Report of Internship at Sansrujan Information Technology

An Internship Report for
CSA-652 - Industry Internship
Credits: 16

Submitted in partial fulfilment of MCA Degree
for Semester IV.

By

AASTHA AMAR SANGLE
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PRN : 201910126

Under the Mentorship of
MR. SHOUNAK DESHPANDE

The Discipline of Computer Science and Technology,
Goa Business School,
Goa University.

Goa University

Date: June 2024

Examined by: Seal of the School

DECLARATION BY STUDENT

I hereby declare that the data presented in this Internship report entitled, "**Report of Internship at Sansrujan Information Technology**" is based on the results of investigations carried out by me at the Sansrujan, under the mentorship of Mr. Shounak Deshpande and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will not be responsible for the correctness of observations / experimental or other findings given the internship report/work. I hereby authorise the University authorities to upload this dissertation on the dissertation repository or anywhere else as the UGC regulations demand and make it available to any one as needed.

Signature and Name of Student
Aastha Amar Sangle
Seat no: 2240

Date:
Place: Goa University

COMPLETION CERTIFICATE

This is to certify that the Internship report "**Report of Internship at Sansrujan Information Technology**" is a bonafide work carried out by Ms.Aastha Amar Sangle under my mentorship in partial fulfilment of the requirements for the award of the degree of Master of Computer Application in the Discipline of Computer Science and Technology at the Goa Business School, Goa University.

Signature and Name of Mentor

Date:

Signature of Dean of School/HoD

School/Department Stamp

Date:

Place: Goa University

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OFFER LETTER

SANSRUJAN
UDYAM-GA-02-0002739

To,
Aastha Sangle,
Goa Business School
Goa University
Goa.

Date: 15-Jan-2024

Offer of Internship

Dear Aastha, I hope this letter finds you well.
We take pleasure in inviting you to join the Sansrujan Information Technology as a intern at Hs. No 311/11(new) 677(old) Devlay Khandola Marcela Goa on following conditions:

1. **Designation & Location**
   Software developer at our office address mentioned above.
2. **Date of joining**:
   You are expected to join the office not later then 15th January 2024.
3. **Stipend**
   We do not have a policy to pay a stipend to intern as of now.
4. **Period**
   Your internship will be of six months starting from 15 Jan 2024 to 15 June 2024
5. **Leaves**
   You are allowed to take 10 leaves in the given period which includes personal & sick leaves. Any leave required for the work at the education institution Eg. Viva, internship presentation may not be counted in the leaves. However, you are required to inform and take permission before taking a leave.
6. **Work Time & Ethics**
   - You will be governed by the timings and the hours of work applicable to the company wherein you are posted and you may be called upon work as required. Current work timings are 10:00 am to 06:00 PM from Monday to Friday.
   - If any time during your internship you are found guilty of misconduct or any willful breach or continuous negligence of terms of this appointment letter or rules or misconduct of duties and ethics then you will given notice and may end up in termination of your internship with this company.

We once again welcome you at Sansrujan Information Technology and look forward for your contribution in growing business and your industrial skills.

I have read and understood the offer letter and happy to join and be a part of the Sansrujan Information Technology .

Best wishes,

Sign of intern: _____

Date: 15TH January 2024

Place: Marcela, Goa.

SANSRUJAN INFORMATION TECHNOLOGY
PROPRIETOR

Shounak S Deshpande
Founder
Sansrujan Information Technology

INTERNSHIP CERTIFICATE

SANSRUJAN

TO WHOMSOVER IT MAY CONCERN

This is to certify that Ms. Aastha A. Sangle, student of Masters of Computer Applications (MCA) of Goa University, Goa is currently undergoing her final semester – Industry Internship (Semester IV) at our company, Sansrujan Information Technology from 15th January till 15th June 2024.

During her tenure she has met the expectations of her team lead and found to be regular and sincere.

This certificate has been issued on her request to be submitted with the Internship report at Goa University.

Yours Sincerely,

SANSRUJAN INFORMATION TECHNOLOGY

(Mr. Shounak Deshpande)

Founder PROPRIETOR

SANSRUJAN INFORMATION TECHNOLOGY

Registered Office:

Hs no. 677 Devlay, Khandola, Marcel – Goa

https://sansrujan.in/

ACKNOWLEDGEMENT

First and foremost, I am sincerely grateful to **Sansrujan Information Technology** for providing me with the opportunity to undertake this valuable internship. I extend my deepest gratitude to **Mr. Shounak Deshpande** for his exceptional leadership and unwavering support throughout the duration of my internship. Working under his mentorship has been an immensely enriching experience, offering me not only practical skills but also profound professional insights. His dedication to fostering a collaborative and innovative environment has greatly contributed to my professional growth, shaping my understanding of the industry and helping me gain confidence.

I would also like to acknowledge the support and collaboration of my peers at Sansrujan Information Technology, whose teamwork and cooperation made this internship both productive and enjoyable.

I am also profoundly thankful to Goa Business School, Goa University, for granting me the opportunity to gain practical industry experience.

Special thanks are due to **Mrs. Jyoti Pawar** (Dean), **Mr. Ramrao Wagh** (Program Director, MCA), **Mr. Hanumant Redkar** (Assistant Professor, MCA), and the entire MCA faculty for their continuous support and encouragement.

I would also like to express my heartfelt appreciation to my internship guide from the university, **Mr. Ramdas Karmali** (Professor, MCA), for his invaluable guidance and support throughout this journey.

Additionally, I am deeply grateful to my parents and friends for their constant encouragement and understanding. Their unwavering support has been a pillar of strength throughout my academic and professional journey.

Thank you all for your support and encouragement.

EXECUTIVE SUMMARY

Starting on 15th January 2024, I began my internship at Sansrujan Information Technology, diving into web and mobile application development with a focus on PHP Laravel and React Native. The company's innovative approach and dedication to high-quality software provided an excellent learning environment for my professional growth.

Organization Overview:

Sansrujan Information Technology, located in Marcela, Goa, is a dynamic and innovative company specializing in cutting-edge software solutions. Under the leadership of Mr. Shounak S. Deshpande, the company is committed to fostering technological advancements and delivering high-quality software products. The company's collaborative and forward-thinking environment provided an ideal setting for professional growth and skill development.

Tasks Handled:

Throughout the internship, I worked on both backend and frontend development. I handled tasks ranging from database integration and form handling to UI/UX design. My responsibilities included learning and implementing various technologies and frameworks such as GitHub/Gitbash, AJAX requests, jQuery, Laravel, Firebase authentication, and React Native. Initially, I started with PHP to understand how PHP applications work. My tasks included enhancing existing features, adding new features for a better user experience, improving security, and making UI enhancements updating CSS, and integrating interactive components with JavaScript and jQuery. Then, I moved on to the PHP framework Laravel, where I developed modules, worked on features like data displays, optimized database queries, and UI enhancements, such as ensuring responsive design. Later, I shifted to android development with React Native, where I built features focusing on user authentication, creating various UI pages, and real-time data fetching with Firebase and Axios. Additionally, I integrated Firebase and PHP MySQL for comprehensive backend support. Worked closely with team members, participated in code reviews, and contributed to project planning.

Learning Outcomes:

Throughout my internship, I had the opportunity to work on various projects, each presenting its own set of challenges and learning opportunities. From website development to software testing and web hosting, I gained hands-on experience in different aspects of IT operations, sharpening my skills and broadening my understanding of the industry. I became proficient in various programming languages and technologies, notably Laravel and React Native, alongside skills in AJAX, Axios, CSS, and JavaScript. I also learned to use tools like FileZilla for web hosting and Postman for API testing. My problem-solving skills were sharpened through hands-on experience with debugging techniques like console-log statements and got familier with real-time communication using web sockets. The knowledge sharing sessions that were conducted every Friday turned out to be very informative as each of my team members prepared and presented resulting in learning new industry practices. The collaborative environment at Sansrujan improved my teamwork and communication skills, as I worked closely with colleagues to meet project goals. This exposure to real-world projects and industry standards has significantly prepared me for a future career in technology.

Challenges Faced:

A significant challenge was debugging complex code and troubleshooting software issues, which demanded meticulous attention to detail and persistence. Initially, understanding the Laravel MVC framework was also challenging. Handling Git commits and merge conflicts was another difficulty. With multiple developers working on the same project, merging code changes often led to conflicts. Resolving these required careful merging, good version control practices, and effective communication with team members.

In conclusion, my internship journey at Sansrujan Information Technology has been an invaluable experience, providing me with a robust foundation in web and mobile application development. Hands-on experience strengthened my problem-solving skills and equipped me with the resilience needed for real-world projects. I’m thankful for the supportive environment at Sansrujan, which nurtured my personal and professional growth. As I move forward in my career, I’m confident that the skills gained here will pave the way for success in the ever-evolving field of technology.

CHAPTER 1 : COMPANY OVERVIEW

Name of the Company: Sansrujan Information Technology

Address: Marcel, Goa

Phone Number: +91 8262948825

Email: contact@sansrujan.in

Website: https://sansrujan.in/

1.1 Birds-eye-view

Introduction: Sansrujan Information Technology was founded in 2019 by Shounak Deshpande. The company focuses on making technology accessible to everyone. Located in Marcel, Goa, Sansrujan Information Technology serves clients worldwide, turning innovative ideas into excellent digital solutions.

Mission and Vision: Sansrujan Information Technology aims to turn "Imagination Into Reality" by offering a variety of services and solutions tailored to meet the unique needs of its clients. The company is committed to delivering high-quality, innovative technology solutions and has become a trusted partner for businesses in various industries.

1.2 Products/Services

Sansrujan Information Technology offers a comprehensive range of services, including;

- **Android Mobile App Development:** Creating user-friendly mobile applications for Android devices.
- **Web Application Development:** Building dynamic web applications that improve user engagement and business efficiency.
- **Website Building:** Designing and developing attractive and functional websites.
- **Graphic and Product Design:** Creating stunning graphics and innovative product designs.

- **UI/UX Design:** Ensuring seamless and engaging user interactions through user experience and interface design.
- **IT Support and Consultancy:** Offering expert IT support and consultancy services to enhance business operations.
- **Marketing Products and Services:** Developing effective marketing strategies to promote products and services.
- **Building Brands on LinkedIn:** Increasing brand presence and visibility on LinkedIn through targeted strategies.

1.3 Sections within the Organization

Team and Expertise: The team at Sansrujan Information Technology is made up of professionals who excel in their fields. Their expertise includes mobile app development, website creation, graphic design, and IT consultancy, ensuring every project is handled with precision and creativity.

Notable Achievements:

- **Client Success:** The company has worked with over 50 clients from various sectors, including retailers and multinational corporations. They have successfully completed projects such as inventory management systems, e-commerce platforms, logistics systems, portfolio websites, and content management systems (CMS).
- **Industry Recognition:** Founder Shounak Deshpande was appointed as a visiting faculty for the year 2023-24, highlighting his significant contributions to technology and education.

Under Shounak Deshpande's leadership, Sansrujan Information Technology has quickly grown to become a leader in innovative technology solutions. By turning imaginative ideas into reality, the company continues to make advanced technology accessible and beneficial to businesses and individuals worldwide.

Contact Information: For more information about Sansrujan Information Technology and its services, visit the company website at https://sansrujan.in/.

CHAPTER 2 : TASKS HANDLED

2.1. PROJECT : YUVA JAGRUTI

My responsibilities:

2.1.1. Add security and Update registration functionality.

- Implement PHP input validation and sanitation using filter_var() and htmlspecialchars() functions to prevent SQL injection and XSS attacks.
- Update registration functionality to securely handle new events and their information.
- Implement AJAX for form submission to enhance user experience and minimize page reloads.
- Add form validation checks for email matching, empty fields, and valid phone numbers to ensure data integrity.
- Validate contest selections and registration attempts on the server side to prevent duplicate entries.

Tools and technologies used:

- PHP for server-side scripting and backend development.
- MySQL for database management.
- AJAX (Asynchronous JavaScript and XML) for seamless form submission.
- HTML/CSS/JavaScript for rendering and client-side operations.
- XAMPP for local development environment.
- VS Code for code editing.

2.2. PROJECT : DIWA GOA

My responsibilities:

2.2.1. Database creation

- Create essential tables and implement a script to establish a secure connection to the diwa-goa database.

2.2.2. Contact form submission handling

- Develop "Send Message" button to capture user input and submit it to the server.
- Add validation checks and set up AJAX requests to handle form submissions asynchronously and minimize page reloads

2.2.3. User Messaging Restrictions

- Write a condition to restrict users to send 3 messages within 60 minutes and restricting further attempts for 24 hours.
- Update the database table to show a single record per user only incrementing the number of attempts.

2.2.4. Email notifications

- Implement a function to send confirmation emails to both client and admin.

2.2.5. View/Edit Banner and Gallery operations

- Implement image upload, delete, and display functionalities for both banners and gallery, including slideshow functionality with auto-reload after uploading banners/images.

Tools and technologies used:

- PHP for server-side scripting and backend development.
- MySQL for database management.
- AJAX (Asynchronous JavaScript and XML) for seamless form submission.
- SMTP Server for sending emails.
- HTML/CSS/JavaScript for rendering and client-side operations.
- XAMPP for local development environment and VS Code for code editing.

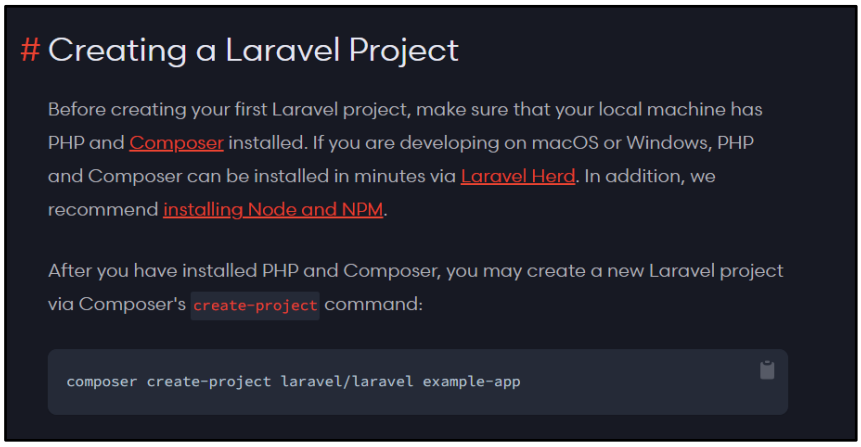
2.3. PROJECT : EVENTIFY WEB APPLICATION

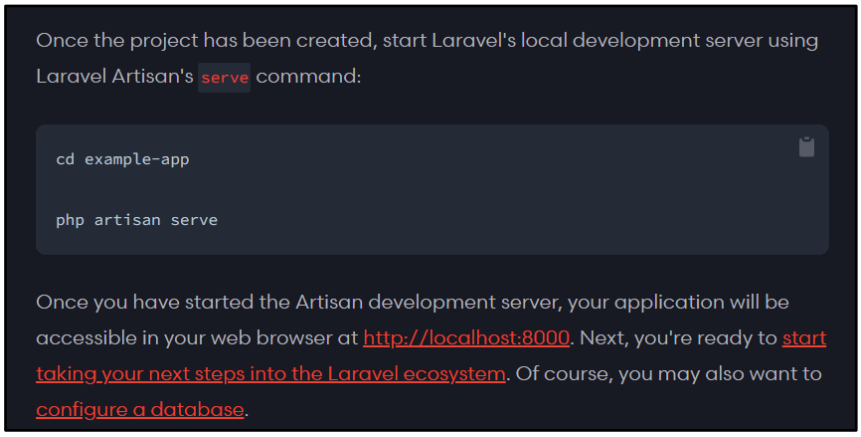
This website is designed for colleges and businesses to manage and coordinate various events. It aims to streamline the organization process and maintain records of contributions, transactions, and attendance of students, faculty, staff, and business participants. The platform likely offers tools for event planning, tracking participation, and documenting individual efforts to facilitate efficient event management for educational institutions and corporate settings.

My responsibilities:

2.3.1. Project Setup and configuration

- Download Laravel framework via composer.
- Create new project in Laravel, setup database and discussed schema.

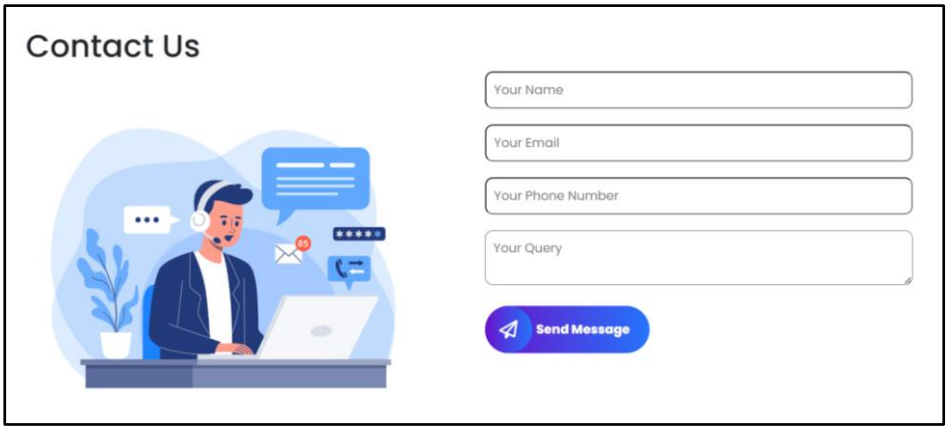




2.3.2. Front-end Development

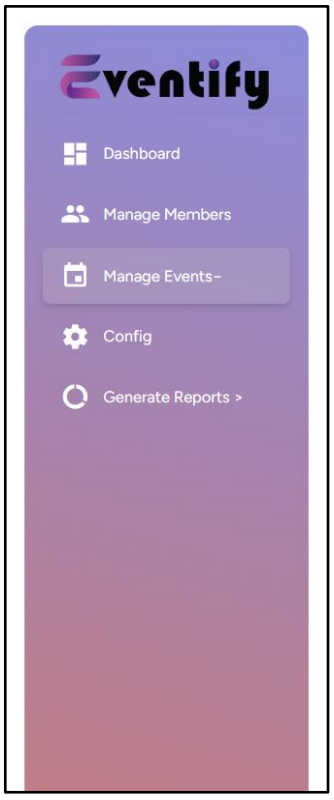
a. "Contact Us" form

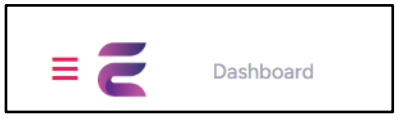
- Add validation checks.
- Set up AJAX request to handle form submissions asynchronously and minimize page reloads.



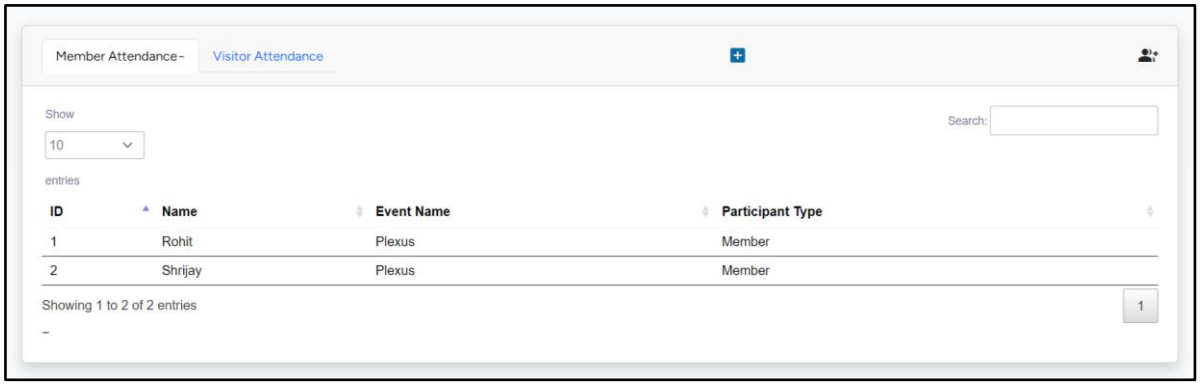
b. Vendor Sidebar

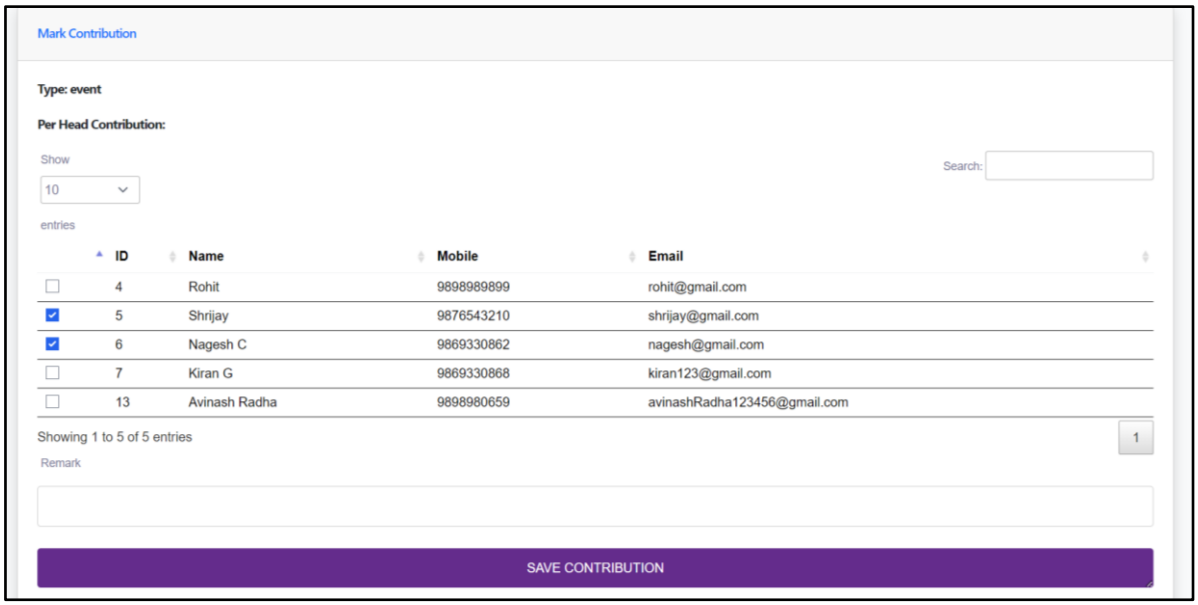
- Make the sidebar responsive to adjust according to the screen size, ensuring optimal display on various devices.
- Add hamburger menu for easier navigation on smaller screens.



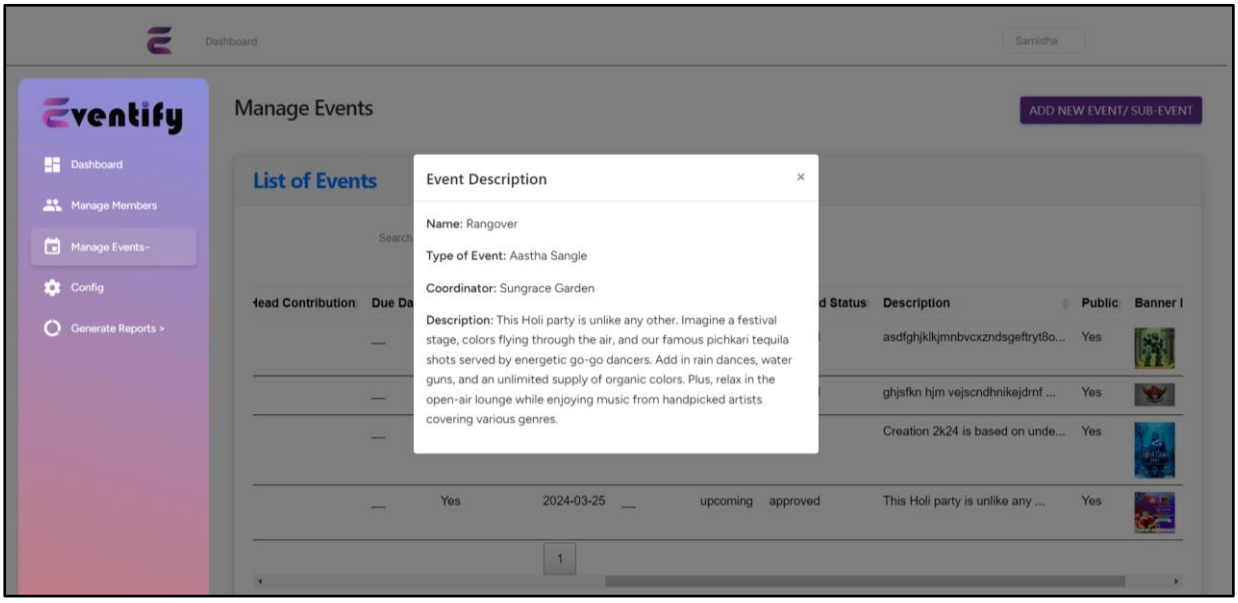


c. Design views for fetching and displaying data from the database using SQL functions.



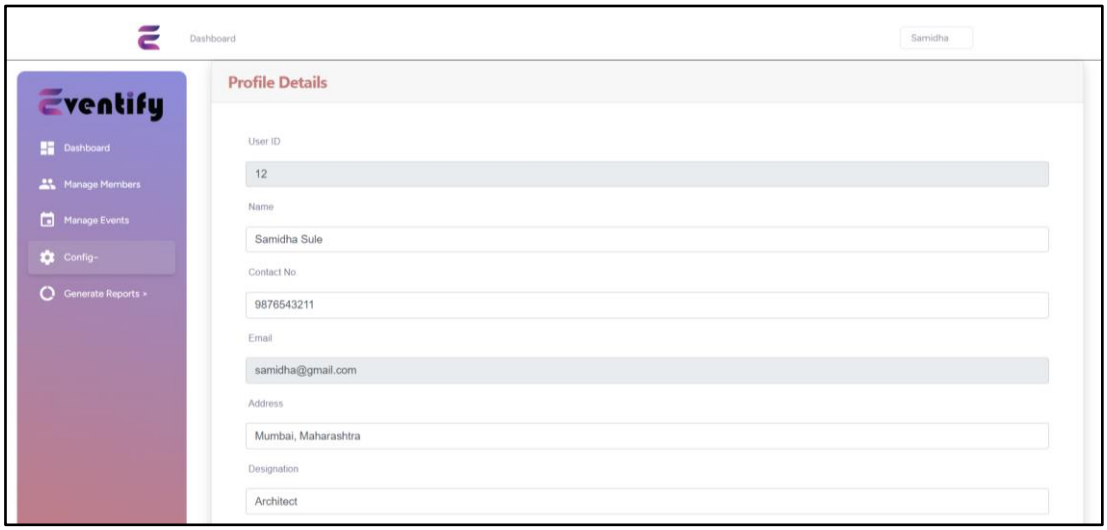


d. Add modal views.



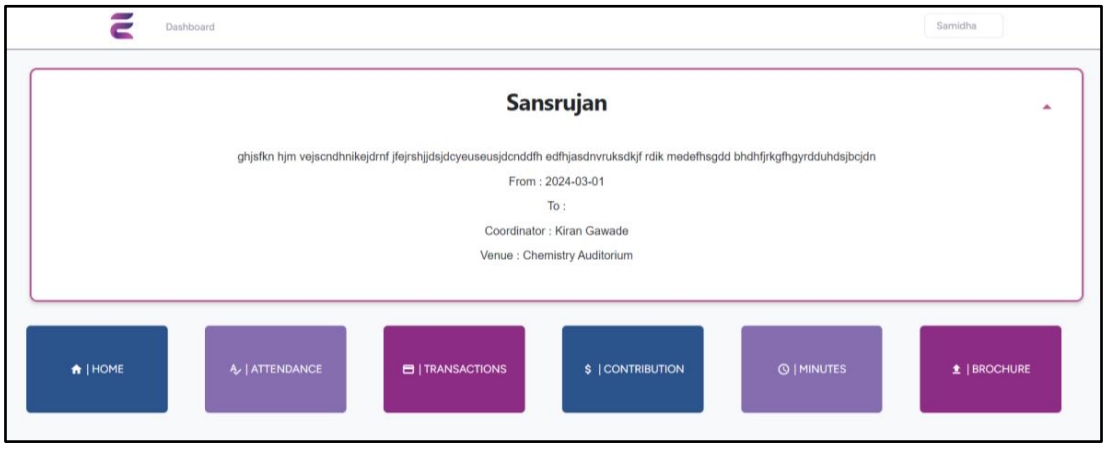
e. Create “Config” module.

- Fetch and display the logged in user details.
- Allow updating the user details.



f. Event Dashboard

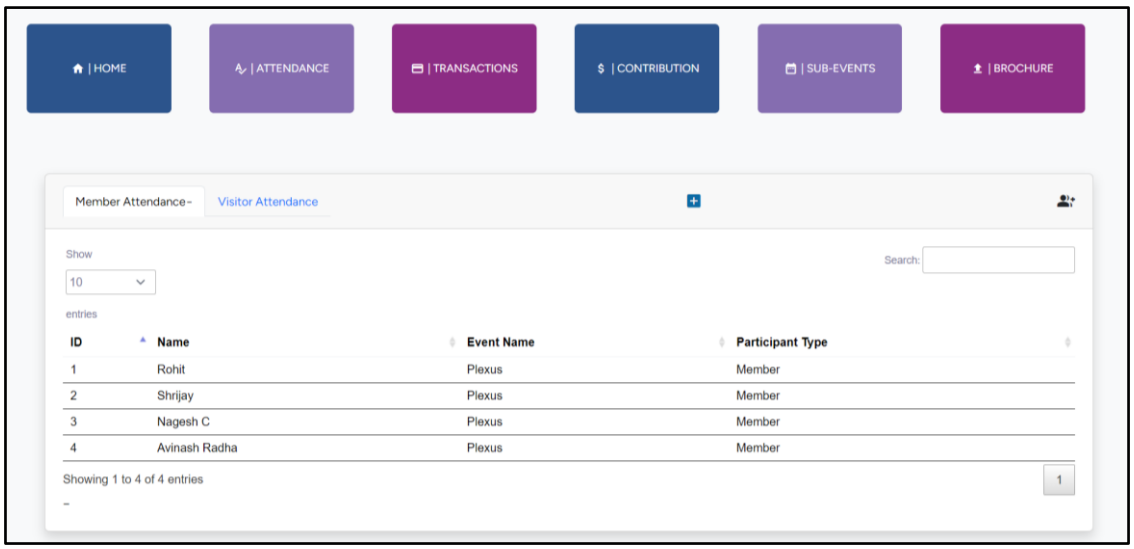
- Create a dashboard for displaying event details.

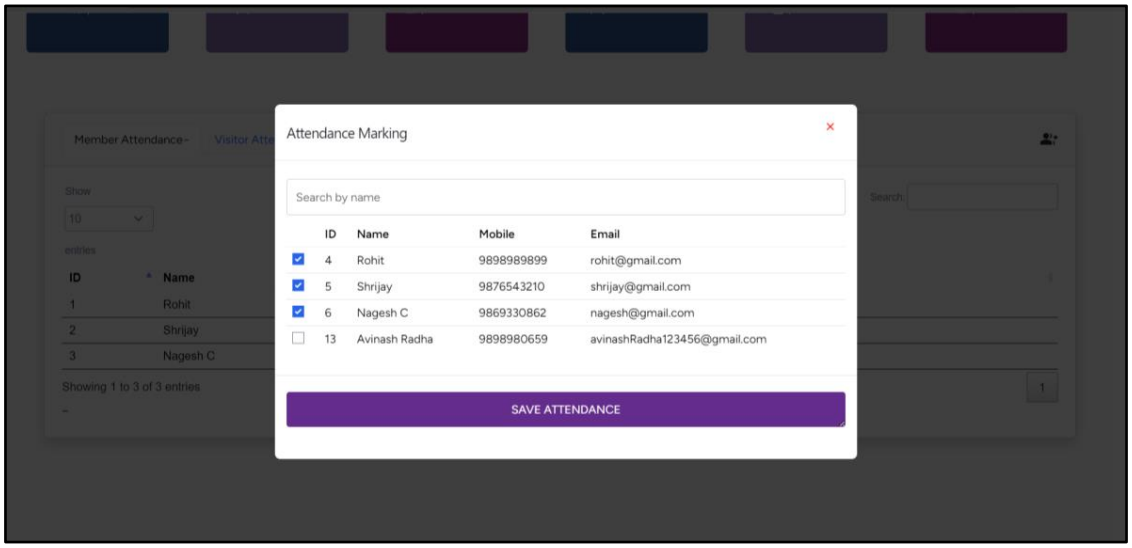


2.3.3. Functionality Development

a. Attendance Module

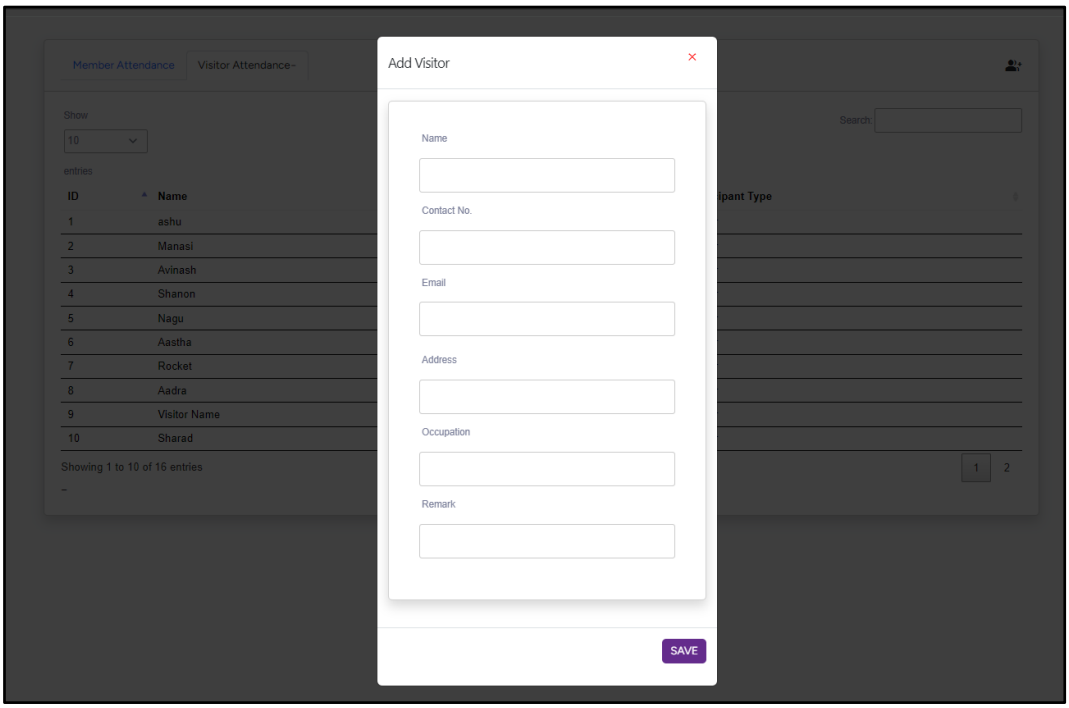
- Develop functionality to view the list of approved members in a modal view.
- Implement checkbox functionality to mark attendance for approved members.
- Utilize array format in the database to store member IDs for attendance, avoiding redundant entries.
- Implement the logic to check if the event ID exists in the database; if it does, it adds new attendance for the member in the existing array, otherwise creates a new entry.
- Ensure that checkboxes remain checked after saving, facilitating easier tracking of attendance status.
- Integrate DataTables to enhance the display and management of attendance data.

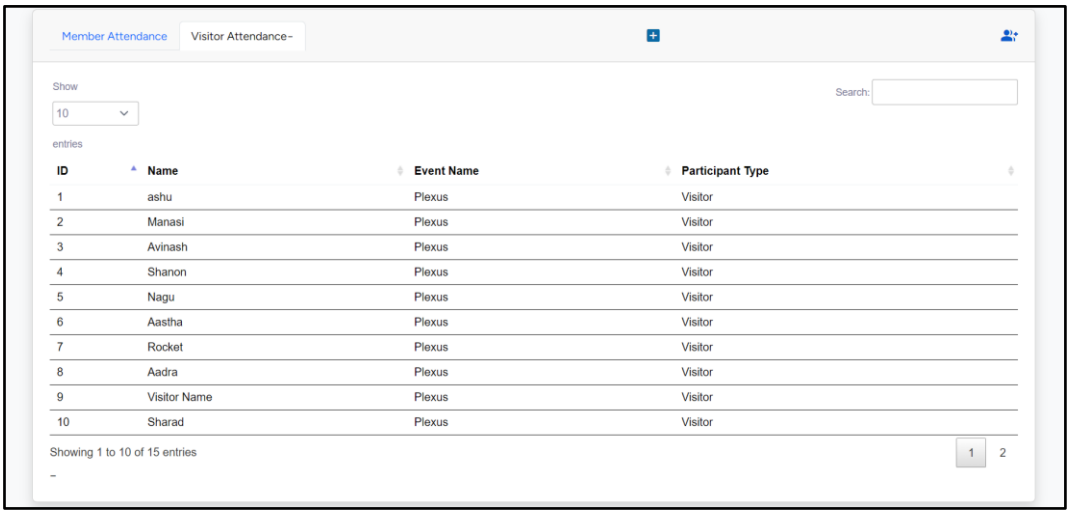




b. Visitor Module

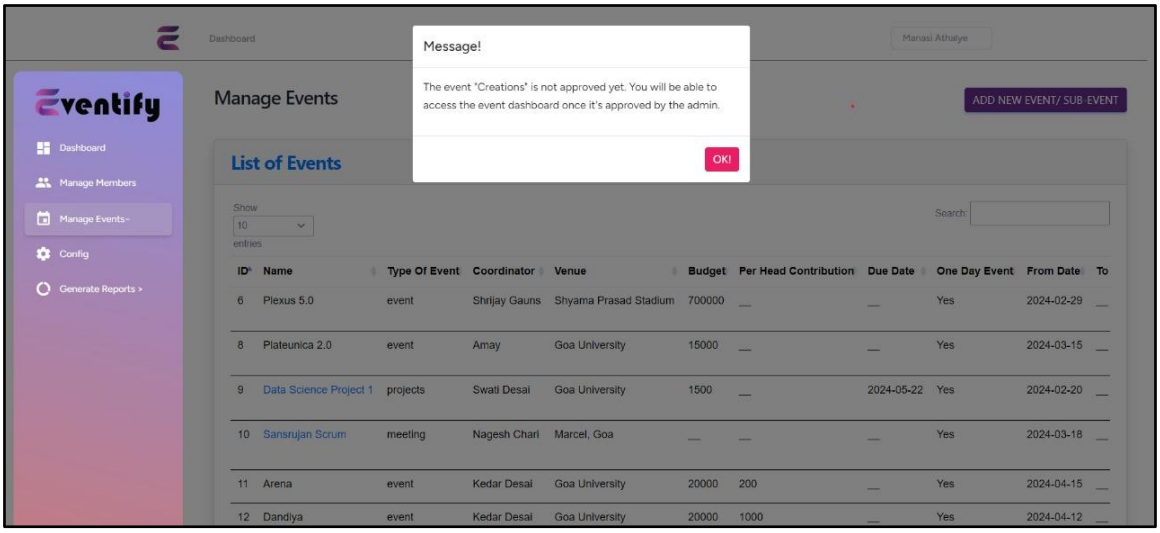
- Create a form to add visitor in a modal view.
- Implement functionality to save visitor details upon clicking the save button.
- Enabled viewing of visitors in a visitor list view after adding them through the form.
- Integrate DataTables to enhance the display and management of attendance data.





c. Non-activated Events should not be processed

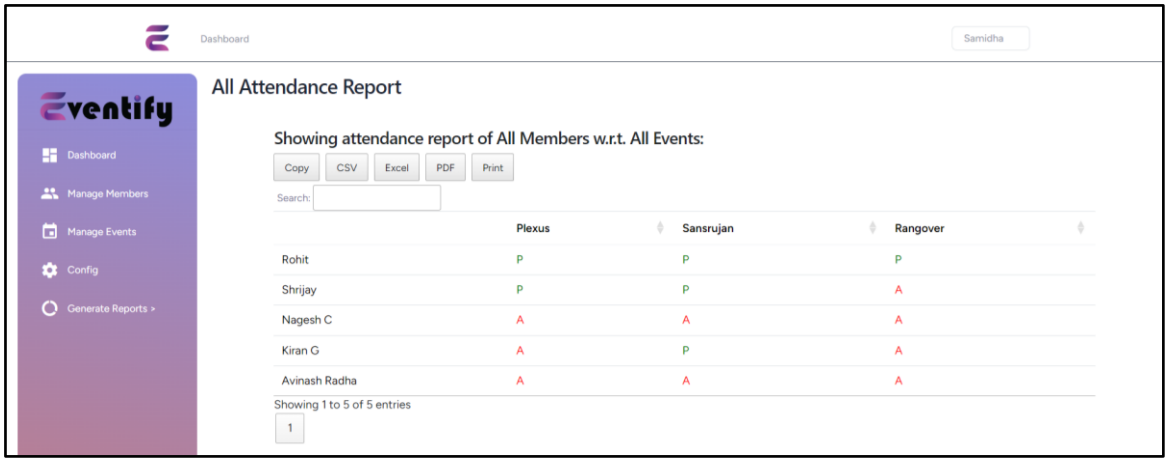
- Restrict user to redirect from URL if the event is unapproved.
- Message for unapproved events.
- Add link to redirect to event dashboard once event is approved.



d. Reports

The reports display the overall information specific to member and events. You can view the report to check the number of members, their participation in each events, overall attendance, transactions and contribution for all events and so on.

- Show attendance of all members event-wise.
- Show transaction report for all the events and members.
- Show event-wise contribution report.



2.3.4. Knowledge Sharing and Integration

a. Testing using Cypress

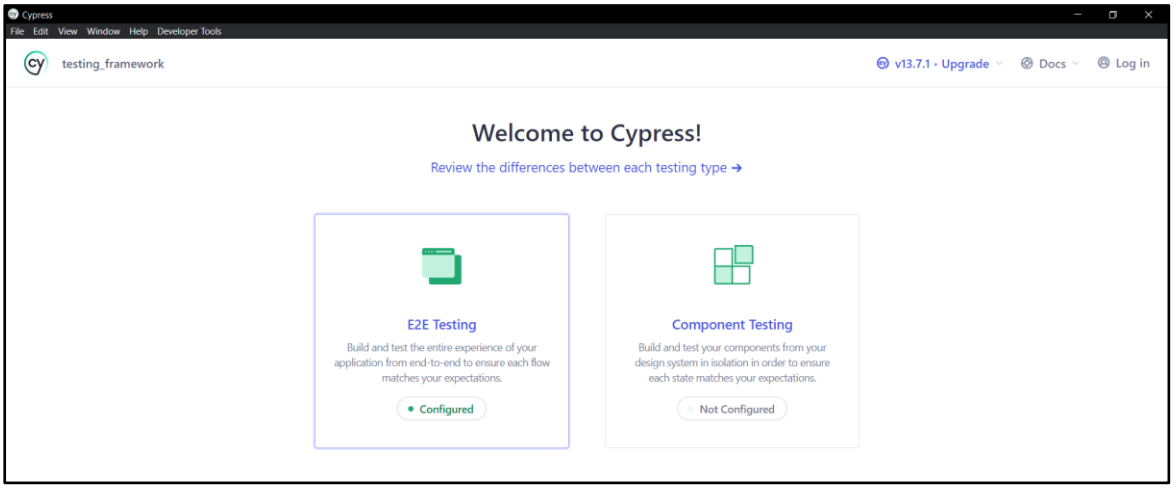
Cypress is a powerful end-to-end testing framework designed for modern web applications. It enables developers to write and run tests that simulate user interactions, ensuring that all components of a web application work as expected.

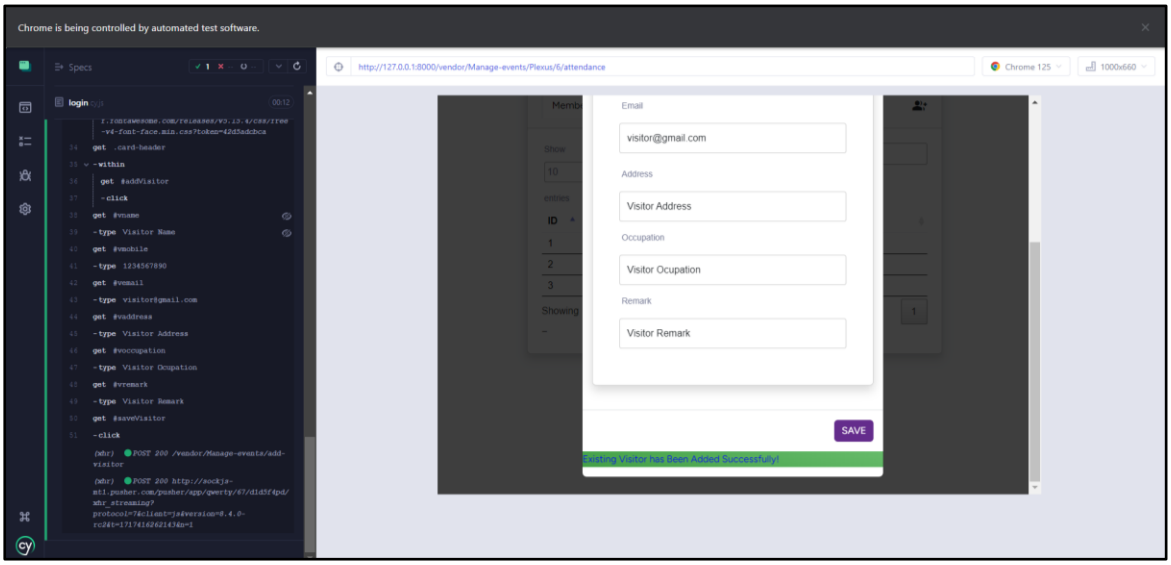
Real-time Reloads: Cypress automatically reloads the tests when changes are made, providing instant feedback.

Automatic Waiting: Cypress waits for commands and assertions before moving on, eliminating the need for manual waits.

Debugging: Detailed error messages and stack traces make it easy to debug issues.

- Conduct end-to-end (E2E) testing, specifically smoke testing, for the visitor module.
- Ensure the visitor module's functionality works correctly by simulating real user interactions and validating the expected outcomes.





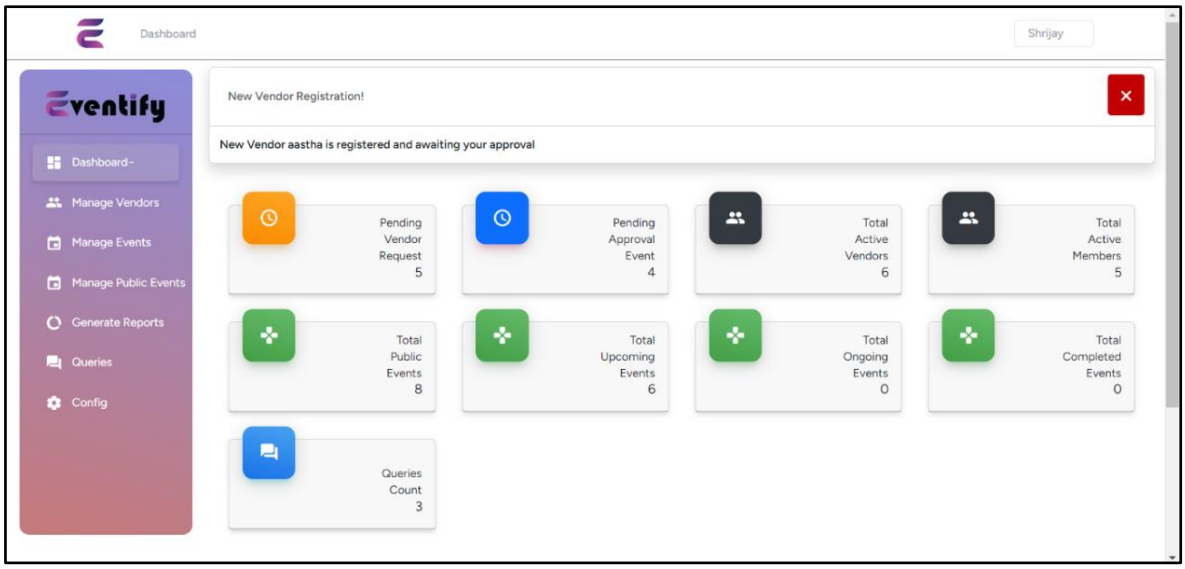
b. Web Sockets Implementation

Web Sockets provide a communication protocol that enables real-time interaction between the client and server. In our project, we implemented Web Sockets to enhance user experience by enabling real-time toast messages and automatic page reloads for displaying updates.

Benefits:

- **Real-Time Communication:** Allows instant updates and notifications to be pushed to the client without requiring the client to constantly poll the server.
- **Enhanced User Experience:** Real-time toast messages notify users of important events or updates immediately.
- **Automatic Page Reloads:** Ensures that users see the most current information without needing to manually refresh the page.

- By using Web Sockets, we were able to create a more dynamic and responsive application, improving both the functionality and the user experience.

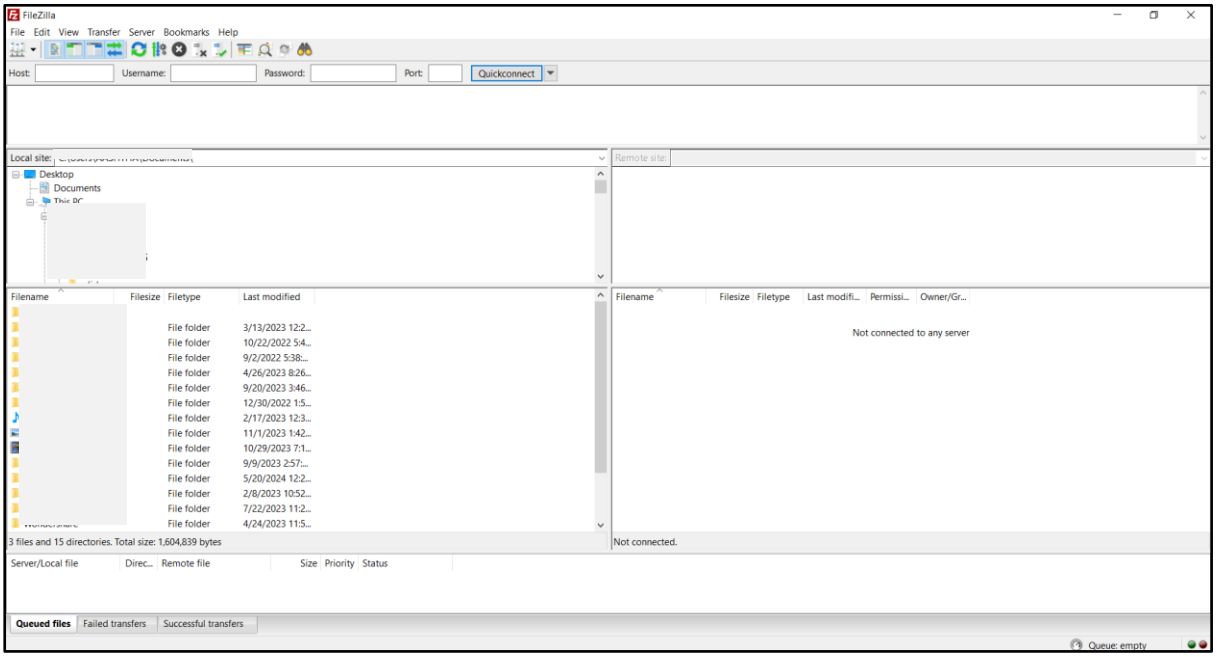


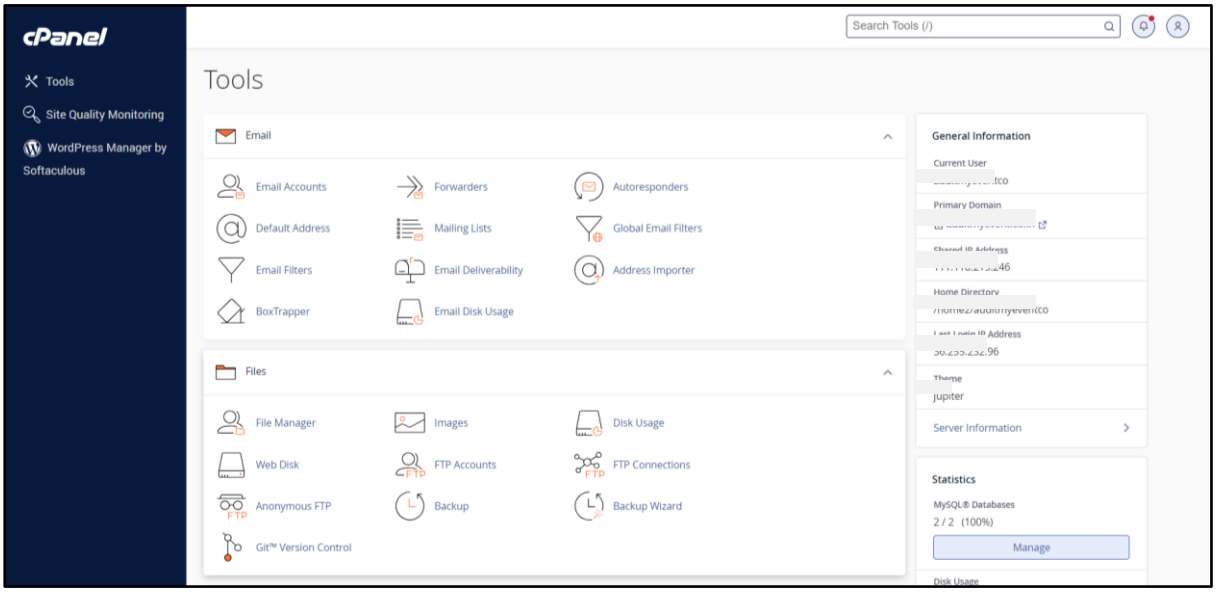
c. Hosting and Deployment using FileZilla and cPanel

FileZilla: It is an FTP (File Transfer Protocol) client that allows you to transfer files between your local machine and a remote server.

cPanel: It is a web hosting control panel that provides a graphical interface and automation tools designed to simplify the process of hosting a website.

- Use FileZilla to upload the initial set of website files from a local development environment to the web server.
- Use cPanel to configure domains, set up databases, and manage other hosting settings.





Tools and technologies used:

- Laravel Framework for server-side scripting and backend development.
- MySQL for database management.
- AJAX (Asynchronous JavaScript and XML) for seamless form submission.
- HTML/CSS/JavaScript for rendering and client-side operations.
- XAMPP for local development environment
- VS Code for code editing.
- Cypress for end-to-end testing and automation.
- npm (Node Package Manager) for managing project dependencies and packages.
- **FileZilla**: FTP client for transferring files between local and remote servers.
- **cPanel**: Web hosting control panel for managing hosting accounts.

2.3.5. Laravel Security Practices Implemented in the Project

a. Disabling Debug Messages in Production

When deploying an application to production, it's crucial to disable debug messages and enable production settings to ensure security, performance, and a smooth user experience. This is typically done by setting environment variables.

Example:

```
APP_ENV=production
APP_DEBUG=false
```

Benefits:

- **Security:** Protects against exposing sensitive information.
- **Performance:** Reduces resource consumption by disabling debug features.
- **User Experience:** Shows user-friendly error pages instead of raw error details.

b. Protecting Forms from Cross-Site Request Forgery (CSRF)

To protect our forms from CSRF attacks, we used the @csrf Blade directive in our Laravel application. This directive adds a CSRF token to our forms, which Laravel validates with each request to ensure it originated from our application.

Example:

```
<form method="POST" action="{{ route('register') }}">
    @csrf
    <p>
        <label for="name">First Name</label>
        <input type="text" id="name" name="name" value="{{ old('name') }}" required />
    </p>
    <!-- Add other form fields here -->
</form>
```

Benefits:

- **Security:** Prevents attackers from making unauthorized requests on behalf of authenticated users.
- **Ease of Use:** Laravel automatically validates the CSRF token on form submissions.

- **@csrf:** This Blade directive inserted a hidden CSRF token field into our form. Laravel used this token to verify that the request came from our application and not from a malicious third party.

c. Validating User Input

Validation in Laravel is crucial to ensure the application's security and integrity. By validating user input, we sanitize the data users send, which is essential since user input should never be trusted.

Example:

```php
use Illuminate\Http\Request;

public function store(Request $request)
{
    $validated = $request->validate([
        'user_id' => 'required|exists:users,id',
        'title' => 'required|string|min:3|max:255',
        'content' => 'required|string|min:3',
        'published' => 'sometimes|boolean'
    ]);

    if ($request->fails()) {
        return redirect()->back()->withErrors($request->errors());
    }
}
```

Benefits:

- **Security:** Prevents malicious data from entering the system by validating inputs against specific rules.
- **Data Integrity:** Ensures that the data stored in the database meets the required criteria, reducing the risk of errors and inconsistencies.

- By using Laravel's built-in validation rules, we efficiently and effectively validated user input, enhancing the overall security and reliability of our application.

d. Handling Uploaded Files

Files uploaded by users must never be trusted. Here are a few recommendations we followed to ensure secure handling of file uploads in our Laravel application.

Example:

```php
use Illuminate\Http\Request;

public function uploadFile(Request $request)
{
    $validated = $request->validate([
        'file' => 'required|mimes:gif,jpeg,png,webp',
    ]);

    // Handle the file upload
    if ($request->file('file')->isValid()) {
        $request->file('file')->store('uploads');
    }
}
```

Benefits:

- **Security:** Checks the MIME type to prevent users from uploading potentially harmful files.
- **Data Integrity:** Ensures that only files of the specified types are accepted, maintaining consistency and preventing errors in file handling.

- By implementing these practices, we enhanced the security, integrity, and reliability of our Laravel application, providing a robust and secure environment for our users.

2.4. PROJECT : EVENTIFY ANDROID APPLICATION

My responsibilities:

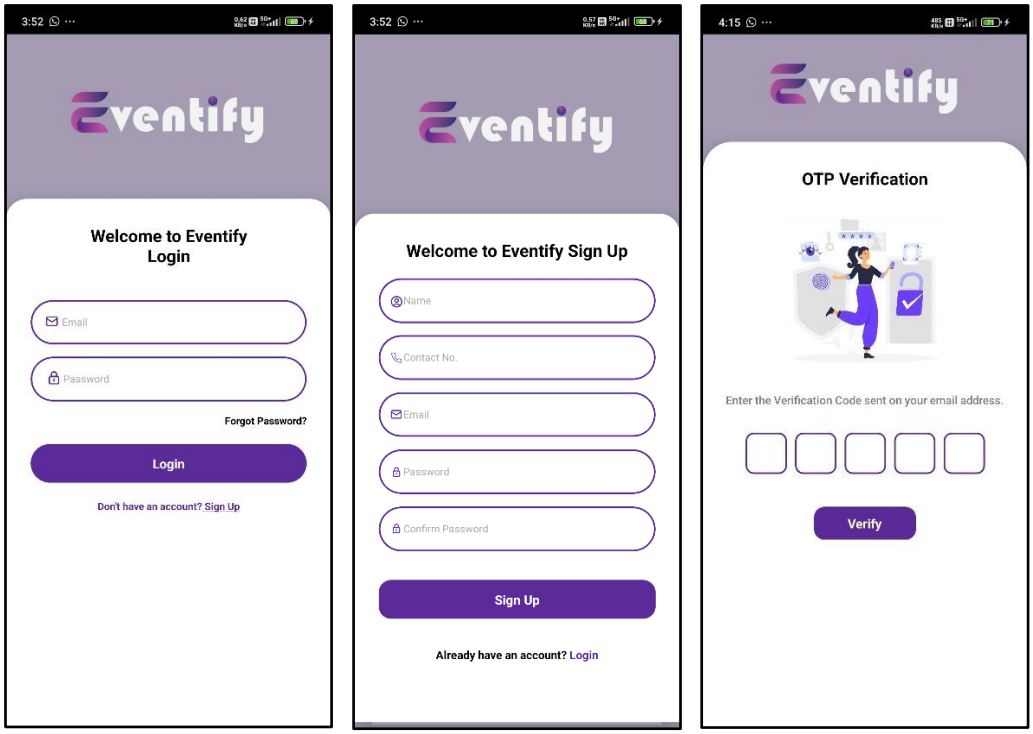
2.4.1. Project Setup and framework

- Download and install Node.js.
- Use npm to install React Native CLI.
- Initialize a new React Native project.
- Download and install Android Studio.
- Install necessary Android SDKs and set up an Android Virtual Device (AVD) for testing.
- Open VS Code and install necessary libraries to start the project.

2.4.2. UI/UX Design

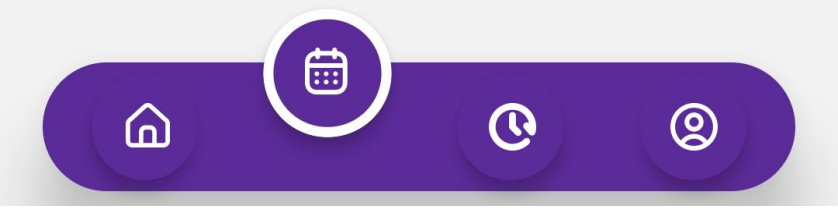
a. Design responsive UIs for Login , Registration and OTP Verification.

- The useState hook is used to keep track of different values like email, password, name, contact, errors, and OTP.
- The useNavigation hook and the navigation prop help move between different screens.
- AsyncStorage stores the user's email and ID locally to remember the login session.
- axios is used to send data to the server, such as saving user info during registration.
- To add responsiveness, Dimensions is used to get the screen width and height to adjust the layout, making the app look good on different screen sizes.
- **OTP Functionality:**
  - Five input boxes for OTP digits.
  - useRef is used to focus the next input box automatically when a digit is entered.
  - The OTP digits are stored in an array and updated as the user types.



b. Design custom bottom tab navigation bar.

- Icons are animated when switching between tabs, moving slightly upwards and increasing in size to provide visual feedback.
- Each tab button is associated with a screen and triggers navigation to that screen when pressed.
- The tab bar adjusts to the screen width and is positioned at the bottom of the screen.
- The component is easily configurable and can be integrated into different parts of your app with minimal effort.



2.4.3. Functionality Development

a. Member details

- Use Axios to send member details via a POST request to the server.
- Save the member details in the MySQL database in the member table.
- After member registration, users register under a vendor using the vendor registration form.
- Fetch the member_id from the member table and the vendor_id and vendor_code from the vendor table.
- Concatenate the member_id, vendor_id, and vendor_code, and save these details in the vendor_member table.
- This functionality ensures efficient management of multiple vendors and events.
- It simplifies the retrieval of a list of all vendors under which a member has registered.

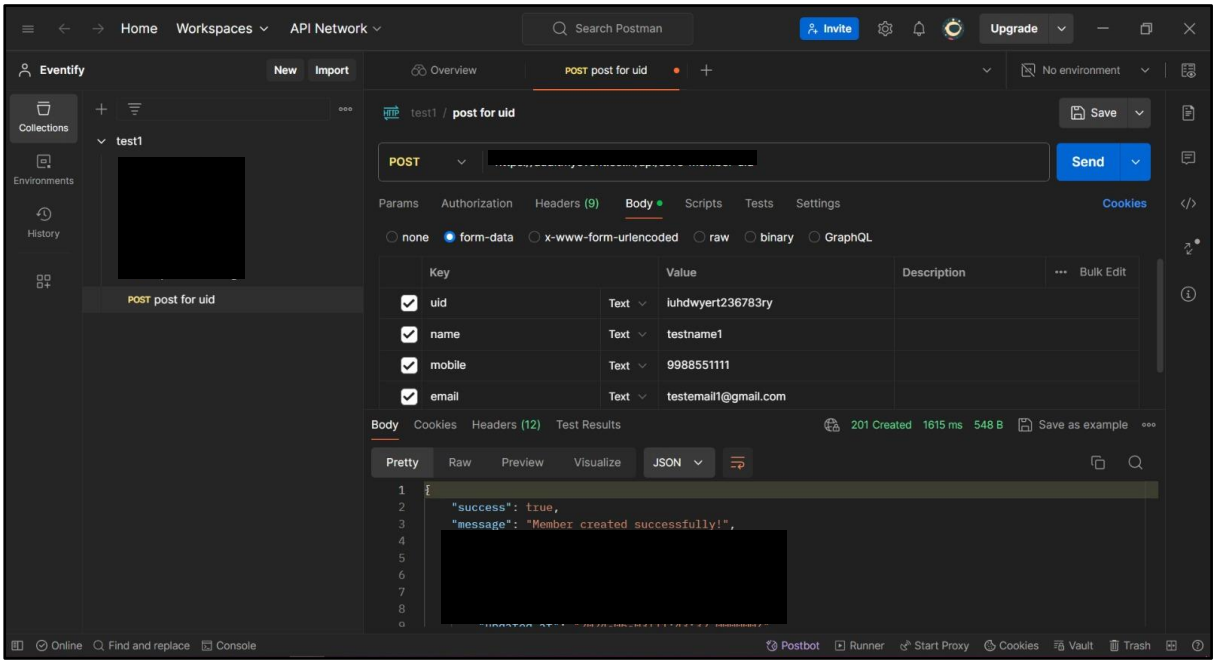
3.4.4. Knowledge Sharing and Integration

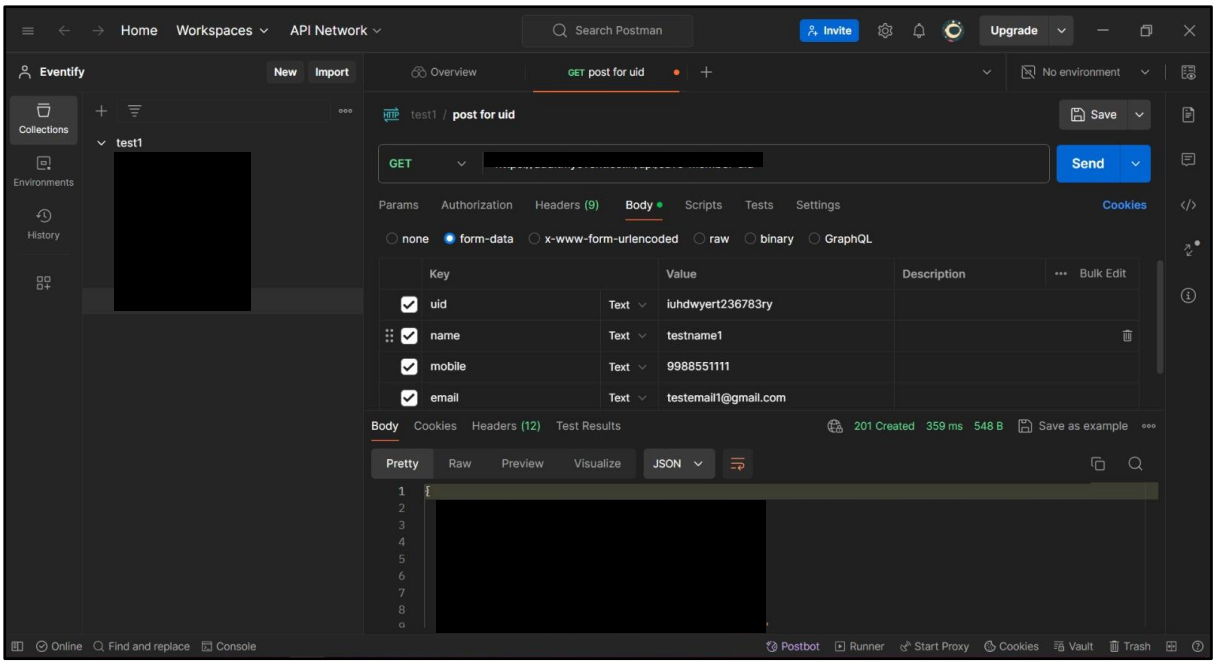
a. API Testing using Postman

Postman is a popular platform used by developers to build, test, and document APIs. It simplifies the process of working with APIs by providing a user-friendly interface for sending requests, inspecting responses, and automating tests.

- It allows users to create HTTP requests such as GET, POST, PUT, DELETE, etc.
- Users can view and analyze API responses, including headers, status codes, and response bodies.
- Postman collections allow users to organize and group API requests, making it easy to manage and share them.
- It also provides a testing framework that allows users to write and run automated tests for their APIs.

- Utilize Axios to handle HTTP requests and communicate with the APIs.
- Test API endpoints to retrieve vendor list and event list using GET request.
- Test API endpoints to POST data from firebase to MySQL database.




Home
Workspaces
API Network
Search Postman
Invite
Upgrade
Eventify
New
Import
Overview
GET post for uid
No environment
Collections
Environments
History
test1
test1 / post for uid
Save
GET
Send
Params
Authorization
Headers (9)
Body
Scripts
Tests
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
Key
Value
Description
Bulk Edit
uid
Text
iuhdwyert236783ry
name
Text
testname1
mobile
Text
9988551111
email
Text
testemail1@gmail.com
Body
Cookies
Headers (12)
Test Results
201 Created
359 ms
548 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash

CHAPTER 3 : LEARNINGS

Visual Studio Code: A free, open-source code editor by Microsoft that supports many programming languages and features like debugging, syntax highlighting, and Git integration through extensions.

Android Studio: The official integrated development environment (IDE) for Android app development, providing tools for code editing, debugging, testing, and a rich set of emulators for different Android devices.

GitHub: A web-based platform for version control and collaborative software development using Git. It provides a repository hosting service, enabling developers to manage their code, track changes, and collaborate with others through features like pull requests, issues, and project boards

HTML: The standard markup language for creating web pages, using elements and tags to define the structure and content, such as headings, paragraphs, links, and images.

CSS: A stylesheet language used for describing the presentation of a document written in HTML or XML, enabling the design and layout of web pages with properties like colors, fonts, and spacing.

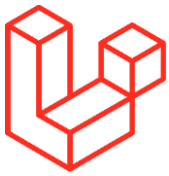
JavaScript: A high-level, dynamic programming language primarily used to create interactive effects within web browsers, powering web functionalities like form validation, animations, and event handling.

JQuery: A fast, small, and feature-rich JavaScript library that simplifies HTML document traversal and manipulation, event handling, and animation, providing an easy-to-use API compatible with multiple browsers.

XAMPP: A free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting of Apache HTTP Server, MySQL database, and interpreters for scripts written in PHP and Perl. It simplifies the setup of a local development environment.

phpMyAdmin: It provides a user-friendly web interface for managing MySQL databases, allowing for easy database administration tasks without needing SQL knowledge.

PHP: A server-side scripting language designed for web development but also used as a general-purpose programming language, embedded in HTML to create dynamic web page content and interact with databases.



Laravel: A PHP web application framework with an expressive, elegant syntax, providing a robust set of tools and resources for building modern web applications, including routing, authentication, and database management.

React Native: An open-source framework created by Facebook for bilding mobile applications using JavaScript and React. It allows developers to write native mobile apps for iOS and Android with a single codebase, sharing logic and components across platforms.

npm: The Node Package Manager, a package manager for JavaScript, included with Node.js. It allows developers to install, share, and manage dependencies and packages needed for JavaScript development, simplifying project setup and management.

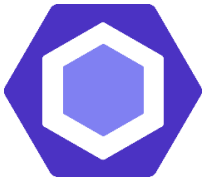
Node.js: An open-source, cross-platform JavaScript runtime environment that executes JavaScript code outside a web browser. It is used for building scalable network applications, offering event-driven, non-blocking I/O operations.

Microsoft Teams: A collaboration platform within Microsoft 365, providing workspace chat, video conferencing, file storage, and application integration, designed to facilitate teamwork and communication within organizations.

Firebase: A comprehensive platform developed by Google for creating mobile and web applications. It offers a suite of tools and services such as real-time databases, authentication, cloud storage, analytics, and hosting, enabling developers to build and scale apps quickly without managing the backend infrastructure.

3.1. Knowledge sharing session:

FileZilla: An open-source FTP client for file transfer between a local computer and a server on the Internet, supporting FTP, SFTP, and FTPS protocols with features like drag-and-drop, site manager, and file editing.



ESLint: ESLint is a powerful static code analysis tool primarily used with JavaScript (ECMAScript) codebases. It helps developers maintain code quality and enforce coding standards by identifying patterns and potential issues in the code.

Cypress: An end-to-end testing framework for web applications, designed to provide a fast, reliable, and easy-to-use tool for writing, running, and debugging tests, with features like automatic waiting and real-time reloads.

Postman: A collaborative API development tool that simplifies the process of developing, testing, and debugging RESTful APIs through an intuitive graphical interface, allowing users to make HTTP requests and view responses.

cPanel: It is a web-based control panel and makes it easy to manage server resources, set up domains, and handle website files and databases.

Redis: Redis is a fast, in-memory database used for caching, real-time data, and messaging. It speeds up data access and improves performance in applications.

Katalon: A versatile test automation tool that supports web, API, mobile, and desktop applications, offering an integrated environment for creating and executing automated tests with a user-friendly interface.

Figma: Figma is a cloud-based design tool for creating user interfaces and prototypes. It supports real-time collaboration, vector graphics, and integrates well with other tools, making it ideal for web and app design.

Kafka: Kafka is a distributed streaming platform used to build real-time data pipelines and applications. It handles large volumes of data, providing high throughput, fault tolerance, and scalability.

CHAPTER 4: CHALLENGES

4.1.Debugging Complex Code and Troubleshooting Software Issues

One of the most significant challenges encountered was debugging complex code and troubleshooting software issues. This task demanded meticulous attention to detail and persistence. Identifying and resolving bugs often required deep dives into the codebase to understand how different components interacted. Tracking down issues in complex, interconnected systems necessitated a methodical approach to isolate and fix problems without introducing new bugs.

4.2.Understanding the Laravel MVC Framework

Initially, understanding the Laravel MVC (Model-View-Controller) framework was quite challenging. As a comprehensive and feature-rich framework, Laravel has a steep learning curve for those unfamiliar with its structure and conventions. Learning how to properly utilize models, views, and controllers to build a cohesive application took considerable time and effort. Additionally, initially learning and creating routes was new and required substantial practice to get right. Understanding how to define and manage routes efficiently was critical for ensuring that the application's navigation was smooth and logical.

4.3.Handling Git Commits and Merge Conflicts

Another difficulty was handling Git commits and merge conflicts. With multiple developers working on the same project, merging code changes often led to conflicts. These conflicts arose when changes from different developers overlapped or contradicted each other. Resolving them required careful merging, adherence to good version control practices, and effective communication with team members. Ensuring that everyone was on the same page regarding the project's progress and changes was crucial to avoid misunderstandings and further conflicts.

4.4.Effective Communication and Coordination

In addition to the technical challenges, ensuring effective communication and coordination among team members was essential. With multiple developers contributing to the project, it was important to have regular check-ins and discussions to align on the project's direction and progress. This helped in preemptively addressing potential conflicts and ensuring that everyone was working towards the same goals.

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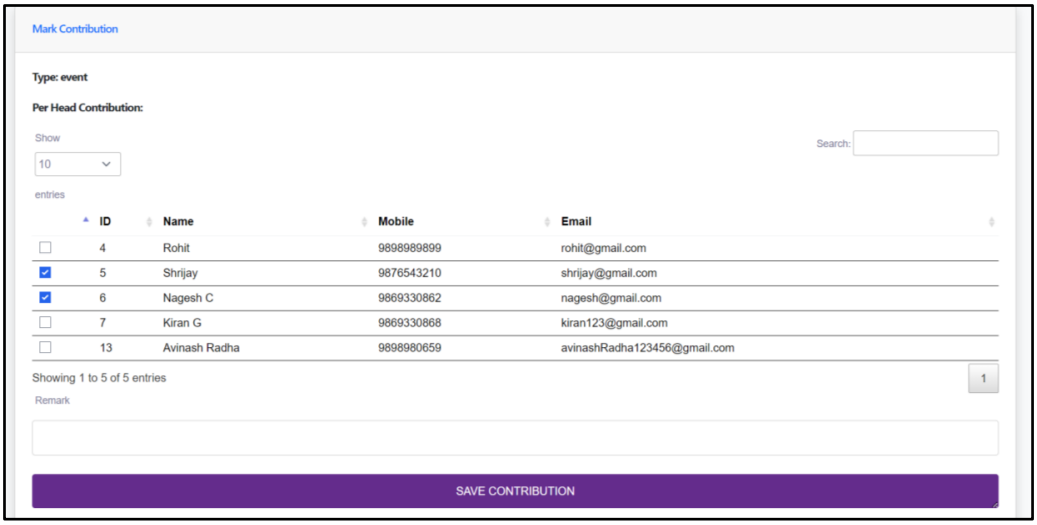
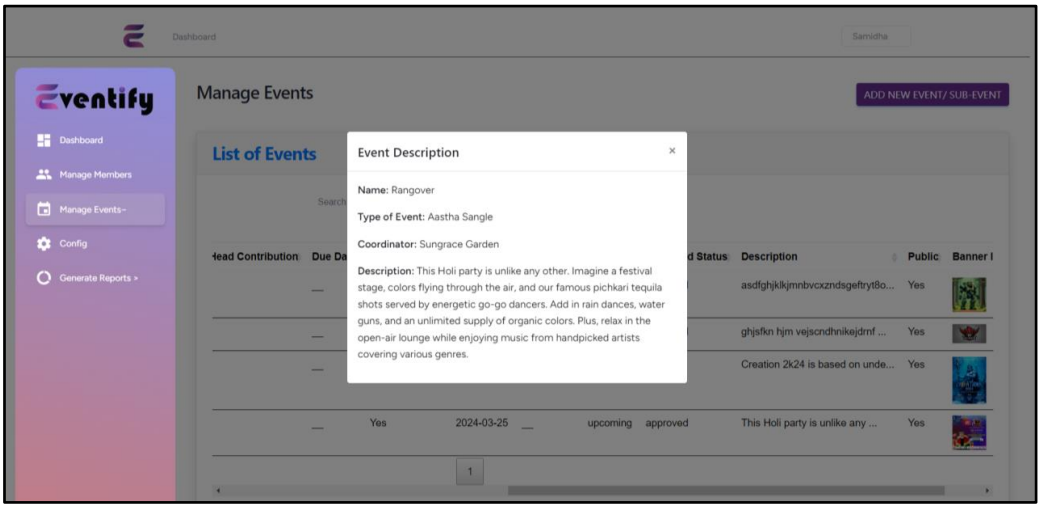
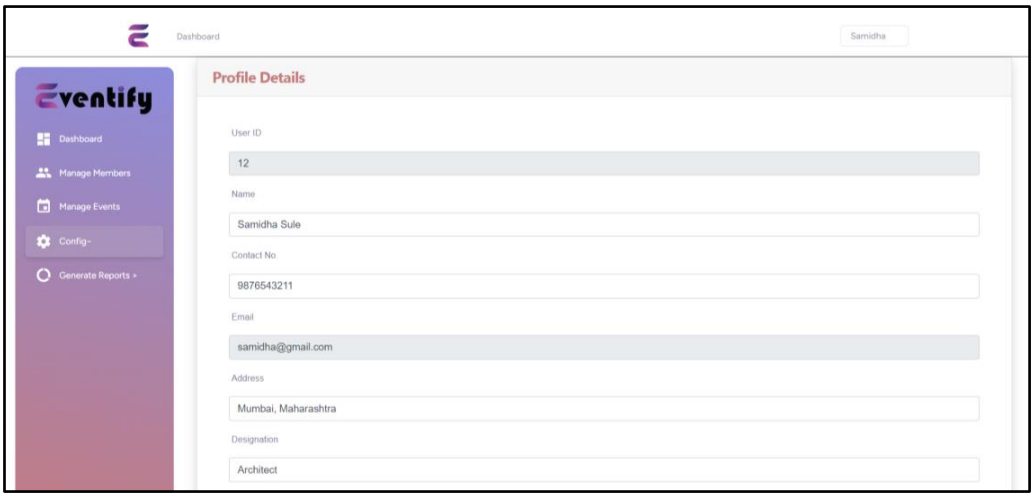
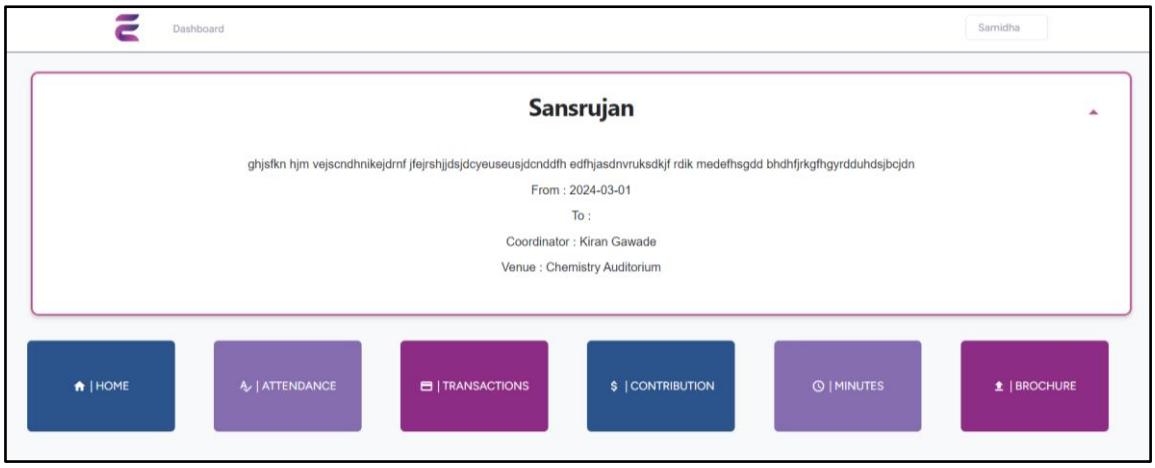
- https://docs.cypress.io/guides/end-to-end-testing/writing-your-first-end-to-end-test
- https://eslint.org/docs/latest/use/getting-started
- https://www.atlassian.com/git
- https://www.google.com/
- https://www.youtube.com/
- https://stackoverflow.com/

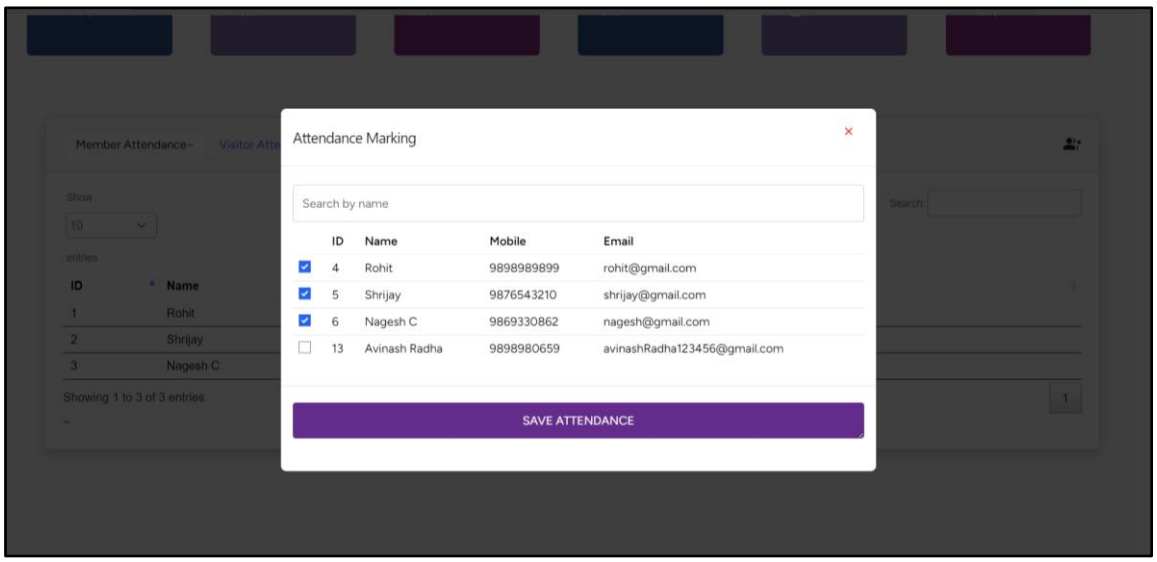
APPENDIX I: SAMPLES OF THE WORK DONE

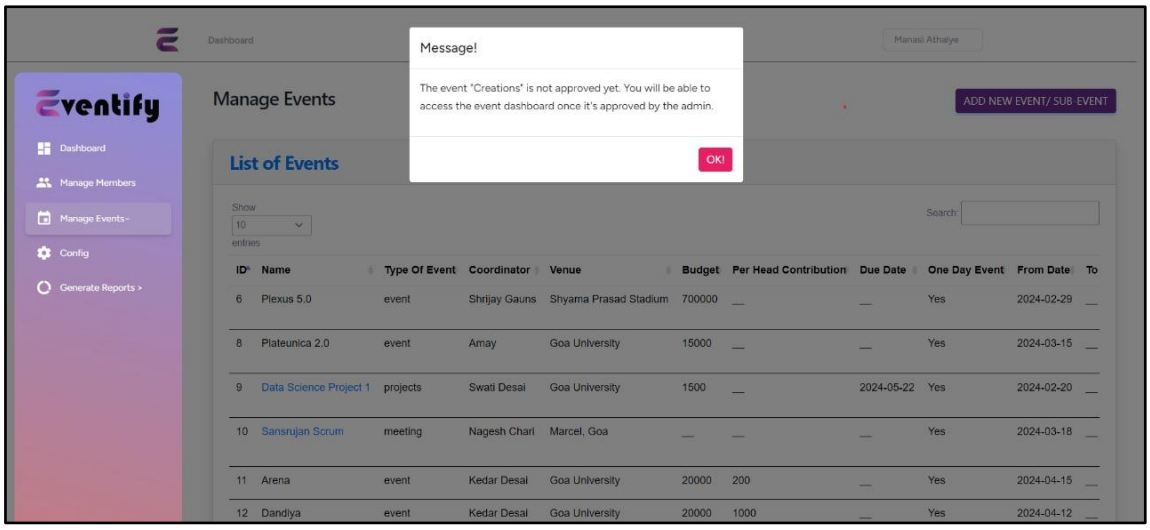







Dashboard
Samidha
Sansrujan
ghjsfkn hjm vejscndhnikejdrnf jfejrshjjdsjdcyeuseusjdcnddfh edfhjasdnvruksdkjf rdik medefhsgdd bhdhfjrkgfhgyrdduhdsjbcjdn
From : 2024-03-01
To :
Coordinator : Kiran Gawade
Venue : Chemistry Auditorium
| HOME
| ATTENDANCE
| TRANSACTIONS
| CONTRIBUTION
| MINUTES
| BROCHURE


Attendance Marking
Search by name
ID Name Mobile Email
4 Rohit 9898989899 rohit@gmail.com
5 Shrijay 9876543210 shrijay@gmail.com
6 Nagesh C 9869330862 nagesh@gmail.com
13 Avinash Radha 9898980659 avinashRadha123456@gmail.com
SAVE ATTENDANCE


Eventify
Dashboard
Manage Members
Manage Events
Config
Generate Reports
Manage Events
ADD NEW EVENT/ SUB-EVENT
Message!
The event "Creations" is not approved yet. You will be able to access the event dashboard once it's approved by the admin.
OK!
List of Events
ID Name Type Of Event Coordinator Venue Budget Per Head Contribution Due Date One Day Event From Date
6 Plexus 5.0 event Shrijay Gauns Shyama Prasad Stadium 700000 Yes 2024-02-29
8 Plateunica 2.0 event Amay Goa University 15000 Yes 2024-03-15
9 Data Science Project 1 projects Swati Desai Goa University 1500 2024-05-22 Yes 2024-02-20
10 Sansrujan Scrum meeting Nagesh Charl Marcel, Goa Yes 2024-03-18
11 Arena event Kedar Desai Goa University 20000 200 Yes 2024-04-15
12 Dandiya event Kedar Desai Goa University 20000 1000 Yes 2024-04-12

APPENDIX II: PHOTOS WHILE YOU ARE AT WORK