

A COMPREHENSIVE B2B2B MULTI-TENANT SAAS SOLUTION FOR AGENCY AND CLIENT MANAGEMENT WITH STRIPE INTEGRATION

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ABSTRACT

The increasing demand for well organized client and project management solutions has led to the rise of SaaS-based platforms that simplify business operations. This research presents a scalable SaaS solution that enables agencies to manage clients, payments, and projects through three core features: a Stripe-integrated dashboard, a Kanban-based project management system, and a no-code funnel builder. The Stripeintegrated dashboard automates subscription management, transactions, and revenue tracking using Stripe Connect, ensuring seamless financial operations for agencies, clients, and the SaaS provider. The Kanban board simplifies task organization, team collaboration, and workflow tracking, improving project efficiency. The drag-and-drop funnel builder allows non-technical users to create sales funnels, integrate custom checkouts, and capture leads effortlessly. Built with Next.js 14 for frontend efficiency, Bun for runtime optimization, and Prisma for seamless database management, the platform ensures a futureproof architecture.

KEYWORDS

Software as a Service (SaaS), Business-to-Business-to-Business (B2B2B), Stripe Integration, Agency Management, Client Management, Kanban Board, Funnel Builder, MultiTenant Platform.

1. INTRODUCTION

The rapid adoption of Software-as-a-Service (SaaS) has transformed business operations, with 95% of organizations implementing SaaS technologies by 2023, up from 71% in 2018. Despite the widespread adoption of Software-as-a-Service (SaaS), many agencies still face operational bottlenecks due to disconnected systems. A major issue is fragmented financial management, where agencies must juggle multiple platforms for subscription billing, revenue tracking, and invoicing. For instance, while Stripe handles payment processing, agencies often need additional tools like QuickBooks or Xero for accounting, creating redundant workflows and increasing administrative burdens. Another challenge is inefficient client collaboration, as agencies often work with multiple clients simultaneously but lack dedicated, role-based access controls. Many rely on shared spreadsheets, email chains, or standalone CRM tools like Salesforce, which may not offer a streamlined way to manage sub-accounts, permissions, and real-time updates in a single environment.

This results in data silos, miscommunication, and security risks. Additionally, sales funnel management remains disjointed, with agencies using platforms like ClickFunnels for landing pages and Mailchimp for lead nurturing forcing teams to manually sync data between tools. This not only slows down lead conversion but also introduces errors in campaign tracking and sales reporting. Finally, agencies often struggle with scalability in project execution. While Trello and Asana offer task tracking, they lack financial automation, customizable workflows, and direct integrations with client payment portals. This makes it difficult for agencies to track billable hours, manage recurring payments, and measure ROI effectively.

To address these challenges, our Multi-Tenant SaaS platform provides a comprehensive solution tailored for agencies and their clients. With role-based access control, agencies can assign specific roles such as sub-account users, agency admins, and guests ensuring secure and structured collaboration. The platform integrates Stripe Subscription Plans, allowing agencies to manage recurring billing, application fees, and revenue distribution with ease. Stripe Connect ensures automated payment processing for agencies, clients, and platform providers, reducing financial complexities.



Fig. 1. B1 → B2 → B3 (Business Model of the SaaS Platform)

Figure 1 streamlines the flow from platform providers (B1) to agencies (B2) and their clients (B3), enabling seamless service scalability and client management. The platform also features a no-code funnel builder, enabling agencies to create custom sales funnels, checkout pages, and lead capture forms effortlessly. Through Stripe Product Sync, clients can list add-on products directly within their funnels to drive sales and lead generation. Additionally, agencies can integrate custom checkouts into funnels, providing a seamless payment experience for clients and customers.

The primary contribution of this paper is the enhancement of project execution and workflow management, the platform offers a Kanban-based project management system, allowing agencies to assign tasks, track progress, and optimize workflows efficiently. A media storage system ensures that agencies and clients can store and manage digital assets within a centralized environment, streamlining content usage for marketing campaigns. Real-time notifications keep teams and clients informed about project updates, payment statuses, and lead interactions, while performance analytics dashboards provide actionable insights into funnel conversions, revenue growth, and overall agency performance. Agency owners can also monitor sub-account metrics, ensuring greater visibility into client activities and business performance.

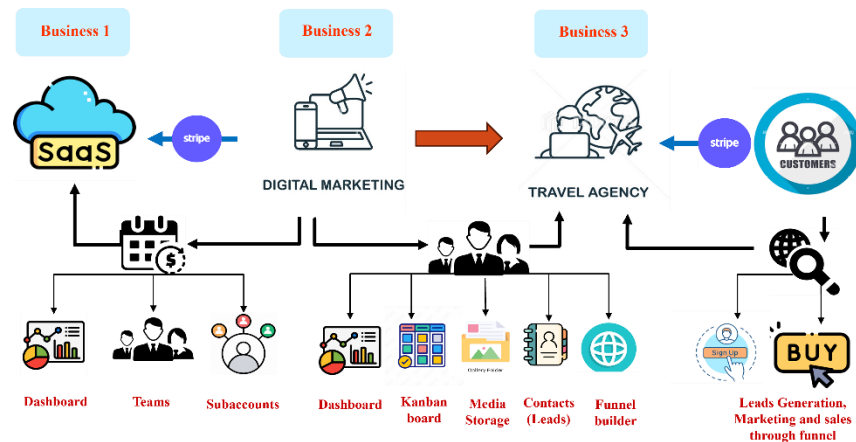


Fig. 2. Multi-Tenant Architecture of the SaaS Platform

Figure 2 enhances marketing and sales by enabling agencies to manage clients and drive client conversions efficiently.

2. LITERATURE REVIEW

The adoption of multi-tenant architecture in SaaS platforms has been widely studied for its scalability and efficiency. Shinu Pushpan (2024) provides a framework for building scalable SaaS applications, emphasizing resource sharing and customization [1]. Vo et al. (2023) assess SaaS models using Data Envelopment Analysis (DEA), highlighting the efficiency of multi-tenant systems [2]. Santhosh et al. (2024) further explore SaaS's impact on business scalability, noting its ability to reduce costs and improve resource utilization [3].

Dashboards play a critical role in SaaS platforms by enabling real-time data visualization and decision-making. Sukmandhani et al. (2022) design dashboards for service management, focusing on user-friendly interfaces and real-time analytics [8]. Holjevac and Jakopce (2020) explore the use of dashboards for data enrichment and operational efficiency [9]. Kobi (2024) develops advanced visualization tools for performance management and continuous improvement [10].

Sales funnels and CRM systems are essential for lead generation and customer journey optimization. Griva et al. (2023) analyze sales funnels, emphasizing the need for real-time analytics to track leads and conversions [12]. Abubakar et al. (2025) examine AI-powered CRM systems, highlighting their role in enhancing sales conversion and customer engagement [13]. Mero et al. (2022) discuss the importance of agile methodologies in SaaS implementation, particularly for startups using marketing automation [14].

Agile methodologies, especially Kanban, are widely adopted for project management in SaaS platforms. Purwanto et al. (2022) use Agile Kanban to improve workflow visibility and team collaboration [17]. Daraojimba et al. (2024) review agile methodologies, emphasizing their role in enhancing project efficiency and adaptability [18]. Camara et al. (2020) explore how agile practices help startups navigate uncertainties, such as the COVID-19 pandemic [19].

No-code development tools have democratized SaaS platform creation, enabling nontechnical users to build applications. Mamatha et al. (2023) discuss no-code tools for creating dashboards and funnels, simplifying development processes [16]. Maurya (2022) compares CMS platforms and website builders, highlighting their role in streamlining web development [20].

3. PROPOSED SYSTEM

3.1. Applications

Figure 3 illustrates the hierarchical structure of the Proposed SaaS Application, showcasing how different types of marketing agencies utilize the platform to manage their clients. The platform caters to various agencies, such as E-commerce Marketing Agencies handle clients such as Retail Store Businesses and Real Estate Firms, providing marketing solutions tailored to online sales and property listings. Digital Marketing Agencies serve clients such as Legal Firms and Travel Agencies, focusing on lead generation, online visibility, and customer engagement strategies.

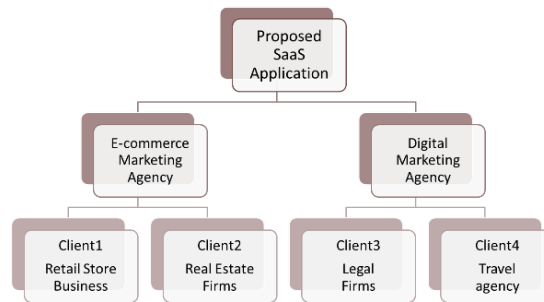


Fig. 3. Multi-Tenant Architecture of the SaaS Platform

3.2. Architecture

The system's architecture outlines key processes, technologies, and the overall operational flow, as shown in Figure 4. The platform's performance is structured around its core functionalities for Agency Owners, Team Members (Sub-Account Users), and Clients (SubAccount Guests). Access control ensures that Sub-Account Users, Guests, and Agency Admins can only access the system if the Agency Owner grants them permission; otherwise, an unauthorized access page will be displayed. This ensures that sensitive data, project workflows, and client information remain secure and accessible only to authorized users.

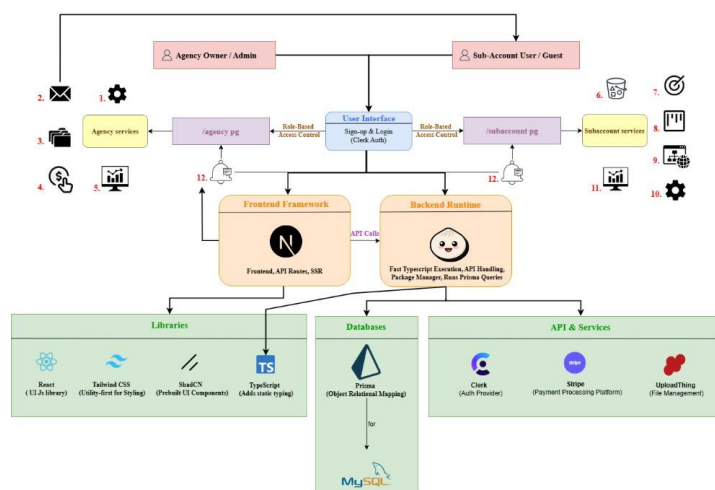


Fig. 4. Architecture diagram of the system

4. METHODOLOGY

The numbers in brackets denote the services illustrated in Figure 4, mapping each one to its respective module for better clarity:

4.1. Agency Owner Module

Agency Owners are equipped with tools to streamline operations and monitor performance. The Create Agency ensures seamless agency profile creation and management, enabling owners to establish their brand and operational framework [1]. The Invite Team Members highlights the ability to onboard team members with role-based permissions (e.g., admins, sub-account users, guests) by sending email invitations [2]. The Admin role, assigned by the Agency Owner, has full access to both the agency and all sub-accounts, while other roles have restricted access based on assigned permissions [3]. Manage Subscriptions tracks the efficiency of setting up and maintaining client subscription plans, while Stripe Integration measures the platform's success in automating payment processing, revenue sharing, and billing transparency [4]. The Dashboard serves as a central for real-time performance metrics, providing insights into income, potential income, active clients, agency goals (reflecting the number of subaccounts owned and managed), transaction history, and conversions to optimize decision-making [5]. Notifications act as a critical indicator for Agency Owners, alerting them to key activities such as team invitations, sub-account creations, and client interactions [12].

4.2. Team Members (Sub-Account Users) Module

Team Members, assigned to handle specific client sub-accounts, focus on execution and client-facing tasks. The Media Management evaluates the platform's ability to store and retrieve digital assets (images, videos) efficiently [6]. Contacts measures lead management effectiveness, including assigning estimated ticket values to prospects [7]. Pipelines track the adoption of Kanban boards for project management, ensuring workflow visibility and task prioritization [8]. Funnel Creation assesses the ease of building and editing multi-step marketing funnels using drag-and-drop tools, while Custom Domain Hosting quantifies the platform's capability to host client funnels on personalized domains [9]. The Sub-Account Dashboard offers critical insights into income, potential income, conversions, pipeline value, funnel performance, and transaction history, enabling teams to track financial and marketing performance effectively [11]. Notifications are a vital here, providing real-time alerts for funnel updates, pipeline progress, and team collaborations [12].

4.3. Clients (Sub-Account Guests) Module

Clients, who are the actual business owners, use the platform to monitor ongoing work, provide feedback, and request edits. The Signup/Login ensures a frictionless onboarding experience. Leads (Customers) measures lead-generation efficiency through funnel analytics and ticket value assignments [7]. Visit Funnels evaluates client engagement by enabling them to view, interact with, and edit hosted funnels, ensuring alignment with their marketing strategies [8].

4.4. Unified Notifications System

The Notifications feature is integrated into both the Agency Owner and Team Members (Sub-Account Users) modules. It ensures transparency by alerting users to critical activities such as team invitations, sub-account creations, contact additions, funnel edits, and payment updates.

This real-time communication enhances collaboration and operational agility across all user roles [12].

5. RESULTS

This section presents the outcomes of the implemented system through detailed screenshots. Each image demonstrates key functionalities, user interactions, and system behaviour, providing a clear visualization of the developed features. These results validate the effectiveness and usability of the proposed solution.

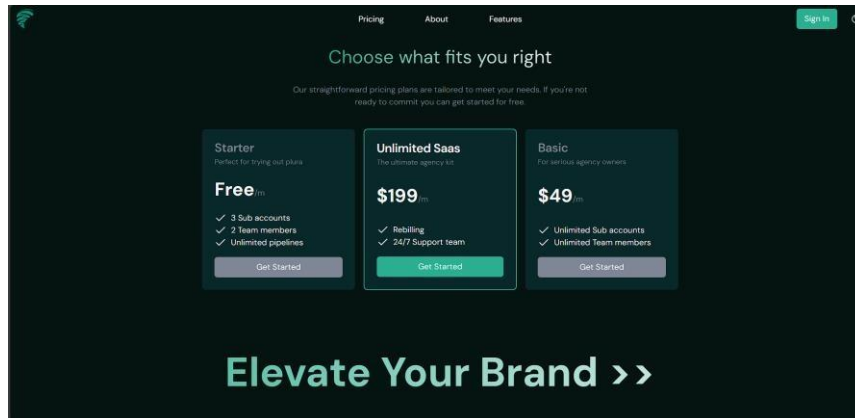


Fig. 5. Homepage

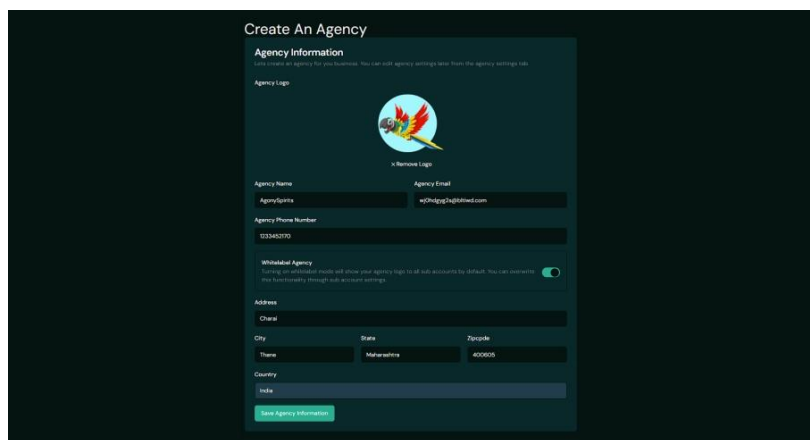


Fig. 6. Agency Registration

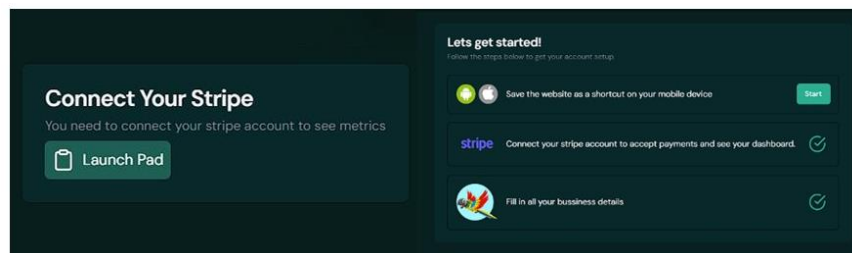


Fig. 7. Launchpad for Stripe Integration

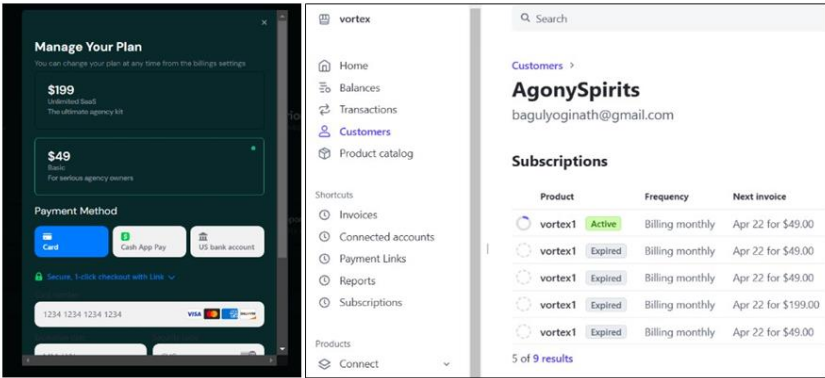


Fig. 8. Stripe for Managing Payments and Subscriptions for Both Agencies and SaaS Providers

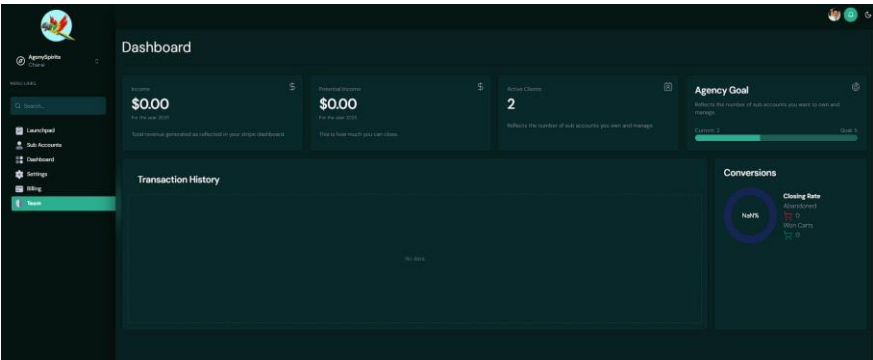


Fig. 9. Agency Dashboard

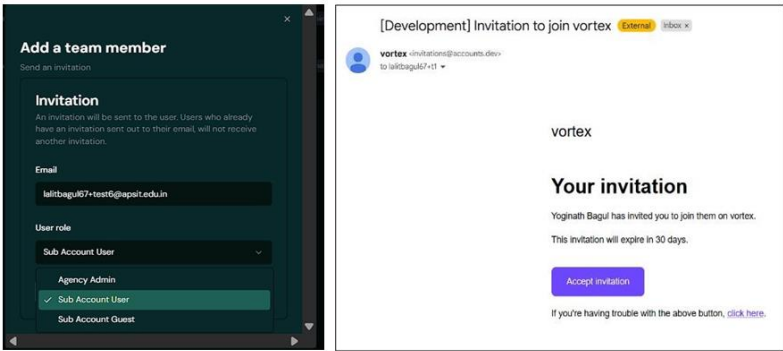


Fig. 10. Add Team Members by Sending Mail Invitation

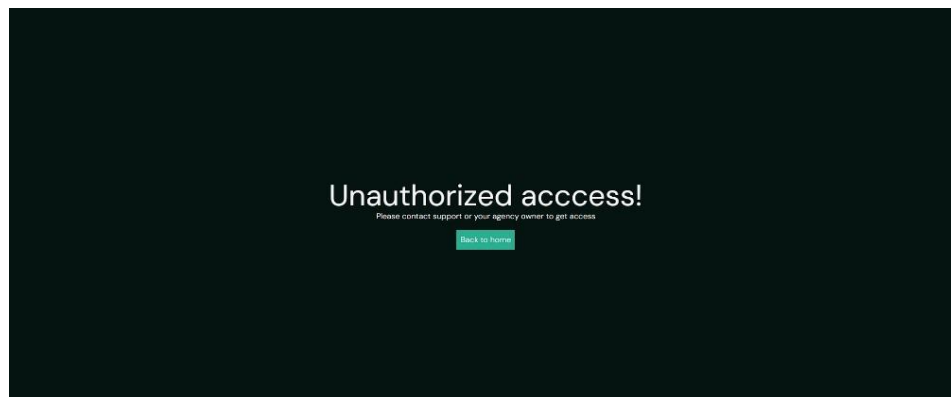


Fig. 11. Agency admin and Sub Account Access not provided until Agency owner gives Permission

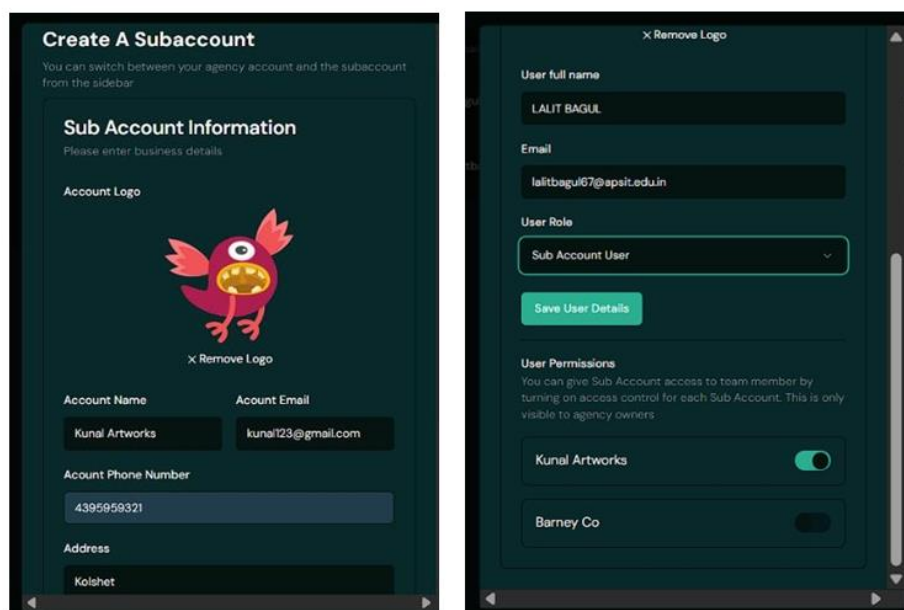
Two side-by-side screenshots of a mobile app. The left screen is titled "Create A Subaccount" and shows a form for "Sub Account Information". It includes fields for "Account Logo" (with a cartoon bird icon), "Account Name" (Kunal Artworks), "Account Email" (kunal123@gmail.com), "Account Phone Number" (4395959321), and "Address" (Kolshet). The right screen is titled "User Permissions" and shows a form for "User full name" (LALIT BAGUL), "Email" (lalitbagul67@apsit.edu.in), and "User Role" (Sub Account User). It also has a "Save User Details" button and a section for "User Permissions" with toggle switches for "Kunal Artworks" (on) and "Barney Co" (off).

Fig. 12. Creating Sub Account and Assigning Team Member to it



Name	Email	Owned Accounts	Role
 Yoginath Bagul	bagulyoginath@gmail.com	Agency - AgonySpirits	AGENCY_OWNER
 LALIT BAGUL	lalitbagul67@apsit.edu.in	Sub Account - Kunal Artworks	SUBACCOUNT_USER

Fig. 13. Tracking Each User Role Efficiently

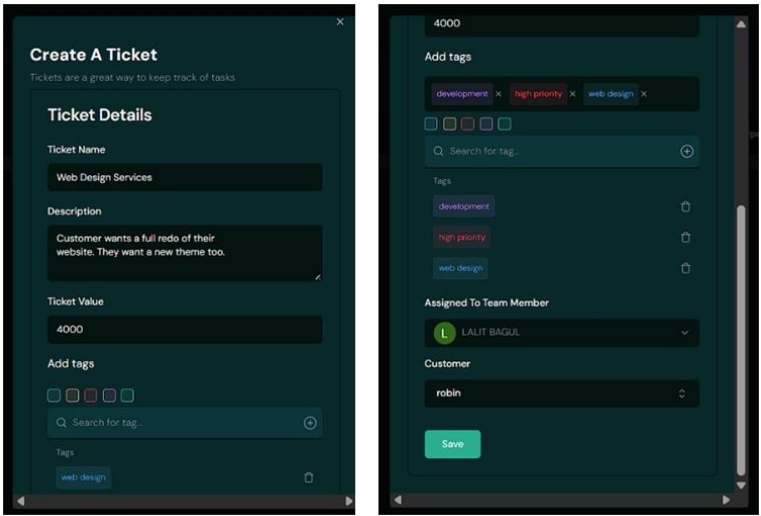


Fig. 14. Creating Tickets for Kanban Board

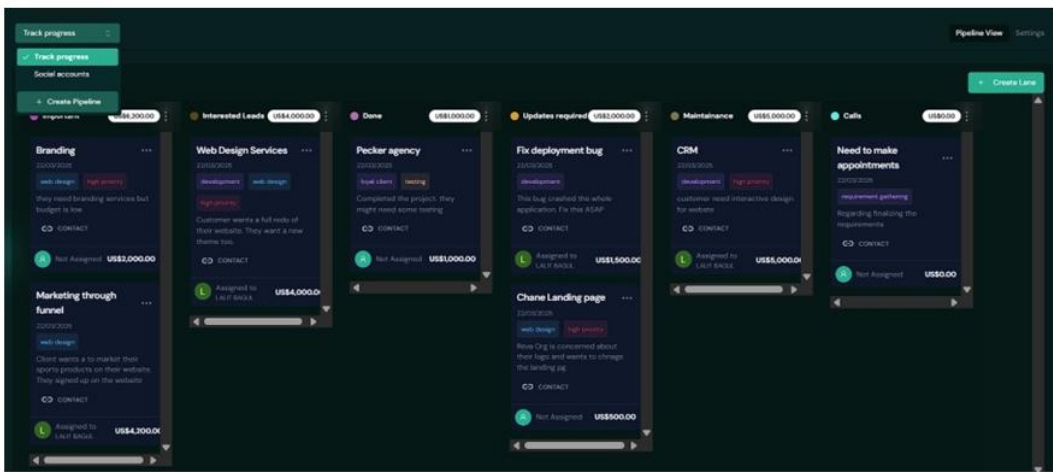


Fig 15 Edit Manage Pipelines and its Lanes in kanban Board with drag-and-drop

Contacts					
Create Contact					
Name	Email	Status	Created Date	Total Value	
JD	josephjohn@gmail.com	Active	03/7/2025	\$7,000.00	
TS	technology@gmail.com	Active	03/7/2025	\$4,700.00	
BS	robinsontech@gmail.com	Active	03/7/2025	\$4,000.00	
EM	emilydell@gmail.com	Active	03/7/2025	\$6,500.00	
SC	robert@gmail.com	Inactive	03/7/2025	\$0.00	
MS	mrishade@gmail.com	Inactive	03/7/2025	\$0.00	

Fig 16 Leads can be added via funnel contact forms or manually

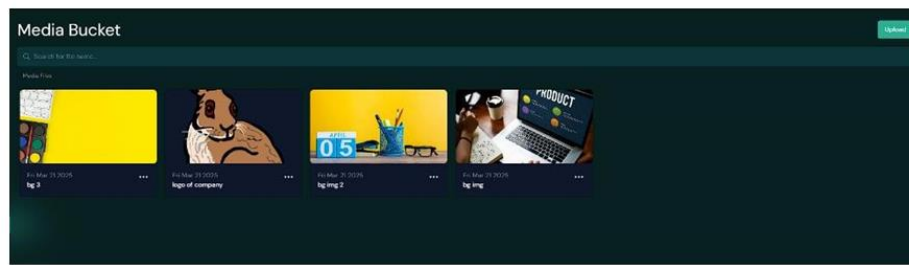


Fig 17 Media Bucket for storing images while creating funnels

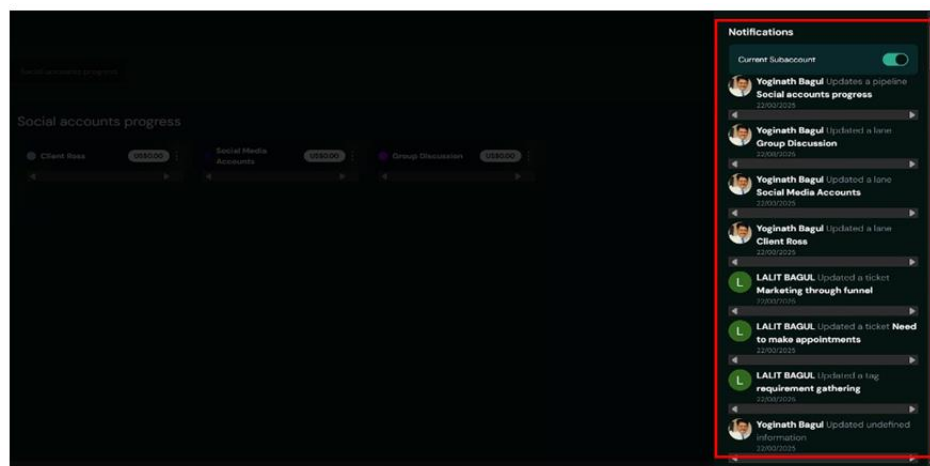


Fig. 18. Notification Tab

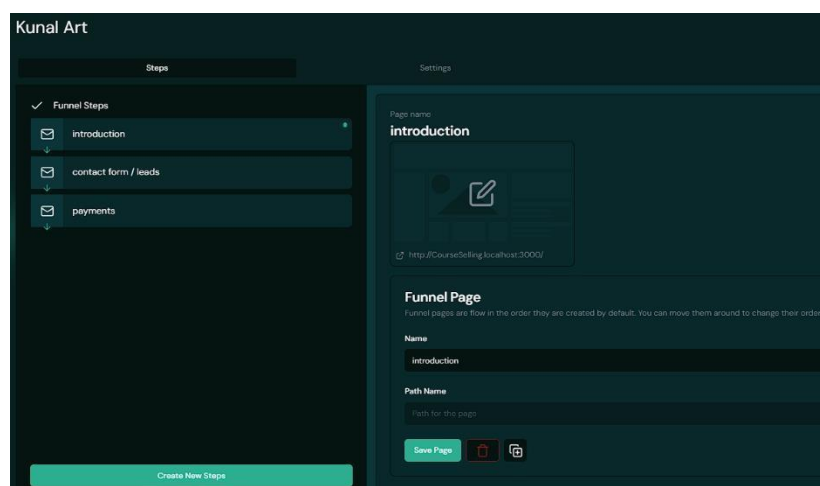


Fig. 19. Edit or reorder funnel pages easily.

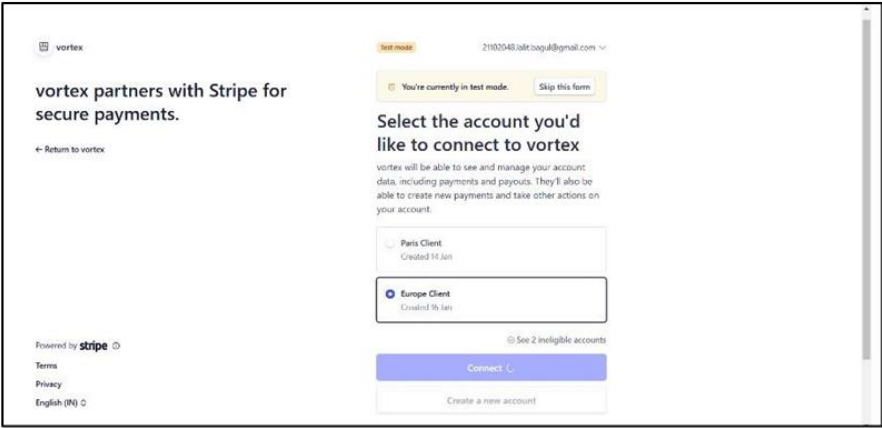


Fig. 20. Connect the client's Stripe account to link their products in the funnel.

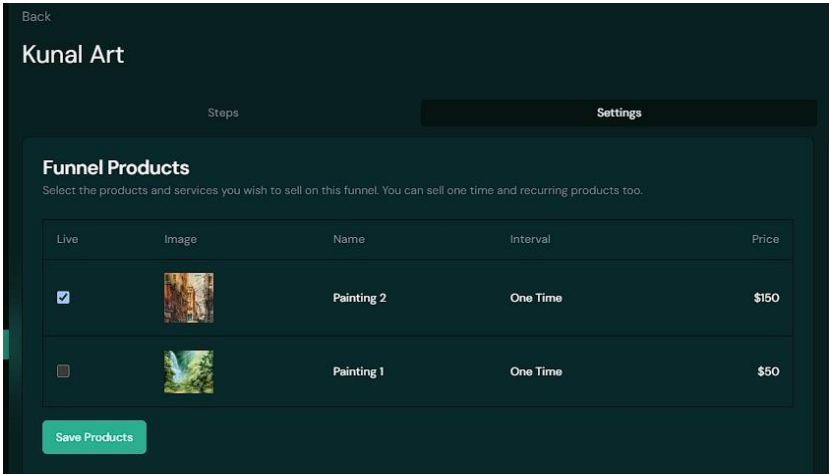


Fig. 21. Selected products are displayed here. Choose which ones to go live.

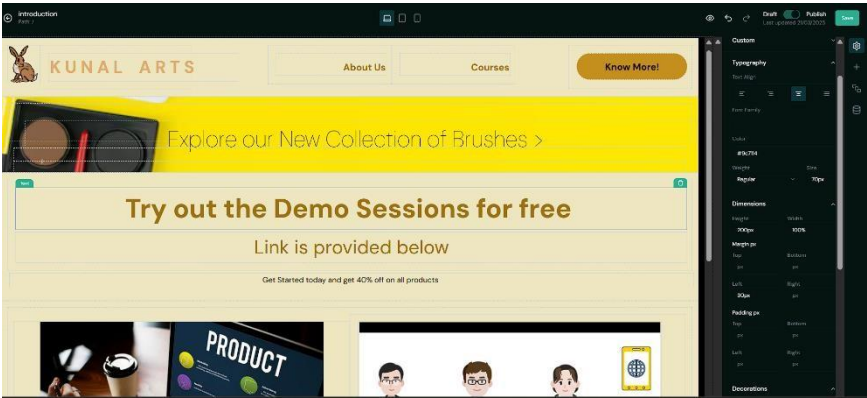


Fig. 22. Funnel Page 1

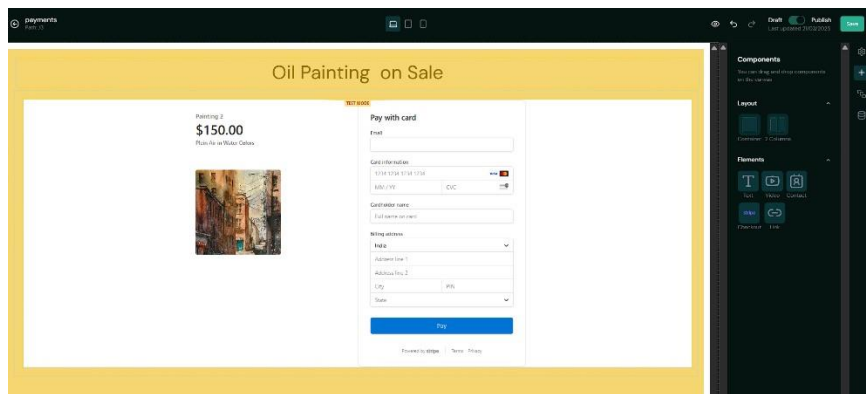


Fig. 23. Funnel Page 2

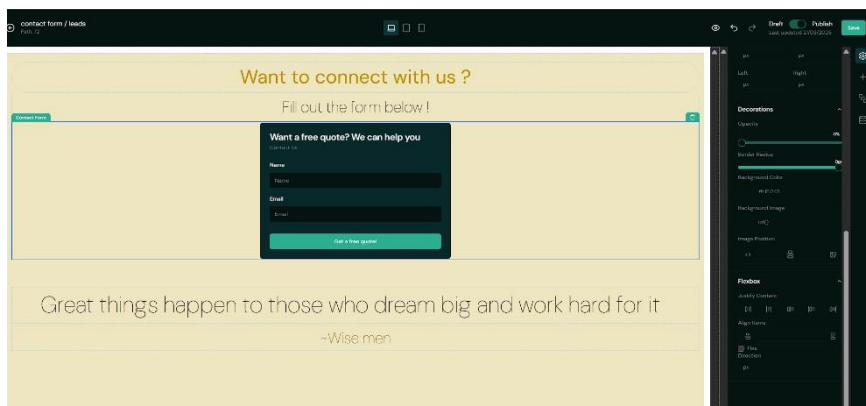


Fig. 24. Funnel Page 3

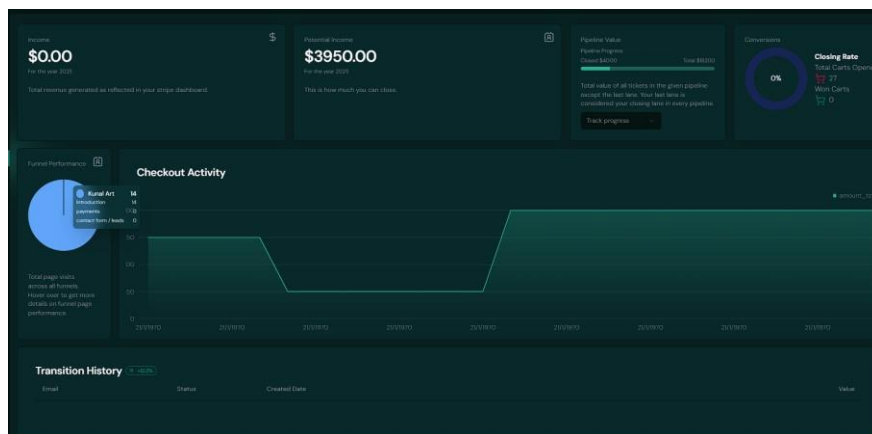


Fig. 25. Sub Account Dashboard

Table 1. Overview of Feature Comparison Across Project Management Platform

Features	Our SaaS	HubSpot	Click Funnels	Trello/Asana	Leadpages/Unbounce
Dashboard	✓ Yes	✓ Yes	✗ No	✗ No	✗ No
Kanban Board	✓ Yes	✓ Yes	✗ No	✓ Yes	✗ No
Funnel Builder	✓ Yes	✗ No	✓ Yes	✗ No	✓ Yes
Lead Generation & Conversion	✓ Yes	✗ No	✓ Yes	✗ No	✓ Yes
Role-Based Team Management	✓ Yes	✓ Yes	✗ No	✗ No	✗ No
Client Subaccount Management	✓ Yes	✗ No	✗ No	✗ No	✗ No

The Table 1 highlights the unique advantages of Our SaaS over competitors like HubSpot, ClickFunnels, Trello/Asana, and Leadpages/Unbounce. Unlike others, our platform integrates a comprehensive dashboard, Kanban board for pipeline management, and a funnel builder in one solution. This makes it ideal for agencies that need a unified system to manage projects, track workflows, and create high-converting websites—all without relying on multiple tools. Its seamless integration of these core functionalities ensures efficiency and scalability for businesses focused on both operations and marketing.

6. CONCLUSION

In conclusion, the rapid adoption of SaaS solutions has transformed the way agencies manage clients, projects, and finances. However, fragmented systems continue to create operational inefficiencies, leading to wasted time and revenue loss. Our Multi-Tenant SaaS platform addresses these challenges by seamlessly integrating financial automation, client collaboration, sales funnel management, and project execution into a unified ecosystem. With role-based access, Stripe automation, and real-time analytics, agencies can enhance efficiency, streamline operations, and scale seamlessly.

7. FUTURE SCOPE

The future scope of the platform includes integrating AI-driven analytics for predictive insights and personalized recommendations, as well as expanding global accessibility through multi-currency and multi-language support. Additionally, the development of a mobile application will enable users to stay updated on-the-go, while voice and chat assistants will provide intuitive navigation and task automation. Incorporating sustainability metrics will further align the platform with global environmental goals. These enhancements will ensure the platform remains scalable and adaptable to the evolving needs of diverse businesses.

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