



SANSRUJAN

REPORT OF INTERSHIP DONE AT

**AVINASH BODHRAJ RADHA
2227**

SANSRUJAN INFORMATION TECHNOLOGY

GOA UNIVERSITY

Internship Report

An Internship Report for

Course code and Course Title: CSA-652 - Industry Internship / Software Project
Development

Credits: 16

Submitted in partial fulfilment of MCA Degree

For Semester IV.

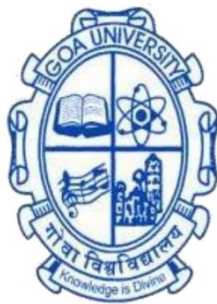
By

Avinash Bodhraj Radha

Roll Number: 2227

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, “Internship at Sansrujan Information Technology” is based on the results of investigations carried out by me in the Master’s In Computer Application (MCA) at the Goa Business School, Goa University 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/college 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.

Avinash Bodhraj Radha

Seat no: 2227

Date:

Place: Goa University

COMPLETION CERTIFICATE

This is to certify that the **Internship report** is a bonafide work carried out by Avinash Bodhraj Radha 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
Date:
Place: Goa University

School/Department Stamp

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.

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OFFER LETTER

SANSRUJAN
UDYAM-GA-02-0002739



To,
Avinash Radha,
Goa Business School
Goa University
Goa,

Date: 15-Jan-2024

Offer of Internship

Dear Avinash, 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: Radha

Date: 15-Jan-2024

Place: Marcela - Goa

SANSRUJAN INFORMATION TECHNOLOGY

Shounak S Deshpande

PROPRIETOR
Sansrujan Information Technology

<https://sansrujan.in>

Hs no.677, Devlay, Khandola, Marcel - Goa.

Internship (Completion) Certificate



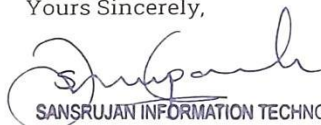
TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Avinash B. Radha, student of Masters of Computer Applications (MCA) of Goa University, Goa is currently undergoing his final semester – Industry Internship (Semester IV) at our company, Sansrujan Information Technology from 15th January till 15th June 2024.

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

This certificate has been issued on his 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/>

Executive Summary

During my internship, I had the opportunity to work with Sansrujan Information Technology focused on web and mobile application development. Over the span of my internship, I engaged in a wide array of tasks that encompassed backend and frontend development, debugging, and enhancing user interaction features. My work revolved primarily around Laravel, PHP, HTML, and React Native, providing me with substantial exposure to modern web and mobile application frameworks.

Organisation:-

The organization is dedicated to providing innovative software solutions, with a strong emphasis on user experience and robust functionality. The team I worked with was collaborative and supportive, contributing to a productive and enriching internship experience. The company follows agile methodologies, ensuring continuous development and iterative improvement through regular sprint meetings and knowledge-sharing sessions.

Tasks Handled:-

Throughout my internship, I handled numerous tasks that significantly contributed to my professional growth. Initially, I set up development environments by installing XAMPP, Laravel, and necessary tools. I added new routes, controllers, and functionalities to existing software, focusing on core details and debugging. I also played a pivotal role in UI/UX enhancements, such as integrating text editors and implementing new modules. As the internship progressed, I contributed to creating and displaying tables, developing modal and form features, and implementing complex functionalities like activating/deactivating buttons and a wallet report module.

In the later weeks, I transitioned to mobile app development using React Native. I set up the development environment, resolved installation issues, and initiated project structures. I also added essential features such as a Forgot Password screen and worked on enhancing user interface elements like vector icons and splash screens.

Learnings:-

This internship was a comprehensive learning journey, allowing me to gain expertise in various technologies and development practices. I learned the intricacies of Laravel and React Native, honed my skills in PHP and JavaScript, and understood the importance of clean and efficient code through tools like ESLint. I also improved my debugging skills, learned about database management, and enhanced my understanding of UI/UX principles.

Regular participation in sprint and scrum meetings improved my ability to work within an agile framework, emphasising the importance of iterative development and team collaboration. Additionally, attending knowledge sessions on topics like Postman, Arduino, Figma, and Digital Marketing broadened my technical knowledge and provided insights into complementary domains.

Challenges Faced:-

Throughout the internship, I encountered several challenges that tested my problem-solving abilities. Debugging existing code and resolving installation issues were among the initial hurdles. Integrating new functionalities without disrupting existing ones required careful planning and meticulous coding. Ensuring cross-platform compatibility and addressing UI/UX issues in mobile app development were other significant challenges.

Another notable challenge was effectively using GitHub for version control and collaboration. Managing branches, handling merge conflicts, and ensuring seamless collaboration with the team required a steep learning curve. Through this, I learned the best practices for version control, which improved my workflow and coordination with the team.

Working on vendor-related functionalities presented its own set of challenges, particularly in managing data tables, fixing broken features, and ensuring smooth vendor registration and approval processes. Each challenge, however, was an opportunity to learn and grow, helping me become more adept at troubleshooting and developing resilient solutions.

CHAPTER1: 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 member at Goa University in 2023, highlighting his significant contributions to technology and education.

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

CHAPTER2: Task(s) handled

Overview:

Designing a User Interface for Presenting Transaction Details in a Structured Format

My Responsibilities:

- Retrieve and display data using SQL functions
- Develop a new module that includes routes, views, and controllers

Tools and Technologies Used:

- VS Code
- Laravel
- HTML, CSS
- MySQL

Vendor Register Form for the Event Management website

Overview

The Vendor Register Form allows vendors to register on the Event Management website. After successful registration, vendors will have the option to log in. The registration data will be saved and require approval by an admin before vendors can access the login form.

My Responsibilities:

- Validate the registration form on both the frontend and backend.
- Ensure user data is securely saved in the database.
- Implement an admin approval system for vendor access to the login form.
- Perform unit testing and debugging to ensure the form functions correctly.

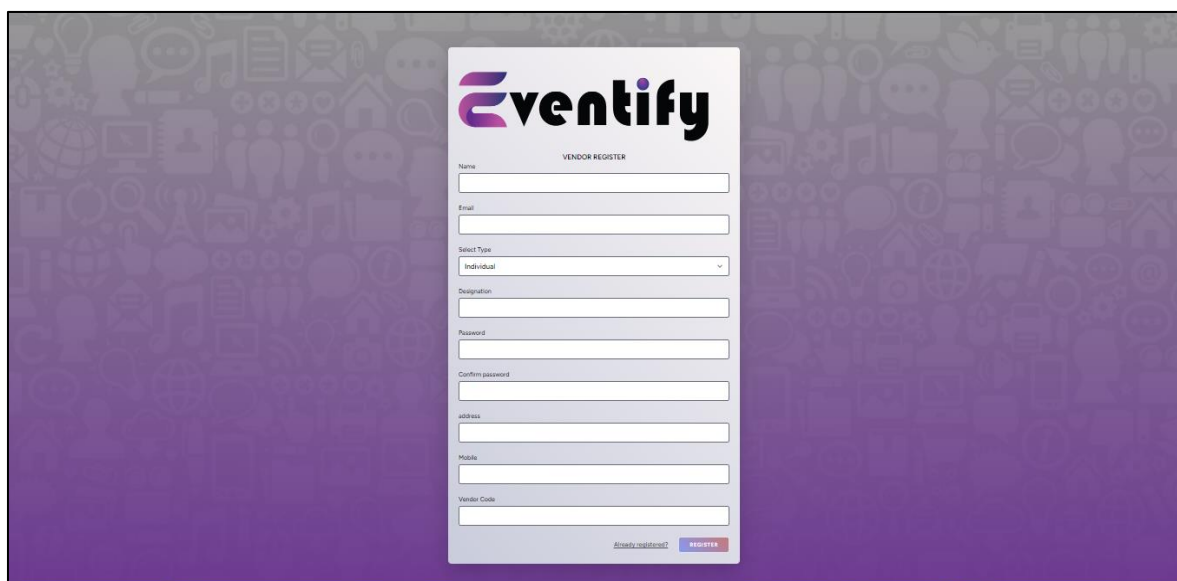
Tools And Technologies:-

VS Code

Php

Laravel

Xampp

The image shows a web form titled "Eventify VENDOR REGISTER" on a purple background with a pattern of white icons. The form is a light gray box with the following fields: "Name" (text input), "Email" (text input), "Select Type" (dropdown menu with "Individual" selected), "Designation" (text input), "Password" (text input), "Confirm password" (text input), "address" (text input), "Mobile" (text input), and "Vendor Code" (text input). At the bottom right of the form is a red "REGISTER" button. A small link "Already registered?" is located at the bottom left of the form.

Vendor Login form for the Event Management Website

Overview

Vendor Login Form after admin approval

My Responsibilities:

After registration vendor will get approved by admin, than he will login and access the vendor dashboard

Tools and Technologies Used:


VS Code

Php

Laravel

Xampp

MySQL



The image shows a screenshot of a web application's vendor login form. The form is centered on a purple background with a pattern of small, light-colored icons. The form itself is a light purple rectangle. At the top of the form is the 'Eventify' logo, which consists of a stylized 'E' in purple and blue followed by the word 'eventify' in black. Below the logo is the text 'VENDOR LOGIN'. Underneath this are two input fields: one for 'Email' and one for 'Password'. Below the password field is a checkbox labeled 'Remember me'. At the bottom right of the form is a link that says 'Forgot your password?' and a purple button labeled 'LOG IN'.

Removal of Duplicates and Mandatory non mandatory access to the website

Overview

This task involves ensuring that duplicate entries are removed from the vendor database and implementing a system to manage access based on mandatory and non-mandatory criteria

Responsibilities:

- Identify and remove duplicate entries from the vendor database.
- Develop algorithms to detect and prevent future duplicate entries.
- Implement access control mechanisms to distinguish between mandatory and non-mandatory access levels.
- Design and enforce rules for mandatory fields during the registration process.

Tools and Technologies Used:

VS Code

Php

Laravel

Xampp

MySQL

Vendor Register Validation to the website

Overview

The Vendor Register Validation task ensures that the data submitted through the vendor registration form is accurate, complete, and secure before being saved to the database.

Responsibilities:

- Implement client-side validation for the registration form using JavaScript.
- Develop server-side validation logic to verify data integrity and security.
- Ensure all mandatory fields are correctly filled out and meet the required criteria.
- Check for duplicate entries to prevent multiple registrations with the same information.

Tools and Technologies Used:

VS Code

Php

Laravel

Xampp

MySQL

HTML/CSS

JavaScript

Vendor Dashboard Stats for website

Overview

The dashboard will display data such as the number of events participated in, revenue generated, pending tasks, and other relevant metrics to help vendors manage their activities effectively.

Responsibilities:

- Gather and display key statistics and metrics relevant to vendor activities.
- Develop backend logic to fetch and process data for the dashboard.
- Ensure real-time or periodic updates of the displayed statistics.
- Provide filters and options for vendors to customize the displayed data.

Tools and Technologies Used:

VS Code

Php

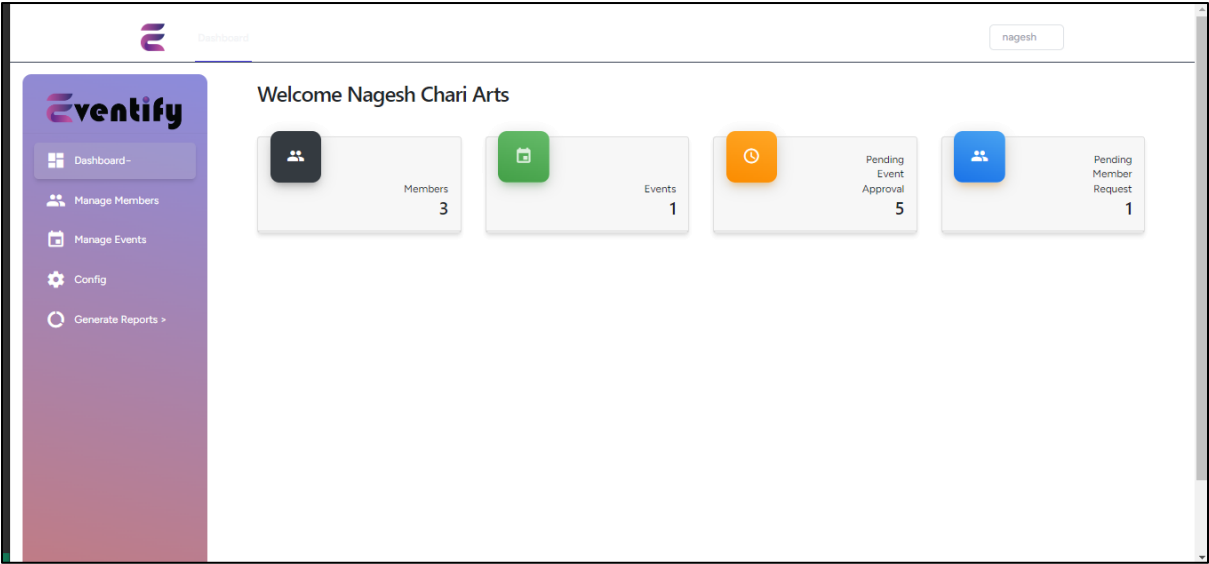
Laravel

Xampp

MySQL

JavaScript

HTML/CSS



Vendor Register Error Message at Respective Input Textbox

Overview

The Vendor Register Error Message task involves implementing a feature that displays error messages directly at the respective input fields on the vendor registration form.

My Responsibilities:

- Implement client-side validation using JavaScript to catch errors in real-time.
- Develop backend validation logic in PHP/Laravel to ensure data integrity and security.
- Display error messages next to the respective input fields when validation fails.
- Ensure error messages are clear, concise, and user-friendly.
- Style the error messages to make them visually distinct and noticeable.

Tools and Technologies Used:

VS Code

Php

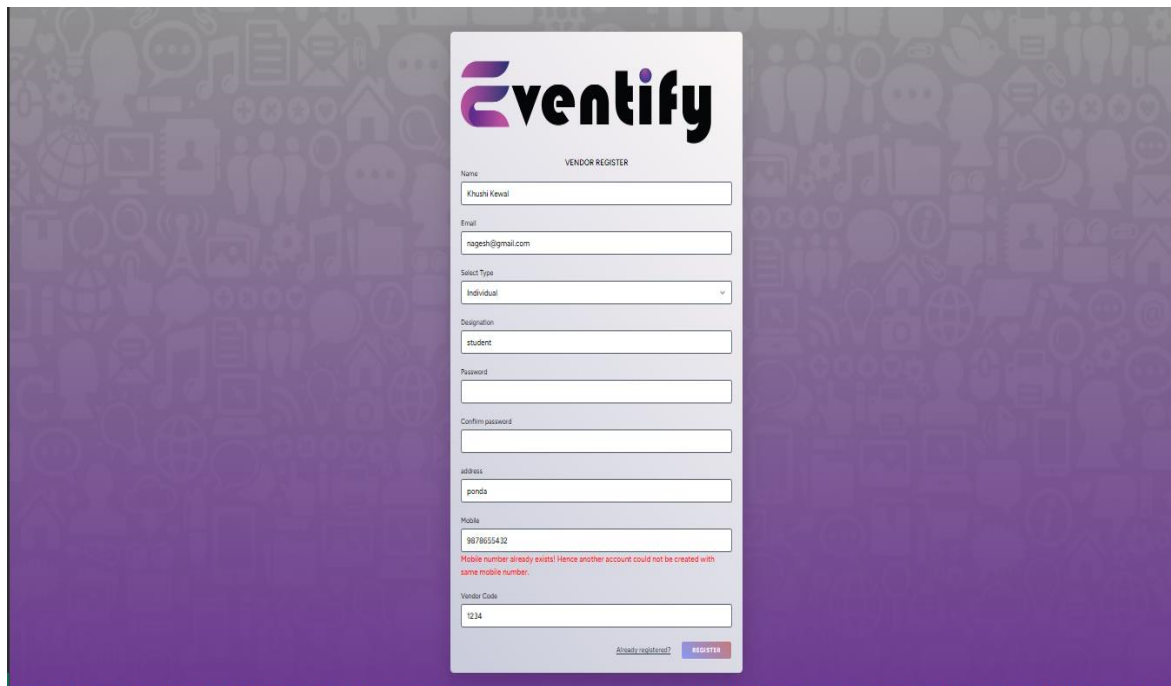
Laravel

Xampp

MySQL

JavaScript

HTML/CSS



The image shows a screenshot of the Eventify website's vendor registration form. The background is a dark purple with a pattern of white icons representing various event-related concepts like people, music, and technology. The form itself is a light purple rectangle with a white border. At the top of the form is the Eventify logo, which consists of a stylized 'E' in purple and blue followed by the word 'eventify' in black. Below the logo is the title 'VENDOR REGISTER'. The form contains several input fields: 'Name' with the value 'Khushi Kewal', 'Email' with 'nagesh@gmail.com', 'Select Type' with a dropdown menu showing 'Individual', 'Designation' with 'student', 'Password' (empty), 'Confirm password' (empty), 'Address' with 'panda', 'Mobile' with '9878655432', and 'Vendor Code' with '1234'. A red error message is displayed below the mobile number field: 'Mobile number already exists! Hence another account could not be created with same mobile number.' At the bottom of the form, there is a link 'Already registered?' and a blue 'REGISTER' button.

Eventify

VENDOR REGISTER

Name
Khushi Kewal

Email
nagesh@gmail.com

Select Type
Individual

Designation
student

Password

Confirm password

Address
panda

Mobile
9878655432

Mobile number already exists! Hence another account could not be created with same mobile number.

Vendor Code
1234

[Already registered?](#) **REGISTER**

Member Registration

Overview

The Member Registration involves creating a registration form for individuals who wish to join the Event Management website as members, volunteers, or other roles. The form will collect necessary information, validate it, and store it securely in the database.

My Responsibilities:

- Design and implement a user-friendly registration form with options to register as a member, volunteer, or other.
- Develop backend logic to process and store registration data securely.
- Implement frontend validation to ensure all mandatory fields are correctly filled out.
- Implement backend validation to ensure data integrity and security.
- Provide feedback and confirmation to users upon successful registration.
- Ensure the form is responsive and accessible across different devices and browsers.

Tools and Technologies Used:

VS Code

Php

Laravel

Xampp

MySQL

JavaScript

HTML/CSS

Member Registration

Fill in the following details:

Name

Contact No.

Email


Vendor Code

Enrol As

Register As

Select

Register Me



- Dashboard
- Manage Members
- Manage Events
- Config
- Generate Reports >

Sponsor Report

ID	Sponsorer Name	Transaction Name	Event Name	Amount	Remark	Created At	Updated At
19	Safwan Shaikh	Chanda	Dandiya	4050	Plataunica	2024-03-12 09:42:42	2024-03-12 09:42:42
20	Kiran Gawade	Donation	Dandiya	5000	Events2	2024-03-12 10:20:27	2024-03-12 10:20:27

Sponsor Report

Overview

This report will provide detailed insights into sponsor contributions, activities, and engagement with various events. It will help administrators and event organizers track sponsorship performance and make informed decisions.

My Responsibilities:

- Design and implement a report generation system for sponsors.
- Develop backend logic to fetch and process sponsorship data from the database.
- Create detailed and user-friendly reports with relevant metrics and visualizations.
- Implement filters and search functionality to allow users to customize the report view.

Tools and Technologies Used:

VS Code

Php

Laravel

Xampp

MySQL

JavaScript

HTML/CSS

Integrated Chabot in Web Application

Overview

The Integrated Chabot involves incorporating a Chabot into the Event Management website to assist users with common queries, provide event information, and enhance user interaction.

My Responsibilities:

- Design and implement the Chabot interface for seamless integration with the website.
- Develop the backend logic to handle Chabot interactions and provide relevant responses.
- Implement features for the Chabot to assist with registration, event information, FAQs, and other common tasks.
- Continuously update and improve the Chabot's knowledge base and response accuracy.
- Conduct thorough testing to ensure the chatbot functions correctly and provides accurate information.

Tools and Technologies Used:

VS Code

Php

Laravel

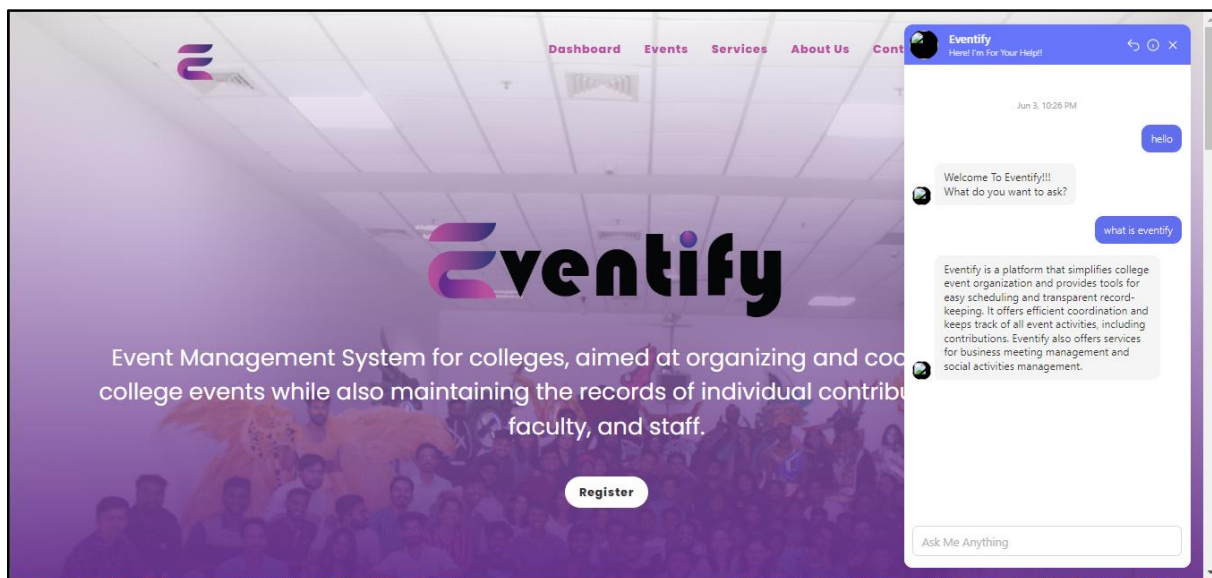
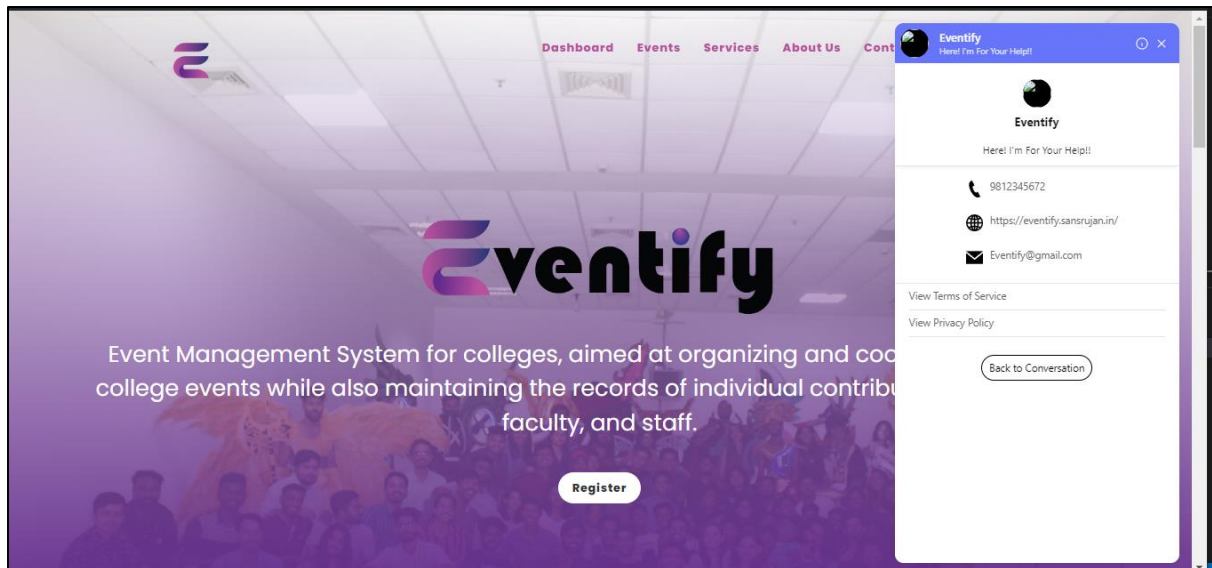
Xampp

MySQL

JavaScript

HTML/CSS

Botpress.io



On boarding UI Screens

Overview

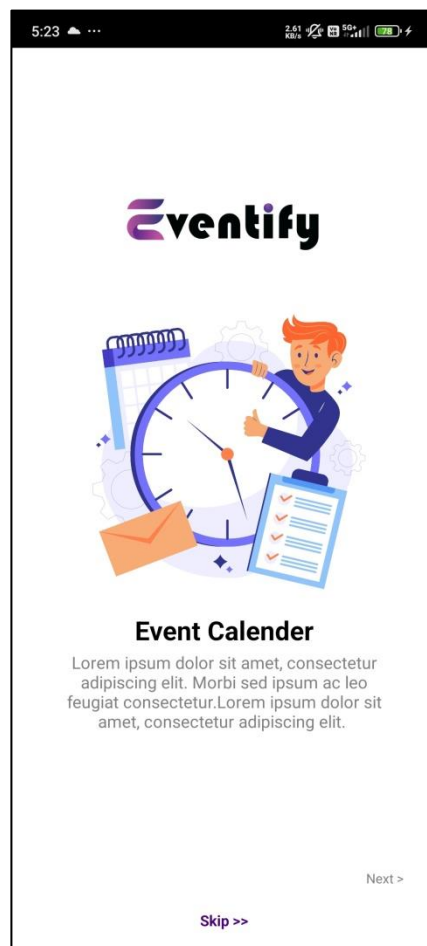
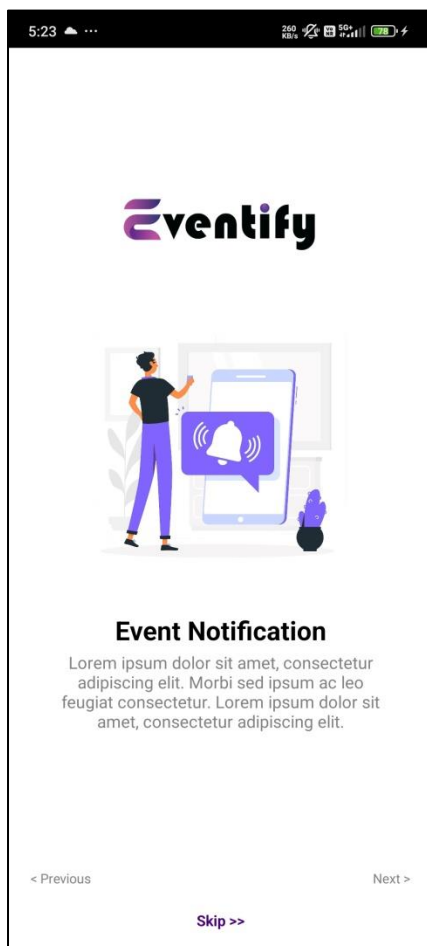
Design and implement a user-friendly interface for the on boarding process in the mobile application, guiding users through initial setup and introducing key features.

My Responsibilities:

- Design and implement a responsive and intuitive UI.
- Add input fields for user information and preferences.

Tools and Technologies Used:

- VS Code/Android Studio
- React Native
- Git



Displayed Member Email on the Dashboard

Overview

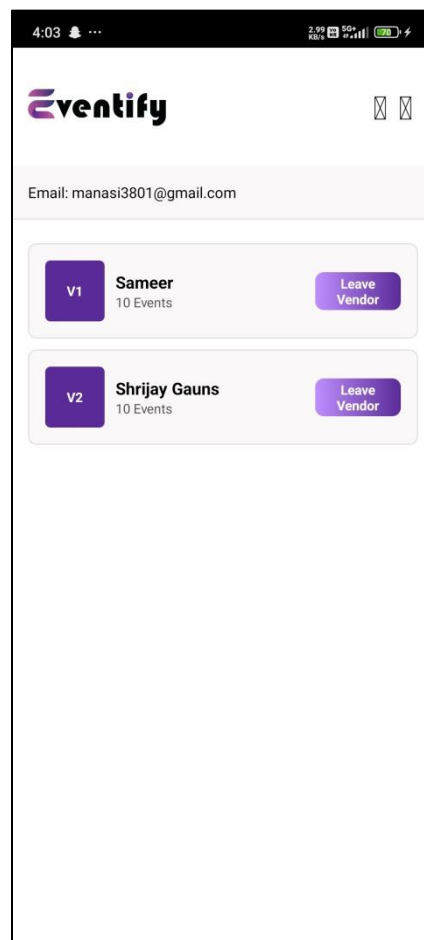
Implement a feature that displays the logged-in member's email address on the dashboard of the mobile application. This provides users with quick access to their account information.

My Responsibilities:

- Fetch the logged-in member's email from the backend.
- Display the email prominently on the dashboard.

Tools and Technologies Used:

- VS Code/Android Studio
- React Native
- Git
- Axios



Email Verification on Member Registration

Overview

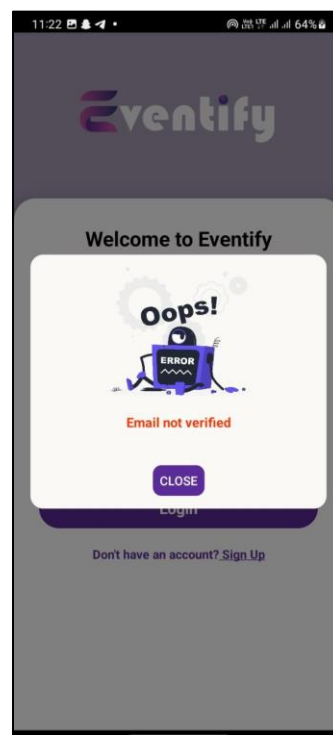
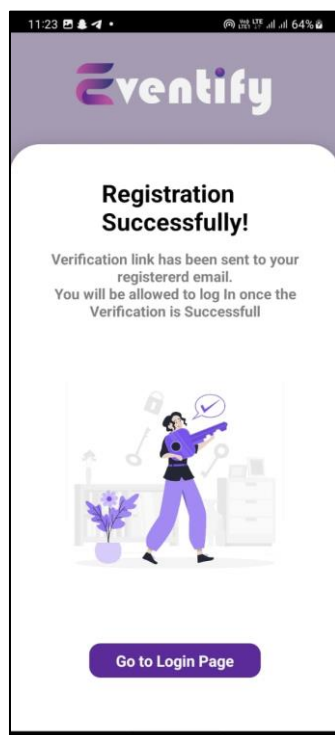
Implement email verification during member registration to ensure users verify their email addresses before accessing the app's features.

My Responsibilities:

- Integrate email verification into the registration process.
- Send verification emails upon registration.
- Develop backend logic for handling verification links.
- Display UI messages for verification status.

Tools and Technologies Used:

- VS Code/Android Studio
- React Native
- Firebase
- Git
- Axios



Laravel Security Practices Implemented in the Project:

1. Disabling debug messages in production

When deploying an application to production, it's important 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.

2. 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 added a CSRF token to our forms, which Laravel validated 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>
```

@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.

Benefits: -

Security: Prevented attackers from making unauthorized requests on behalf of authenticated users.

Ease of Use: Laravel automatically validated the CSRF token on form submissions.

3. Validating User Input

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

Example: -

```
use Illuminate\Support\Facades\Validator;

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 ($validator->fails()) {
        return Redirect::back();
    }
}
```

Benefits

- Security: Prevented malicious data from entering the system by validating inputs against specific rules.
- Data Integrity: Ensured that the data stored in the database met 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.

4. Handling Uploaded Files

As with any user input, 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:-

```
$validated = $request->validate ([ 'file' => 'required|mimes:gif,jpeg,png,webp', ] );
```

Benefits

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

CHAPTER 3: LEARNINGS

Tools and Technologies:



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 building 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.

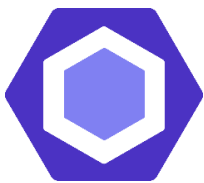


Firebase: A comprehensive platform developed by Google for creating mobile and web applications. It offers a suite of tools and services such as real-time databases, authentication, cloud storage, analytics, and hosting, enabling developers to build and scale apps quickly without managing the backend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

During my internship at Sansrujan Information Technology, I faced several significant challenges that enhanced my professional growth. Setting up development environments with XAMPP and Laravel was initially difficult due to version mismatches and dependency conflicts, but I overcame these with team guidance and thorough documentation. Debugging complex code in both backend (PHP, Laravel) and frontend (React Native) required meticulous attention to detail, which I developed through tools like step-by-step execution and logging, along with senior developer support.

Integrating new UI/UX features and balancing aesthetics with functionality was complex, but close collaboration with the design team and iterative feedback helped me succeed. Adapting to agile methodologies, participating in sprint and scrum meetings, and aligning with team goals improved my time management and communication skills. Transitioning to mobile development with React Native presented a steep learning curve, but through online resources and team support, I became proficient and successfully implemented key features.

Developing advanced functionalities, such as activating/deactivating buttons and creating a wallet report module, required breaking down tasks and thorough testing to ensure successful implementation. Keeping up with new tools like Postman, Arduino, Figma, and Digital Marketing concepts was overwhelming, but knowledge-sharing sessions and self-study enriched my technical skills. These challenges improved my problem-solving abilities, adaptability, and teamwork, crucial for a successful software development career.

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APPENDIX II: PHOTOS WHILE YOU ARE AT WORK

