufficient and critical risks are identified(insufficient) and properly categorized but not prioritized properly.	Sufficient and appropiate risks are identified, analyzed, and properly categorized or prioritized.	
				Acquired Marks:	
				CO Pass / Fail:	

Project description

The Ever Green Foundation Software is an environmental organization that is fully dedicated to bringing about positive change in our natural world. We are committed to promoting sustainability and biodiversity through various strategic initiatives, including tree planting, habitat restoration, and community education. Our online platform serves as a central hub for individuals who are passionate about environmental conservation to actively engage and make contributions. Visitors to our platform can easily track their impact by accessing metrics such as the number of trees planted, carbon emissions offset, and habitat enhancement achieved through their support. Furthermore, our platform provides valuable insights into ongoing projects, allowing users to stay informed about current environmental efforts and explore opportunities for involvement. In addition, It features moving testimonies from recipients that elegantly demonstrate the concrete results of group effort.

Problem Statement

Our planet is struggle with intense environmental challenges that threaten the liveliness of our ecosystems, the diversity of species, and the well-being of human societies. Among these, deforestation not only leads to a sharp loss of biodiversity but also disrupts climate regulation, contributing to global warming. Urbanization and industrial activities exacerbate carbon emissions, enhancing the greenhouse effect and leading to climate change. These activities also degrade natural habitats, putting numerous species at risk of extinction. A significant barrier to addressing these issues is the lack of public awareness about the importance of environmental protection and the impact of human actions on the health of our planet. Additionally, environmental organizations often struggle with inadequate resources, such as funding and manpower, limiting their ability to effectively tackle these issues. Engaging communities in protecting efforts is further challenged by differing priorities, lack of education, and socio-economic factors, underscoring the need for a detailed solution that addresses these multifaceted challenges. Some of the main challenges are:

- **Deforestation**: Many areas around the world are experiencing deforestation, leading to loss of biodiversity, habitat destruction, and adverse effects on climate stability.

- **Carbon Emissions:** Human activities such as transportation and industrial processes release large amounts of carbon dioxide into the atmosphere, contributing to global warming and climate change.

- **Habitat Degradation:** Urbanization and industrialization often result in the degradation of natural habitats, threatening the survival of various plant and animal species.

- **Lack of Awareness**: Many people are unaware of the importance of environmental conservation and the impact of their actions on the planet's health.

- **Limited Resources:** Environmental organizations often face challenges in securing adequate resources, including funding and manpower, to address conservation issues effectively.

- **Community Engagement:** Engaging communities in environmental conservation efforts can be challenging due to differing priorities, lack of education, and socio-economic factors.

Proposed Solution

To counteract these pressing environmental issues, our platform will serve as a beacon for education, collaboration, and proactive action. Our goal is to debunk the myths around environmental issues by providing engaging facts that clarifies the effects of ecosystem loss, carbon emissions, and deforestation. Our platform will feature:

- **Raising Awareness:** Our software will provide easy-to-understand information about environmental issues like deforestation, carbon emissions, and habitat degradation. Through engaging content, we aim to educate visitors about the importance of conservation efforts.

- **Tree Planting Initiatives:** We will facilitate tree planting events and campaigns in collaboration with local communities. By encouraging individuals to contribute to tree planting projects, we aim to combat deforestation and promote biodiversity.

- **Carbon Offset Programs**: Our platform will promote carbon offset programs where users can calculate their carbon footprint and contribute to projects that reduce greenhouse gas emissions, such as reforestation and renewable energy initiatives.

- **Habitat Restoration:** Partnering with environmental organizations, we are restoring damaged ecosystems and providing habitat for threatened species. we are going to support habitat restoration initiatives.

- **Interactive Features:** Through interactive features like forums and success stories, we will foster community engagement and encourage active participation in environmental conservation efforts.

- **Resource Mobilization:** We will facilitate fundraising campaigns and donation drives to support environmental organizations and initiatives, ensuring they have the resources needed to carry out their conservation activities effectively.

Process Model

We chose the Scrum framework for its adaptability, emphasis on collaboration, and capability to manage complex projects with shifting requirements. Unlike traditional models, Scrum allows for rapid iteration and flexibility, essential for a project responding to the dynamic field of environmental conservation. Its structured yet flexible approach enables our team to regularly check and adapt to stakeholders' needs, technological advancements, and new environmental data. This agility ensures that our platform remains to the purpose and effective in its mission, making Scrum the ideal methodology for our project.

Scrum Roles:

- **Product Owner:** Responsible for defining the project vision, prioritizing features, and ensuring that the product backlog is aligned with stakeholder needs. The product owner will represent the interests of the users and stakeholders throughout the project.

- **Scrum Master:** Facilitates the Scrum process, removes hinderance, and ensures that the Scrum team stick to Scrum principles and practices. The Scrum master will coach the team and help them optimize their productivity.

- **Development Team:** Comprised of cross-functional members responsible for delivering potentially shippable increments of the product. The development team collaborates closely to design, develop, test, and deploy features.

Scrum Artifacts:

- **Product Backlog:** A prioritized list of features, enhancements, and bug fixes maintained by the product owner. The product backlog serves as the single source of requirements for the Scrum team.

- **Sprint Backlog:** A subset of items from the product backlog selected for implementation during a sprint. The sprint backlog is owned by the development team and contains the tasks required to complete the selected backlog items.

- **Increment:** The sum of all the product backlog items completed during a sprint, potentially shippable and usable by stakeholders.

Scrum Events:

- **Sprint Planning**: At the beginning of each sprint, the product owner and development team collaborate to select backlog items for the sprint backlog. They discuss the scope, objectives, and acceptance criteria for each item.

- **Daily Standup:** A short daily meeting where the development team shares progress, plans for the day, and any hinderance they're facing. The Scrum master facilitates the standup to ensure it stays focused and timeboxed.

- **Sprint Review**: At the end of each sprint, the development team demonstrates the completed increment to the product owner and stakeholders. They gather feedback and discuss potential adaptations to the product backlog.

- **Sprint Retrospective:** A meeting held after the sprint review where the development team reflects on their process, identifies strengths and areas for improvement, and agrees on action items to enhance future sprints.

Scrum Implementation in Our Project:

- **Product Backlog Refinement:** The product owner continuously refines the product backlog based on feedback from stakeholders and market research.

- **Sprint Planning:** At the beginning of each sprint, the development team collaborates with the product owner to select backlog items and define sprint goals.

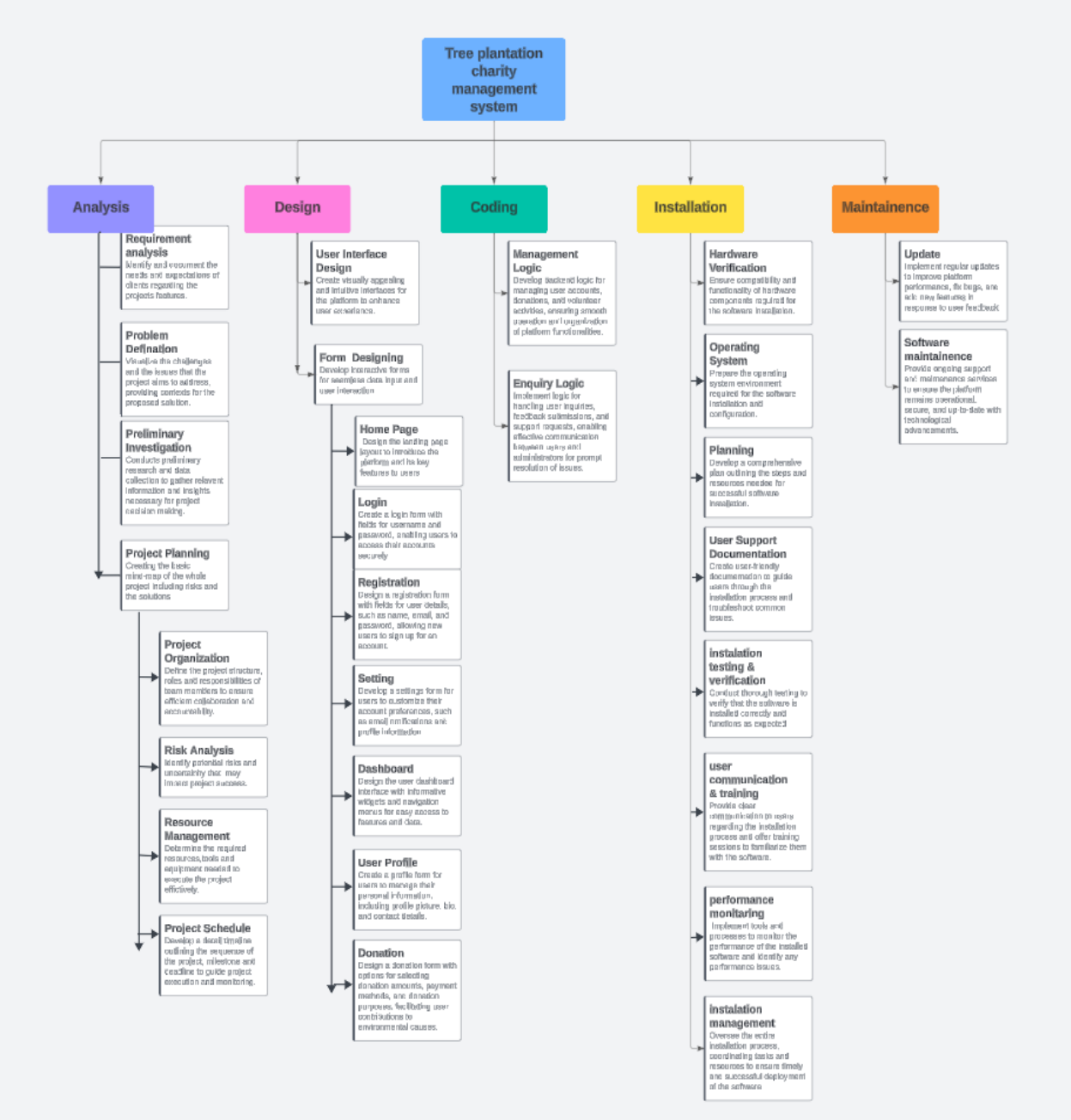
- **Daily Standup:** The development team conducts daily standup meetings to synchronize their activities, discuss progress, and identify any obstacles.

- **Sprint Review and Retrospective:** At the end of each sprint, the team holds sprint review and retrospective meetings to gather feedback, celebrate achievements, and plan improvements for the next sprint.

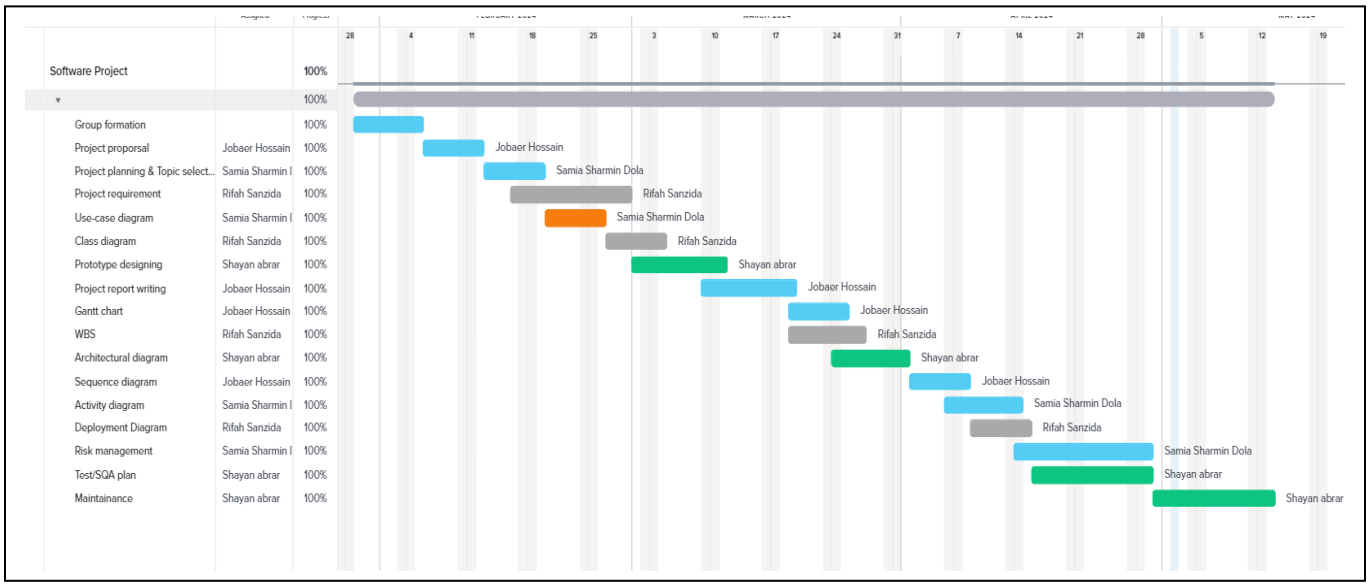
- **Adaptation:** Throughout the project, the Scrum team embraces change and adapts to evolving requirements, market conditions, and stakeholder needs.

By utilizing the Scrum framework, our project aims to promote transparency, collaboration, and adaptability, ultimately delivering a high-quality environmental conservation software that meets the needs of our users and stakeholders.

WBS


Tree plantation charity management system
Analysis
Requirement analysis
Identify and document the needs and expectations of clients regarding the projects features.
Problem Defination
Project Planning
Creating the basic mind-map of the whole project including risks and the solutions
Project Organization
Define the project structure, roles and responsibilities of team members to ensure efficient collaboration and accountability.
Risk Analysis
Identify potential risks and uncertainty that may impact project success.
Resource Management
Determine the required resources, tools and equipment needed to execute the project effectively.
Project Schedule
Develop a detailed timeline outlining the sequence of the project, milestone and deadline to guide project execution and monitoring.
Design
User Interface Design
Create visually appealing and intuitive interfaces for the platform to enhance user experience.
Form Designing
Develop interactive forms for seamless data input and user interaction
Home Page
Design the landing page layout to introduce the platform and its key features to users
Login
Create a login form with fields for username and password, enabling users to access their accounts securely
Registration
Design a registration form with fields for user details, such as name, email, and password, allowing new users to sign up for an account.
Setting
Develop a settings form for users to customize their account preferences, such as email notifications and profile information
Dashboard
Design the user dashboard interface with informative widgets and navigation menus for easy access to features and data.
User Profile
Create a profile form for users to manage their personal information, including profile picture, bio, and contact details.
Donation
Design a donation form with options for selecting donation amounts, payment methods, and donation purposes, facilitating user contributions to environmental causes.
Coding
Management Logic
Develop backend logic for managing user accounts, donations, and volunteer activities, ensuring smooth operation and organization of platform functionalities.
Enquiry Logic
Implement logic for handling user inquiries, feedback submissions, and support requests, enabling effective communication between users and administrators for prompt resolution of issues.
Installation
Hardware Verification
Ensure compatibility and functionality of hardware components required for the software installation.
Operating System
Prepare the operating system environment required for the software installation and configuration.
Planning
Develop a comprehensive plan outlining the steps and resources needed for successful software installation.
User Support Documentation
Create user-friendly documentation to guide users through the installation process and troubleshoot common issues.
instalation testing & verification
Conduct thorough testing to verify that the software is installed correctly and functions as expected
user communication & training
Provide clear communication to users regarding the installation process and offer training sessions to familiarize them with the software.
performance monitaring
Implement tools and processes to monitor the performance of the installed software and identify any performance issues.
instalation management
Oversee the entire installation process, coordinating tasks and resources to ensure timely and successful deployment of the software
Maintainence
Update
Implement regular updates to improve platform performance, fix bugs, and add new features in response to user feedback
Software maintainence
Provide ongoing support and maintenance services to ensure the platform remains operational, secure, and up-to-date with technological advancements.

Gantt chart -



Project Risks –

Project Risk, Impact, Risk level

Date of last review:

ID	Description of Risks	Impacts	Risk Response	Risk Level	Risk owner	Notes
1	Size estimate may be significantly low	Schedule Delays	Extend Timeline	Medium	Md Jobaer Hossain	Detailed requirements gathering essential.
2	Larger number of uses than planned	Maintenance Challenges	Capacity Planning	High	Shayan Abrar	Scalability planning essential.
3	Less reuse than planned	Decreased Productivity	Reuse Analysis	Medium	Rifah Sanzida	Regular code reuse analysis.
4	Delivery deadline will be tightened	Quality Compromise	Risk Mitigation Plan	High	Samia Sharmin Dola	Close monitoring, resource flexibility.
5	Funding will be lost	Reputation Damage	Seek Additional Funding	High	Shayan Abrar	Diversify the funding sources.
6	Technology will not meet expectations	Budget Overruns	Requirements Reevaluation	Medium	Rifah Sanzida	Detailed technology assessments.
7	Lack of training on tools	Increased Risk of Errors	Training Needs Assessment	High	Samia Sharmin Dola	Comprehensive trainings needed.
8	Inexperienced volunteers	Training Needs	Mentorship and Support	High	Md Jobaer Hossain	Guidance key for quality.
9	Addition of unknown features	Budget Overruns	Prototyping or Proof of Concept	Low	Rifah Sanzida	Strict change control measures.
10	Project approval takes longer than expected	Missed Opportunities	Early Engagement with Stakeholders	Medium	Samia Sharmin Dola	Early stakeholder engagement.
11	Decline in user engagement	Negative Word of Mouth	Community Building and Support	High	Shayan Abrar	Continuous user engagement strategies.
12	End-users resist system	Negative User Experience	Change Management Planning	Medium	Md Jobaer Hossain	Effective change management planning.

Technical Challenges:
Description: Developing a website with complex features such as donation processing, user authentication, and interactive maps may pose technical hurdles.

Impact: Delays in feature implementation, decreased product quality, and potential budget overruns.

Mitigation:

- **Feasibility Studies:** Before development, conduct comprehensive assessments to ensure technical feasibility, identifying potential hurdles in early stages.
- **Development Buffer:** Allocate additional time for Research and Development to account for unexpected technical challenges, ensuring timelines remain realistic.

Resource Constraints:
Description: Limited availability of skilled team members, including developers, designers, and testers, could hinder project progress.

Impact: Slow development pace, increased workload on existing team members, and compromised product quality.

Mitigation:

- **Skills Development:** Offer regular training sessions to upskill existing team members, maximizing resource efficiency.
- **Task Outsourcing:** Evaluate tasks for outsourcing potential, particularly for specialized skills not present within the team, to maintain project momentum.

Project Scope Expansion:
Description: Continuous addition of new features or changes to existing requirements beyond the project's initial scope may occur.

Impact: Extended project timelines, increased development costs, and potential conflicts with stakeholder expectations.

Mitigation:

- **Feature Prioritization:** Utilize a rigorous feature prioritization process, ensuring additions align with core project goals and user needs.
- **Change Control Process:** Implement a formal change control process, requiring stakeholder consensus for scope adjustments to prevent project bloat and focus drift.

Security Vulnerabilities:

Description: Inadequate attention to cybersecurity measures may expose the software to risks such as data breaches, unauthorized access, or malware attacks.

Impact: Compromised user data, damage to organizational reputation, and legal outcome.

Mitigation: Implement strong security protocols, conduct regular security audits and penetration testing, and stick to industry best practices for data protection.

User Adoption Challenges:
Description: Low user engagement or adoption rates due to usability issues, lack of awareness, or ineffective marketing strategies.

Impact: Reduced website traffic, diminished donation contributions, and failure to achieve project objectives.

Mitigation: Prioritize user experience (UX) design, gather user feedback through usability testing, and implement targeted marketing campaigns to promote the website.

External Dependencies:
Description: Reliance on third-party services, APIs, or external vendors for critical functionalities such as payment processing or mapping services.

Impact: Delays or disruptions caused by third-party downtime, service outages, or changes in service terms.

Mitigation: Identify and evaluate dependencies early in the project, establish contingency plans, and maintain open communication channels with external providers.

Project requirements

Main Webpage:

Homepage: The homepage serves as the entry point to the EverGreen Foundation's digital presence. It presents visitors with a visually appealing overview of the foundation's core mission, ongoing projects, and the positive impact it has achieved.

Navigation Menu: A user-friendly navigation menu is prominently displayed, allowing visitors to effortlessly explore different sections of the website. This includes options to learn more about the foundation (About Us), view current projects and initiatives (Projects), get in touch (Contact), and support the cause through donations (Donation).

Donation Section: Positioned strategically on the homepage, the donation section offers visitors a convenient and secure platform to contribute to the foundation's efforts. It provides clear information on how donations are used and encourages visitors to support environmental conservation.

Impact Stories: Engaging stories and testimonials from beneficiaries are showcased on the homepage, illustrating the real-world impact of the foundation's work. These stories serve to inspire visitors and reinforce the significance of their potential contributions, whether through donations or volunteering.

Login/Logout:

Who Can Access: Access to the login/logout functionality is available to all users of the website, including visitors, donors, volunteers, and administrators.

User Authentication: To access personalized features such as profile management and donation tracking, users are required to log in using their credentials (e.g., username/email and password).

Session Management: Upon successful login, a session is initiated, allowing users to navigate different sections of the website without having to reauthenticate their identity.

Logout: Users can log out of their accounts at any time by clicking on the logout button, which terminates the active session and redirects them to the homepage or login page.

User Dashboard:

Profile Management: Within the user dashboard, individuals can create and manage their personal profiles. This includes updating contact information, preferences, and viewing their donation history. The profile management feature ensures that users have control over their engagement with the foundation.

Donation Tracking: Users can access a comprehensive overview of their donation history, including details such as the amount donated, the specific projects supported, and the resulting impact achieved. This transparent tracking system fosters trust and accountability between the foundation and its donors.

Ordering Trees for Planting: Within the user dashboard, individuals have the unique opportunity to contribute directly to environmental conservation efforts by ordering trees for planting in their area. This feature empowers users to take solid action towards greening their communities and offsetting carbon emissions.

Communication Channels: To facilitate seamless communication, the user dashboard provides various channels for users to engage with foundation administrators. Whether seeking assistance, providing feedback, or simply reaching out with inquiries, users can utilize messaging systems or

support tickets for efficient communication.

Donor Dashboard:

Donation Management: Donors are empowered to manage their contributions effectively through the donor dashboard. They can review and manage recurring donations, initiate one-time contributions, and access detailed reports on their donation history. This feature streamlines the donation process and enhances donor engagement.

Impact Reports: Detailed impact reports are available to donors, highlighting the tangible outcomes of their contributions. From the number of trees planted to the amount of carbon offset achieved, donors gain insights into the positive change their donations have enabled, fostering a sense of pride and fulfillment.

Recognition: The donor dashboard includes features for recognizing and appreciating donors for their invaluable support. Whether through digital certificates, virtual badges, or personalized acknowledgment letters, donors are celebrated for their generosity and commitment to environmental conservation.

Feedback Mechanism: Donor's receivers are encouraged to provide feedback to the donor dashboard, enabling them to share their thoughts, suggestions, and overall experiences. This feedback mechanism helps the foundation continuously improve its donor engagement strategies and tailor future projects to align with donor preferences and also helps to encourage the donor to donate.

Volunteer Dashboard:

Event Registration: Volunteers can easily explore and register for upcoming events and activities through the volunteer dashboard. From tree planting initiatives to community clean-up efforts, volunteers have access to a comprehensive list of opportunities, allowing them to contribute meaningfully to the foundation's mission.

Training Resources: The volunteer dashboard provides access to many training materials and resources to equip volunteers with the necessary knowledge and skills for their roles. These resources may include instructional guides, videos, and educational materials tailored to specific volunteer tasks and responsibilities.

Task Assignment: Volunteers receive clear task assignments and responsibilities through the dashboard, ensuring efficient project execution and coordination. Assignments may vary based on volunteer skills, availability, and preferences, allowing for effective utilization of volunteer resources.

Performance Tracking: Volunteer performance and contributions are tracked systematically within the dashboard, allowing administrators to recognize and reward top performers. Metrics

such as volunteer hours, tasks completed, and impact achieved provide valuable insights into volunteer engagement and effectiveness.

Admin Dashboard:

User Management: Administrators have full control over user management functionalities, including user registration, authentication, and account permissions. The admin dashboard allows for seamless management of user accounts, ensuring a secure and personalized user experience.

Content Management: The admin dashboard empowers administrators to update and manage website content effortlessly. From text and images to videos and news updates, administrators can keep the website dynamic and engaging, reflecting the foundation's latest initiatives and achievements.

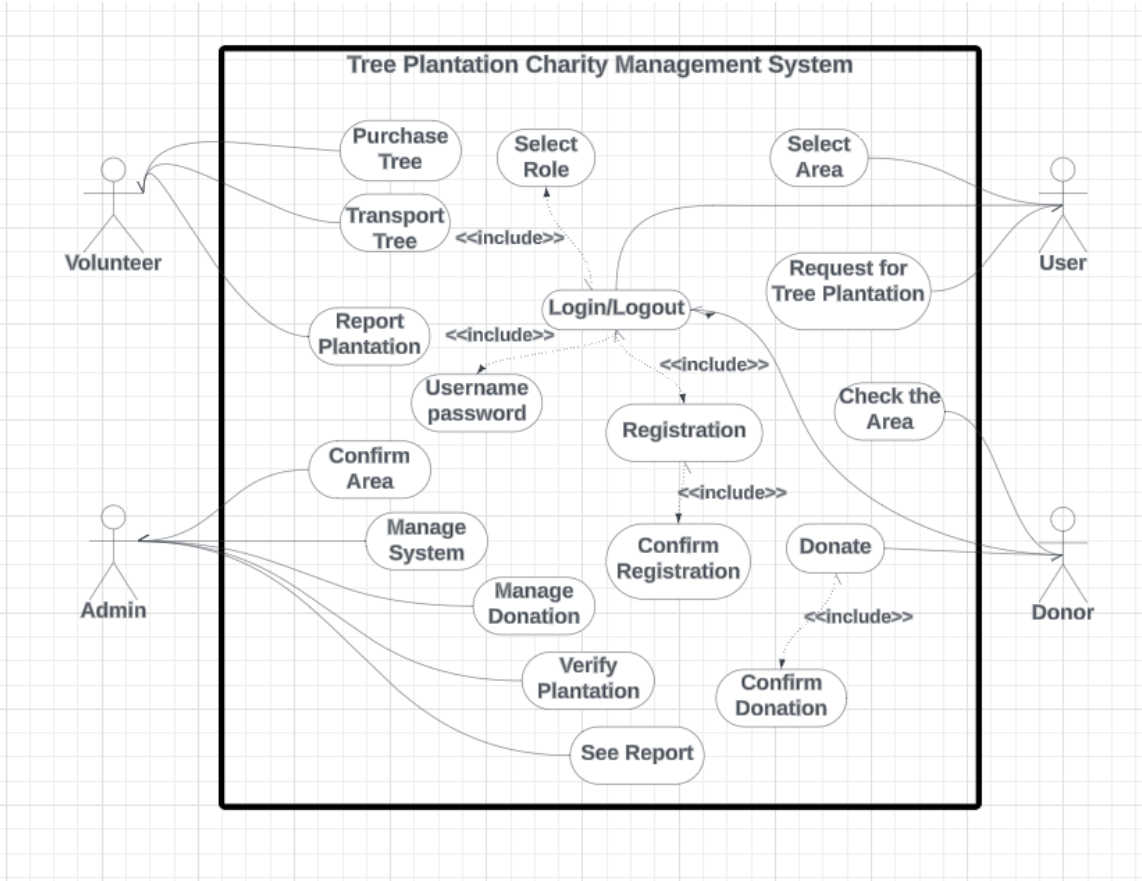
Donation Monitoring: Administrators can monitor donation activities in real-time through the admin dashboard. This includes tracking incoming donations, analyzing donor demographics, and evaluating fundraising campaign performance to inform strategic decision-making and resource allocation.

Volunteer Coordination: The admin dashboard serves as a centralized hub for volunteer coordination, facilitating event planning, volunteer recruitment, training, and coordination efforts. Administrators can efficiently manage volunteer resources and ensure the successful execution of various projects and initiatives.

Non-functional requirements

- Security: The system maintains the privacy of user information.
- Ease of use: The system is very user friendly.
- Reliability: Our system will run without a failure for a given period under predefined conditions
- Availability: Our system is accessible for all type of user.
- Performance: The system returns the results quickly.

Use-Case diagram


Tree Plantation Charity Management System
Purchase Tree
Select Role
Select Area
Transport Tree
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Request for Tree Plantation
Login/Logout
Report Plantation
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Username password
Registration
Check the Area
Confirm Area
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Manage System
Confirm Registration
Donate
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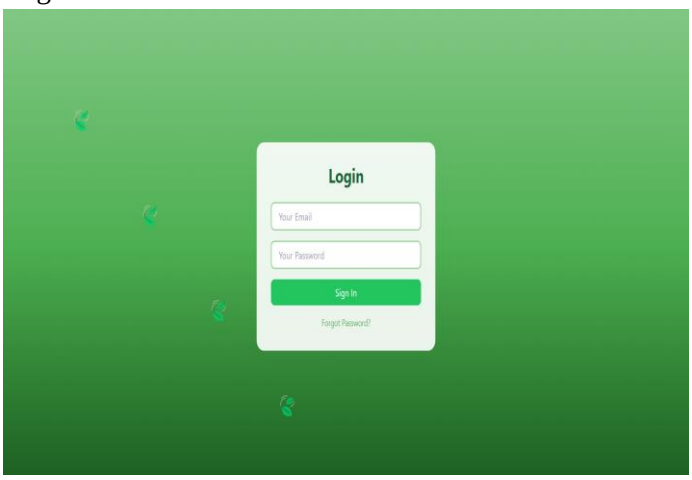
Verify Plantation
Confirm Donation
See Report
Volunteer
User
Admin
Donor

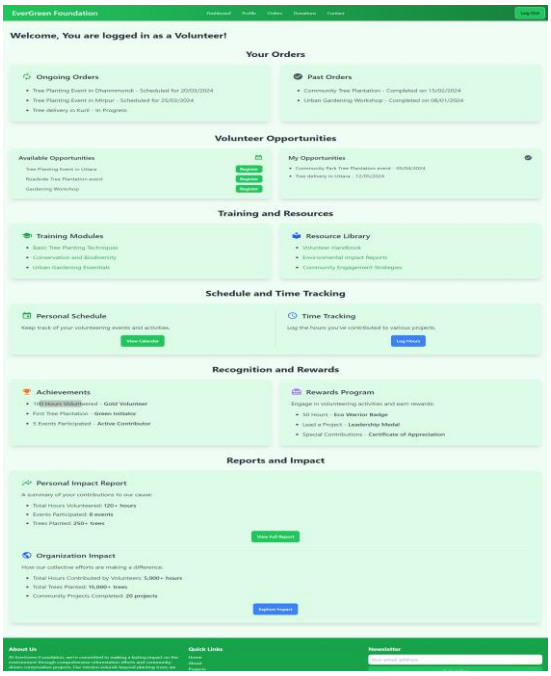
Prototype design

For Desktop

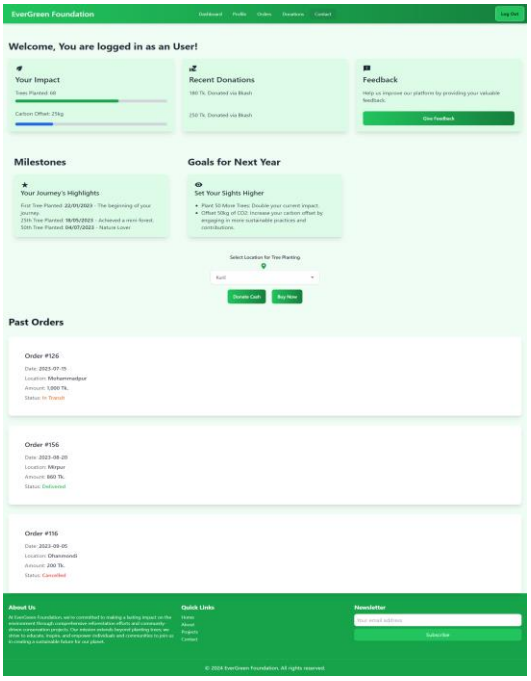
Login-



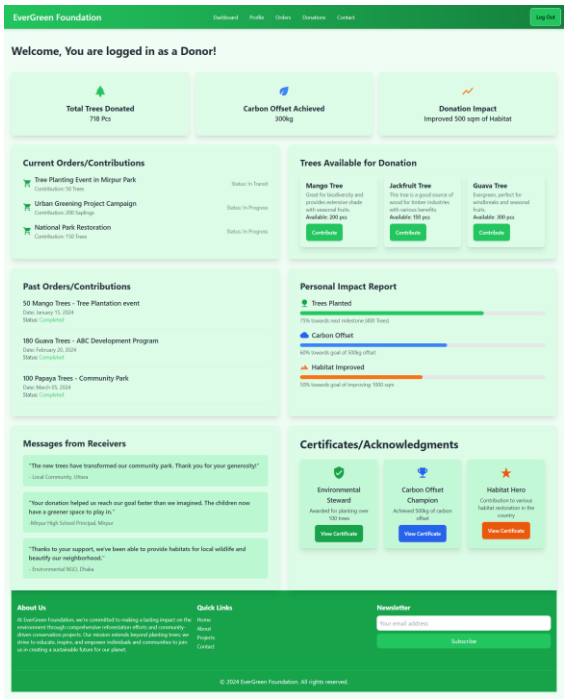
Volunteer Dashboard-



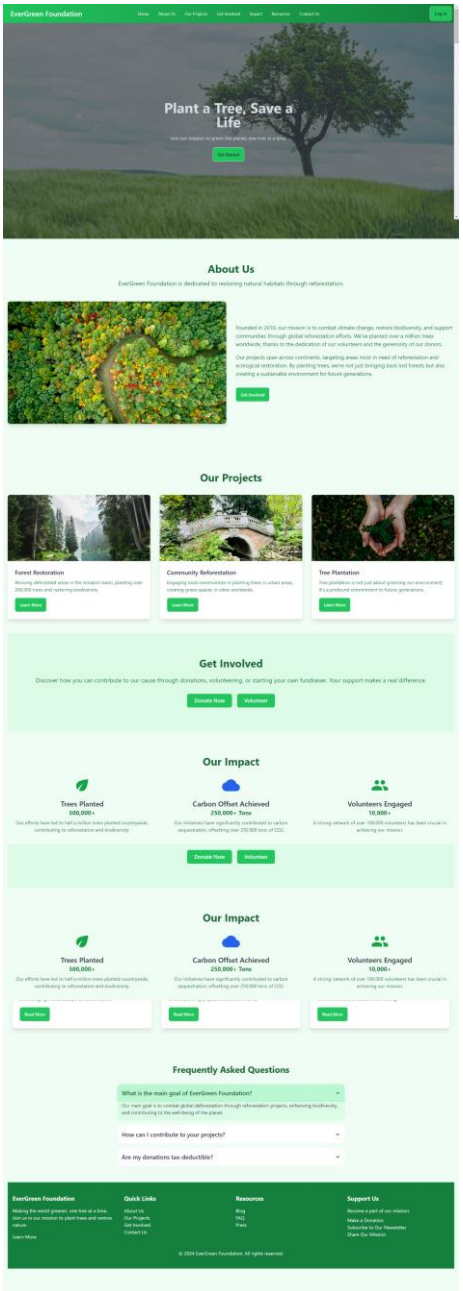
User Dashboard-



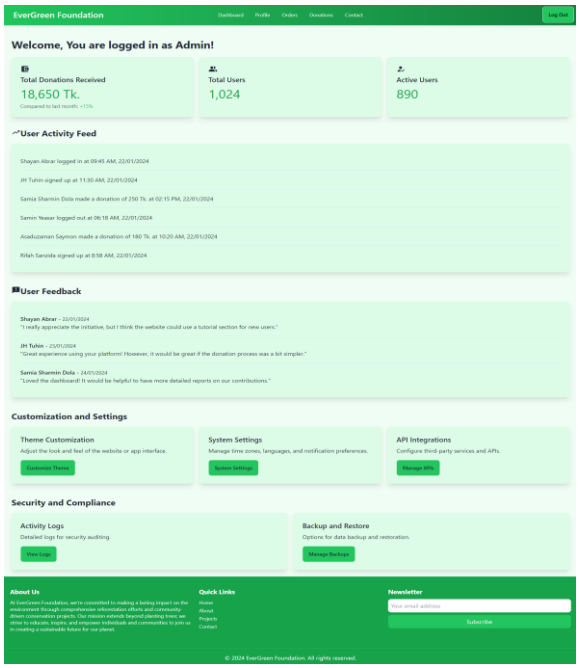
Donor Dashboard-



Main Webpage-

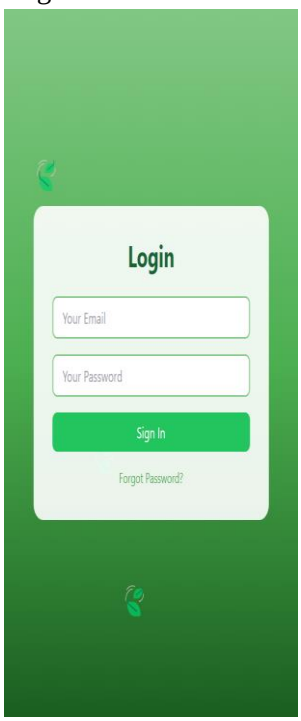


Admin Dashboard-

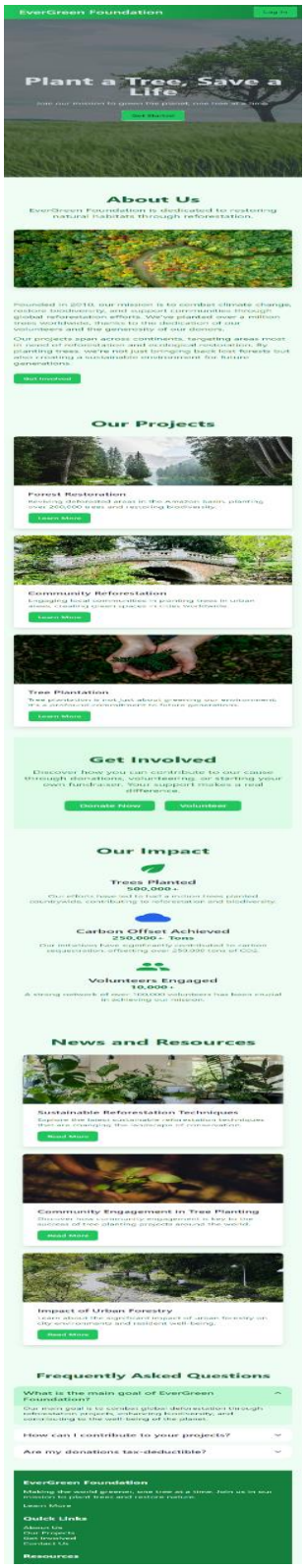


For mobile:

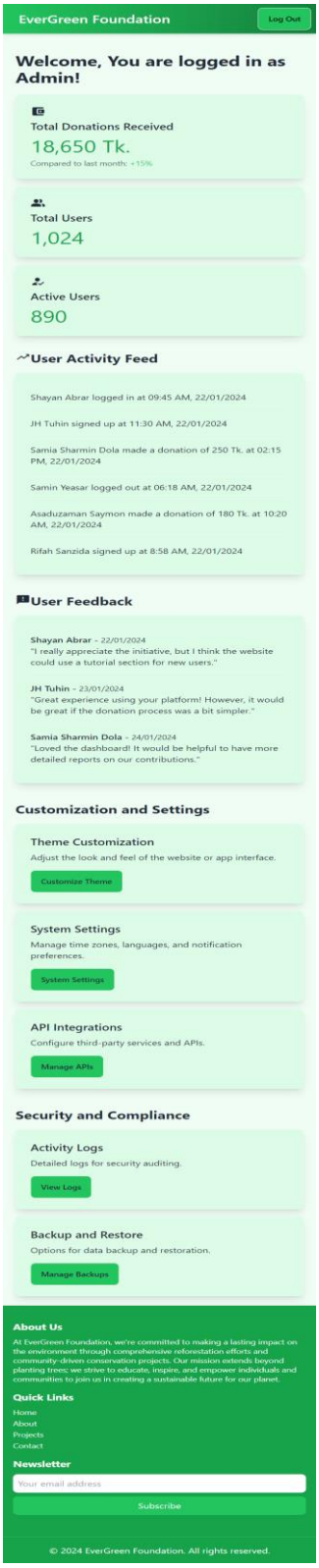
Login



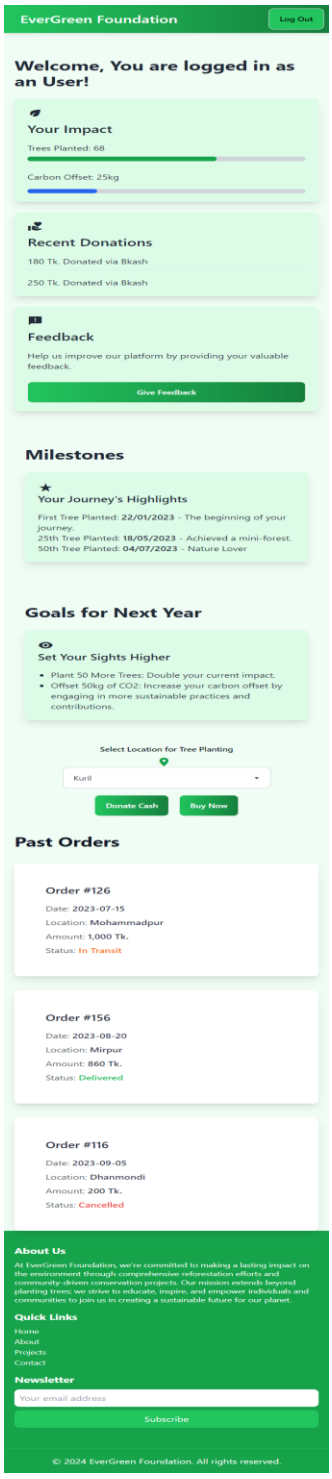
Main Webpage-



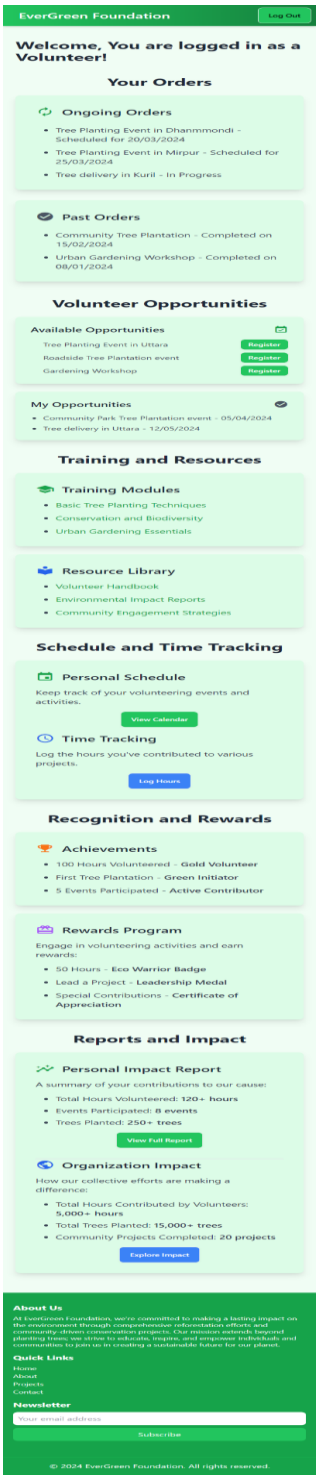
Admin Dashboard-



User Dashboard-

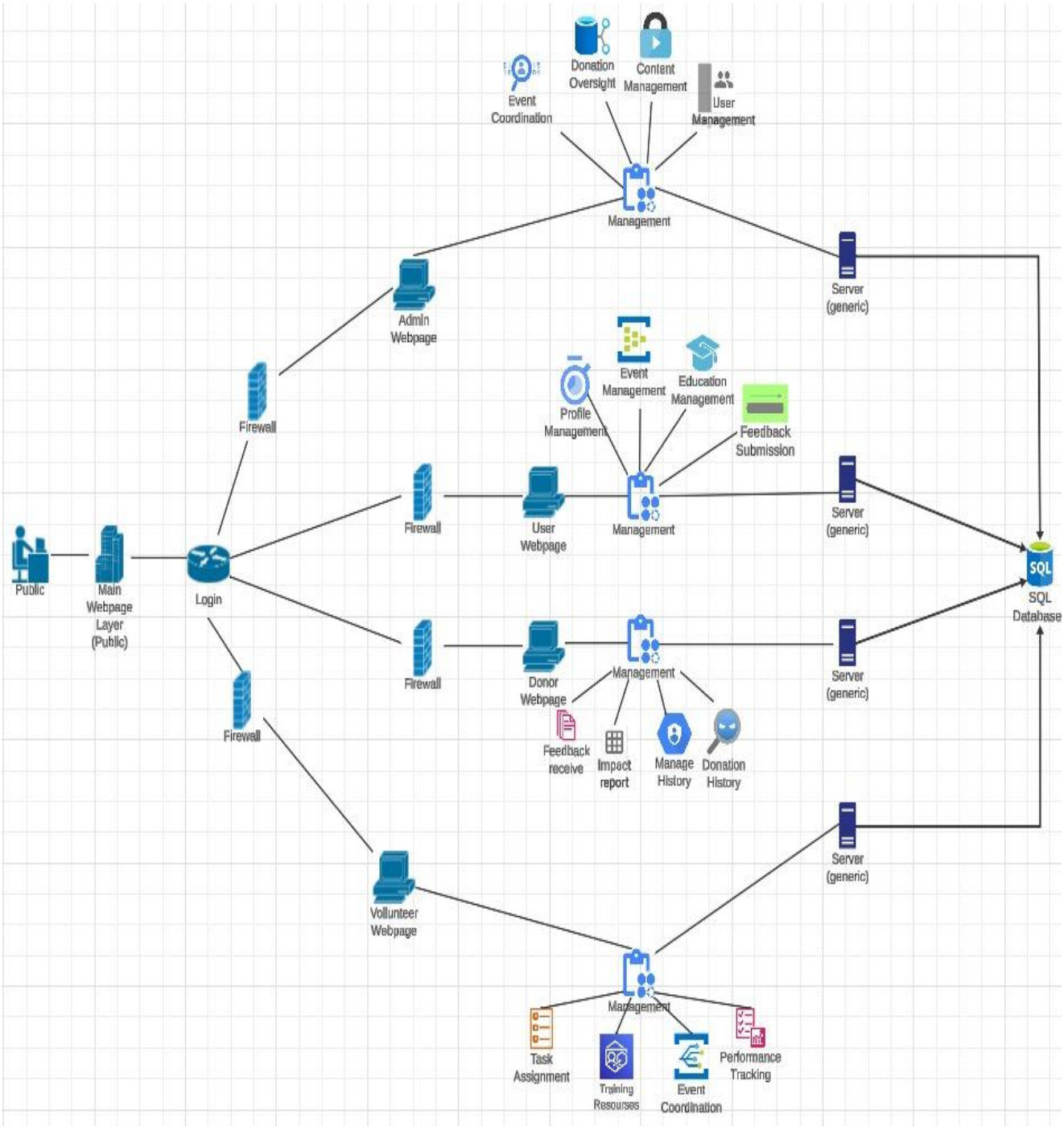


Volunteer Dashboard-

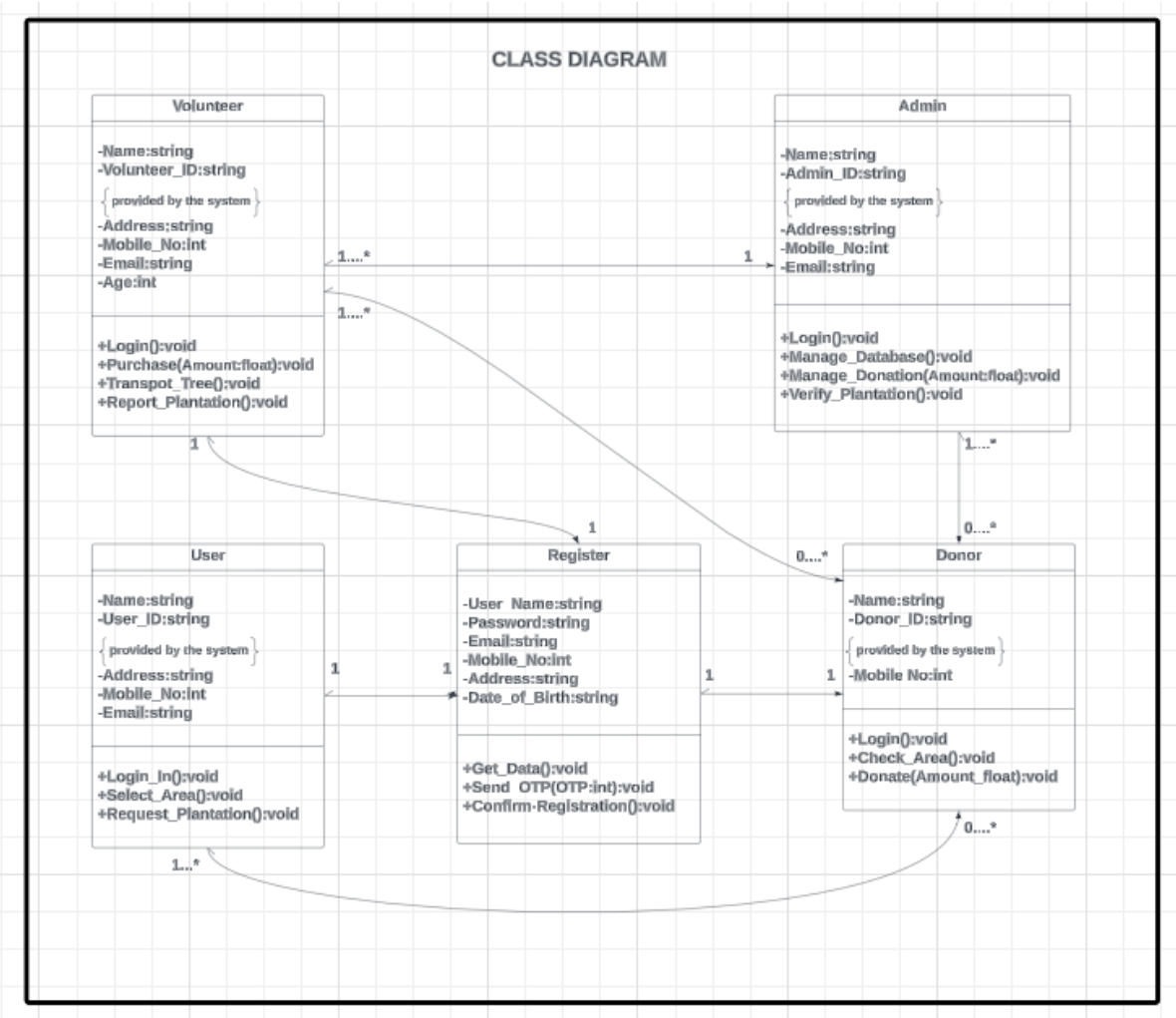


Donor Dashboard-

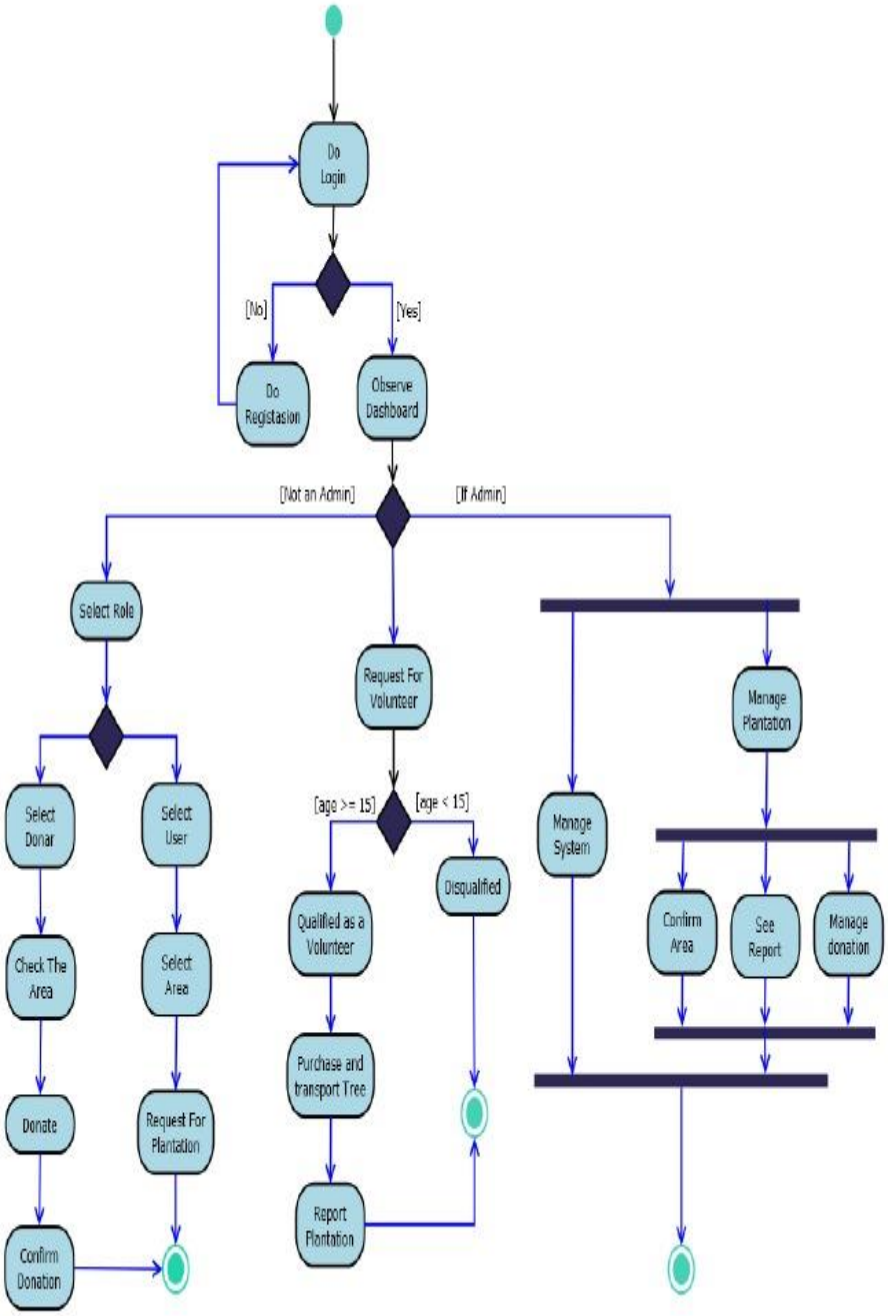
Architectural diagram



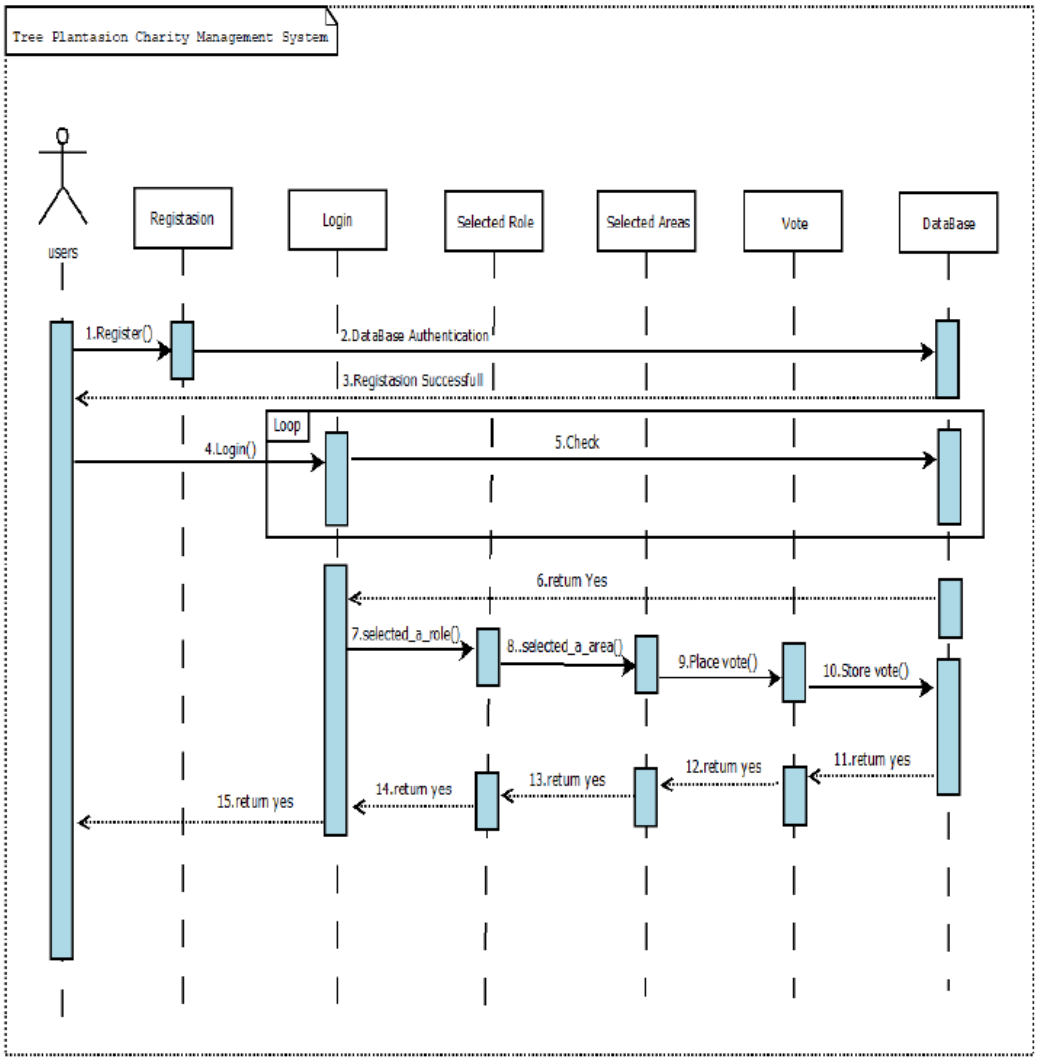
Class diagram



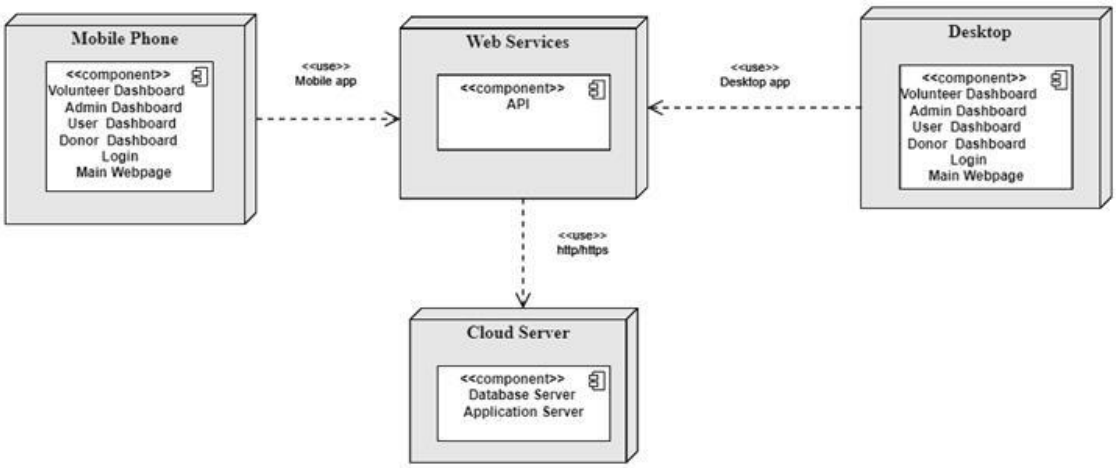
Activity Diagram-



Sequence Diagram:



Deployment diagram-



Test/SQA Plan

Test Case ID	EVG_01	Test Case Description	Test the Website Access and Navigation for EverGreen Foundation Website		
Created By	Shayan Abrar	Reviewed By	DR. KAMRUDDIN MD. NUR	Version	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	Date Tested	10-Apr-2024	Test Case (Pass/Fail/Not Executed)	Pass

S #	Prerequisites:
1	Access to a Chrome Browser
2	A stable internet connection
3	
4	

S #	Test Data
1	www.EvergreenFoundation.com

Test Scenario

Verify that the main sections of the EverGreen Foundation's website are accessible and navigational elements function correctly.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Open the Chrome browser and	The homepage of the EverGreen	As Expected	Pass

	navigate to the EverGreen Foundation's website by entering the provided URL.	Foundation should load successfully without errors.		
2	Verify the presence and functionality of the navigation bar, including links to Home, About Us, Our Projects, Get Involved, Impact, Resources, Contact Us, and Log In.	Each section in the navigation bar should be clickable, leading to the respective page or section without errors.	As Expected	Pass
3	Scroll down to the footer and verify the presence and functionality of footer links, including Quick Links, Resources, and Support Us.	Each link in the footer should be clickable and direct the user to the correct page or section as indicated.	As Expected	Pass
4	From the homepage, click on the "Log In" button and verify the page transition to the login page.	The login page should load successfully, displaying fields for email and password entry.	As Expected	Pass
5	On the login page, check for the presence of the "Forgot Password?" link and verify its functionality.	Clicking the "Forgot Password?" link should direct the user to a password reset page or prompt.	As Expected	Pass
6	Using the navigation bar, access the "About Us" section and verify that the content loads correctly and matches the expected	The "About Us" page should display detailed information about the EverGreen Foundation without loading issues.	As Expected	Pass

	information.			
7	Access the "Contact Us" section through the navigation bar and verify the presence of a contact form or contact information.	The "Contact Us" page should include a form for inquiries or display contact information (email, phone number) of the EverGreen Foundation.	As Expected	Pass
8	Attempt to access the website using a different browser (e.g., Firefox, Safari) to verify cross-browser compatibility.	The website should load and function correctly across different browsers, with all navigational elements and links working as expected.	As Expected	Pass

Test Case ID	EVG_02	**Test Case Description**	Test Login Form Functionality and Validation on EverGreen Foundation Website		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	**Date Tested**	10-Apr-2024	**Test Case (Pass/Fail/Not Executed)**	Pass

S #	Prerequisites:
1	Access to a Chrome Browser
2	User is on the EverGreen Foundation's Login form page
3	

S #	Test Data
1	Valid Email: user@gmail.com, vollunteer@gmail.com, donor@gmail.com, admin@gmail.com.
2	Password:123

Test Scenario

Verify that Login form field validations work as expected, forms can be submitted successfully, and data is handled properly.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to the specific form page on the EverGreen Foundation website.	The form page loads successfully with all fields visible.	As Expected	Pass
2	Leave all fields blank and attempt to submit the form.	Validation messages appear indicating required fields.	As Expected	Pass
3	Enter an invalid email format in the email field and attempt to submit the form.	A validation message appears indicating the email is in an incorrect format.	As Expected	Pass
4	Fill out the form with all valid and required information except the email field. Use the invalid email format for this step.	The form submission should be blocked with a prompt to enter a valid email address.	As Expected	Pass
5	Correct the email field with a valid email address and fill in all other required fields correctly. Submit the form.	The form is submitted successfully. A success message appears or the user is redirected to a confirmation page.	As Expected	Pass
6	Verify the handling of the form data. This step may require backend access or confirmation from the system admin to ensure data is stored or processed as expected.	Form data is correctly handled as per the website's data handling protocol.	As Expected	Pass

7	Attempt to submit the form with valid data again but with the network disabled	An appropriate error message should appear, indicating the submission failed due to network issues.	As Expected	Pass
8	Re-enable the network and resubmit the form with valid information.	The form is submitted successfully, and the appropriate success message is shown.	As Expected	Pass

Test Case ID	EVG_03	**Test Case Description**	Test the User Account Creation and Management functionalities, including Account Creation, Profile Editing, and Password Reset.		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	**Date Tested**	10-Apr-2024	**Test Case (Pass/Fail/Not Executed)**	Pass

S #	Prerequisites:
1	Access to a Chrome Browser
2	A stable internet connection

S #	Test Data
1	Valid Email: user@gmail.com, vollunteer@gmail.com, donor@gmail.com, admin@gmail.com.
2	Password:123
3	New Password: 321

Test Scenario

Verify the entire process of a user creating an account, updating their profile information, and successfully resetting their password on the EverGreen Foundation's website.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to the EverGreen Foundation's website's login page and locate the "Sign Up" or "Create Account" button.	User should be directed to the account creation page.	As Expected	Pass
2	Fill in all required fields, including a valid email address and a secure password. If there are optional fields, fill in at least one.	All fields accept input as expected.	As Expected	Pass
3	Submit the form and complete any email verification steps, if applicable.	User receives a verification email and successfully verifies the email address, completing the account creation process.	As Expected	Pass
4	Log in to the newly created account and navigate to the "Edit Profile" or "Account Settings" section.	User accesses the profile editing section successfully.	As Expected	Pass
5	Make changes to various fields, such as name, contact information, and any preferences available. Save the changes.	Changes are saved successfully without errors.	As Expected	Pass
6	Log out and log back in, verify that all changes have been retained.	All edited information persists after logging out and back in.	As Expected	Pass

7	Log out if currently logged in. Navigate to the login page and select the "Forgot Password?" link.	User is directed to the password reset request page.	As Expected	Pass
8	Enter the email address used for account creation and submit the request.	User receives a password reset email.	As Expected	Pass
9	Follow the instructions in the email to reset the password, creating a new password.	Password is successfully reset, and the user can log in with the new password.	As Expected	Pass

Test Case ID	EVG_04	**Test Case Description**	Test Content Management System (CMS) functionalities for Admin, User, Volunteer, and Donor roles		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	**Date Tested**	10-Apr-2024	**Test Case (Pass/Fail/Not Executed)**	Pass

S #	Prerequisites:
1	Access to a Chrome Browser
2	A stable internet connection
3	Valid login credentials for each role
4	

S #	Test Data
1	Valid Email: user@gmail.com, vollunteer@gmail.com, donor@gmail.com, admin@gmail.com.
2	Password:123

Test Scenario

Verify CMS functionalities, including content updates and role-based permissions, are correctly

implemented.

Step #	Roles	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Admin	Log in as an Admin and attempt to update website content through the CMS.	Admin should be able to update content, and changes should be immediately reflected on the website.	As Expected	Pass
2	Admin	Verify Admin permissions to access and modify all sections of the CMS.	Admin should have permissions to access and modify content across all sections of the CMS.	As Expected	Pass
3	User	Log in as a User and try to access CMS functionalities.	User should have limited or no access to CMS functionalities, based on the website's permission settings.	As Expected	Pass
4	User	Attempt to navigate and use page-specific functionalities available to Users.	User should be able to freely use functionalities and view content specific to their role, without encountering permission errors.	As Expected	Pass
5	Volunteer	Log in as a Volunteer and access the CMS to update volunteer-related content, if applicable.	Volunteer should be able to update certain content related to volunteering activities, subject to permission settings.	As Expected	Pass
6	Volunteer	Navigate and utilize page buttons and	Volunteer should navigate and use	As Expected	Pass

		functionalities specific to Volunteers.	their specific page functionalities without issues.		
7	Donor	Log in as a Donor and attempt to access CMS functionalities, if applicable.	Donor should have permissions tailored to their role, potentially including donation history updates or profile editing.	As Expected	Pass
8	Donor	Test page navigation and role-specific functionalities for Donors.	Donor should be able to navigate their donation dashboard and use all functionalities without permission errors.	As Expected	Pass

Test Case ID	EVG_05	**Test Case Description**	Test the Website's performance under varying conditions to ensure optimal load times and robustness under high traffic scenarios.		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	**Date Tested**	10-Apr-2024	**Test Case (Pass/Fail/Not Executed)**	Pass

S #	Prerequisites:
1	Access to Google PageSpeed Insights and JMeter.
2	A stable internet connection
3	Test every roles accounts and sample form data.

S #	Test Data
1	URLs for testing: Every roles dashboard including homepage and login page
2	Credentials for login simulation.
3	Data for form submissions (e.g., donations, applications).

Test Scenario

Verify page load times and website behavior under high traffic across multiple pages including login and image-heavy pages.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	**Load Time Test - Home Page:** Use performance testing tools like Google PageSpeed Insights to measure the load time of the website's home page.	The home page should load in under 3 seconds for users on a standard broadband connection..	As Expected	Pass
2	**Load Time Test – Every role's Dashboard:** Measure the load time of the User Dashboard page after login using the same tool.	The Dashboard pages should load in under 3 seconds for authenticated users on a standard broadband connection.	As Expected	Pass
3	**Stress Testing - Simultaneous Logins:** Utilize a tool like JMeter to simulate multiple	The website should handle simultaneous login attempts without	As Expected	Pass

	users (e.g., 500 users) attempting to log in simultaneously.	significant delays or errors, maintaining a response time under 5 seconds for each user.		
4	**Stress Testing - High Traffic Navigation:** Simulate high traffic navigating through various pages of the website (e.g., Home, About Us, Volunteer Sign-up) to determine site behavior under load.	Page navigation under high traffic should not significantly increase load times, aiming to keep page responses under 5 seconds.	As Expected	Pass
5	**Load Time Test - Image Heavy Page:** Measure the load time of any image-heavy pages, such as the gallery or project pages, using PageSpeed Insights.	Image-heavy pages should employ lazy loading techniques and optimized images to maintain a load time under 5 seconds.	As Expected	Pass
6	**Stress Testing - Data Submission:** Use automation tools to simulate the submission of data (e.g., donation forms, volunteer applications) by a large number of users concurrently.	The website should process data submissions without errors or significant delays, with form submission response times remaining under 5 seconds.	As Expected	Pass
7	**Stress Testing - Database Load:** Assess how the website's backend database handles queries under	Database queries should remain efficient under stress, with query response times not exceeding 2 seconds even	As Expected	Pass

	high load (e.g., retrieving user information, donation records).	under high load.		
8	**Load Time Test - Mobile Performance:** Evaluate the website's load time on mobile devices using a tool like Google's Mobile-Friendly Test or PageSpeed Insights for mobile.	The website should be optimized for mobile users, maintaining a load time of under 4 seconds on standard mobile connections.	As Expected	Pass

Test Case ID	EVG_06	**Test Case Description**	Ensure the website supports keyboard shortcuts and complies with website-making rules and guidelines		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin incorporated in version 1.0

Tester's Name	Shayan Abrar	Date Tested	10-Apr-2024	Test Case (Pass/Fail/Not Executed)	Pass

S #	Prerequisites:
1	Access to a Chrome Browser
2	A stable internet connection
3	Knowledge of standard keyboard shortcuts for web navigation (e.g., Tab, Shift + Tab, Enter)

S #	Test Data
1	List of expected keyboard shortcuts and their functions

Test Scenario

Verify that the EverGreen Foundation's website is accessible via keyboard shortcuts and complies with essential web accessibility standards.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to the EverGreen Foundation's website using the Chrome browser. Use the **Tab** key to move through interactive elements on the homepage.	Users should be able to navigate through all interactive elements (links, buttons) in a logical order.	As Expected	Pass
2	While navigating, use **Shift + Tab** to move backwards through interactive elements.	The focus should move in the reverse order, allowing users to navigate back through elements.	As Expected	Pass
3	Use the **Enter** key to select links or buttons that are currently focused.	The appropriate action for the focused element (e.g., link navigation, button activation) should	As Expected	Pass

		occur..		
4	On pages with forms (e.g., the login or contact page), use **Tab** to move between form fields, and use **Enter** to submit the form.	Users should be able to fill out and submit forms using only the keyboard.	As Expected	Pass
5	Test any custom keyboard shortcuts documented for the website, if available, to perform specific actions.	Custom shortcuts should perform their expected functions correctly.	As Expected	Pass
6	Use accessibility testing tools (e.g., WAVE, AXE) to analyze the website for compliance with Web Content Accessibility Guidelines (WCAG) guidelines.	The tool should report minimal to no accessibility issues, indicating compliance with WCAG standards.	As Expected	Pass
7	Verify the website's functionality without the use of a mouse, ensuring all actions can be completed using the keyboard alone.	All website functionalities (navigation, form submission, page access) should be fully operable via keyboard.	As Expected	Pass

Test Case ID	EVG_07	**Test Case Description**	Test the Website's Responsive Design Across Multiple Devices		
Created By	Shayan Abrar	**Reviewed By**	DR. KAMRUDDIN MD. NUR	**Version**	1.0

QA Tester's Log

Review comments by Dr.Kamruddin

incorporated in version 1.0

Tester's Name	Shayan Abrar	Date Tested	10-Apr-2024	Test Case (Pass/Fail/Not Executed)	Pass

S #	Prerequisites:
1	Access to multiple devices (mobile, tablet, desktop) or a responsive design testing tool.

S #	Test Data
1	Devices: Mobile (Portrait & Landscape), Tablet (Portrait & Landscape), Desktop.
2	Browsers: Chrome, Firefox, Safari.

Test Scenario

Ensure the website provides a seamless experience across all screen sizes, with specific attention to mobile and tablet compatibility and layout breakpoints.

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Test the website on a mobile device in portrait mode.	The website should scale correctly, with all elements visible and functional without the need to horizontally scroll.	As Expected	Pass
2	Test the website on a mobile device in landscape mode.	The website should adjust to the wider view, improving readability and interaction without layout issues.	As Expected	Pass
3	Test the website on a tablet device in portrait mode..	The layout adjusts to utilize the available screen space effectively, with a balanced distribution of content and navigational elements..	As Expected	Pass

4	Test the website on a tablet device in landscape mode.	The website should offer an optimized experience that leverages the additional width, potentially showing more content or a different layout structure.	As Expected	Pass
5	Test the website on a desktop browser. Gradually reduce the browser window width.	The website should hit several layout breakpoints, where the design adjusts to accommodate the new viewport size without breaking the layout or hiding necessary information.	As Expected	Pass
6	Verify the functionality of dropdown menus, buttons, and links at various screen sizes.	All interactive elements should function correctly, with touch-friendly sizes on smaller screens.	As Expected	Pass
7	Test form elements (like the login form) on all devices to ensure they are usable.	Forms should be easy to fill out, with appropriately sized fields and clear, accessible labels and instructions.	As Expected	Pass
8	Test images and multimedia content for proper scaling and performance.	Images and videos should scale correctly without distortion, and not significantly impact the page load times on mobile networks.	As Expected	Pass
9	Test the website's navigation on all device types to ensure it remains intuitive and	Navigation should adjust for the device, possibly shifting to a hamburger menu	As Expected	Pass

	accessible.	on smaller screens, allowing users to easily navigate the site.		
10	Test the readability of text content across devices.	Text should be legible without needing to zoom in, with appropriate font sizes and line spacing for comfortable reading on small screens.	As Expected	Pass

Our Test/SQA (Software Quality Assurance) Plan outlines the strategies and procedures for ensuring the quality and reliability of our website throughout its development lifecycle. By implementing comprehensive testing practices, we aim to identify and resolve defects, optimize performance, and deliver a seamless user experience.

Objectives:
Ensure Functionality: Verify that all website features and functionalities perform as intended according to specified requirements.
Validate Usability: Assess the user interface (UI) and user experience (UX) design to ensure ease of navigation, accessibility, and user satisfaction.
Ensure Security: Identify and mitigate potential security vulnerabilities to safeguard user data and protect against cyber threats.
Optimize Performance: Evaluate the website's performance metrics, including speed, responsiveness, and scalability, to deliver optimal user experiences across devices and network conditions.
Validate Compatibility: Test the website across various browsers, devices, and operating systems to ensure consistent performance and compatibility.
Verify Compliance: Ensure compliance with relevant standards, regulations, and best practices related to web development, data privacy, and accessibility.

Testing Approach:
Unit Testing: Developers conduct unit tests to validate individual components and functions, ensuring they operate correctly in isolation.
Integration Testing: Testers verify the interaction and integration of different modules or components to ensure seamless communication and data flow.
System Testing: Validate the overall functionality and behavior of the website as a complete system, including user interactions, data processing, and error handling.
User Acceptance Testing (UAT): Involve end-users or stakeholders to evaluate the website's usability, functionality, and alignment with their needs and expectations.
Security Testing: Conduct penetration testing, vulnerability assessments, and security audits to identify and address potential security vulnerabilities and weaknesses.

Performance Testing: Evaluate the website's performance under various conditions, including load testing, stress testing, and scalability testing, to ensure optimal performance and responsiveness.
Compatibility Testing: Test the website's compatibility across different browsers, devices, and platforms to ensure consistent behavior and user experience.
Accessibility Testing: Assess the website's compliance with accessibility standards (e.g., WCAG) to ensure inclusivity and accessibility for users with disabilities.

Testing Tools and Techniques:
Automated Testing: Utilize automated testing tools and frameworks (e.g., Selenium, Cypress) to streamline testing processes and accelerate test execution.
Manual Testing: Conduct manual testing by human testers to validate subjective aspects such as usability, visual design, and content accuracy.
Security Scanning Tools: Employ security scanning tools (e.g., OWASP ZAP, Burp Suite) to identify and address security vulnerabilities, including SQL injection, cross-site scripting (XSS), and CSRF.
Performance Monitoring Tools: Use performance monitoring tools (e.g., Google Lighthouse, WebPageTest) to assess and optimize website performance metrics, including page load times, resource utilization, and rendering performance.

Test Documentation:
Test Cases: Develop comprehensive test cases covering all functional requirements, edge cases, and user scenarios to guide testing activities.
Test Scripts: Create automated test scripts to automate repetitive test cases and streamline regression testing processes.
Test Reports: Generate test reports documenting test results, including defects identified, test coverage, and performance metrics, to facilitate decision-making and issue resolution.

By adhering to the Test/SQA Plan and implementing rigorous testing practices, we ensure the delivery of a high-quality website that meets user expectations, complies with security standards, and delivers exceptional user experiences across all dimensions.

Maintenance Plan

The Maintenance Plan outlines the strategies and procedures for ensuring the ongoing functionality, stability, and sustainability of our website following its deployment. It encompasses activities aimed at addressing issues, implementing updates, and enhancing the website to meet evolving user needs and technological advancements.

Objectives:
Address Issues Promptly: Establish a system for identifying and addressing bugs, errors, and performance issues promptly to minimize disruptions and maintain user satisfaction.
Implement Updates: Regularly update the website to incorporate new features, enhancements, security patches, and bug fixes to improve functionality and address emerging threats.

Enhance User Experience: Continuously evaluate user feedback and analytics data to identify areas for improvement and implement enhancements to optimize the user experience.
Ensure Compatibility: Monitor and ensure compatibility with evolving web standards, browsers, devices, and operating systems to maintain consistent performance across platforms.
Optimize Performance: Monitor and optimize website performance metrics, including speed, responsiveness, and scalability, to ensure optimal user experiences and mitigate performance degradation.
Ensure Security: Implement security measures, updates, and best practices to protect against evolving cybersecurity threats and vulnerabilities and safeguard user data.

Maintenance Approach:
Issue Tracking and Resolution: Utilize issue tracking systems and workflows to efficiently manage and prioritize reported issues, track resolutions, and communicate updates with stakeholders.
Scheduled Updates: Implement a schedule for regular updates and maintenance activities, including software patches, security updates, and feature enhancements, to ensure the website remains current and secure.
User Feedback Integration: Establish channels for collecting user feedback, suggestions, and bug reports and incorporate them into the maintenance process to address user needs and improve satisfaction.
Proactive Monitoring: Implement monitoring tools and processes to proactively identify performance issues, security vulnerabilities, and potential system failures and take preemptive actions to mitigate risks.
Regression Testing: Conduct regression testing after updates and changes to ensure that existing functionalities remain intact and new features do not introduce unintended consequences or regressions.
Backup and Disaster Recovery: Implement robust backup and disaster recovery strategies to safeguard against data loss, system failures, or cyber attacks and ensure business continuity in the event of unforeseen incidents.

Maintenance Documentation:
Change Logs: Maintain detailed change logs documenting all updates, modifications, and enhancements made to the website, including the rationale behind each change and its impact on functionality.
Maintenance Records: Keep records of maintenance activities, including issue reports, resolutions, update schedules, and performance metrics, to track progress, measure effectiveness, and inform future maintenance efforts.
User Communications: Communicate maintenance schedules, updates, and important announcements to users and stakeholders through newsletters, notifications, or dedicated communication channels to manage expectations and minimize disruptions.

By implementing a proactive and comprehensive Maintenance Plan, we ensure the continued reliability, functionality, and security of our website, enabling us to deliver value to users, adapt to changing requirements, and sustain long-term success in the digital landscape.

Conclusion:

In conclusion, our project aims to create a user-friendly software for the EverGreen Foundation, facilitating donations, promoting environmental awareness, and fostering community engagement. By providing easy access to information, donation opportunities, and impactful stories, we strive to inspire individuals to contribute to reforestation efforts and conservation projects. Anticipating increased donor participation, improved user experiences, and greater environmental impact, our project endeavors to make a meaningful difference in preserving our planet for future generations. Through collaborative efforts and ongoing maintenance, we are committed to ensuring the sustainability and success of our software, driving positive change and empowering individuals to join us in creating a greener, healthier world.