

University of Kelaniya Sri Lanka

Group 08

Project Report

Digital Marketing Agency

Enterprise System

Submitted to:

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Declaration

We declare that this project report or part of it was not a copy of a document done by any organization, university any other institute or a previous student project group at university of Kelaniya and was not copied from the Internet or other sources.

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Abstract

In today's digital landscape, businesses face the ever-evolving challenge of establishing a robust online presence to promote their products or services. To address this, our enterprise software product emerges as a powerful ally for digital marketing agencies, offering a multifaceted toolkit encompassing online advertising, search engine optimization (SEO), social media marketing, content creation, email marketing, and a range of other cutting-edge digital strategies.

Our project's core objective is to deliver a transformative user experience by crafting a solid system structure that aligns seamlessly with the agency's goals. At the heart of this initiative is the ambition to execute a comprehensive digital marketing campaign that caters to the unique needs of each client. Our initial assessment underscores the imperative need for a strategic approach that spans key facets such as SEO, social media engagement, content generation, and email marketing.

With our enterprise software, agencies can efficiently harness the power of data-driven insights, enabling them to fine-tune their campaigns, target specific audiences, and achieve measurable results. Through intuitive user interfaces and data-driven decision-making tools, our solution empowers agencies to optimize their clients' digital presence, enhance brand visibility, and ultimately drive growth.

In a digital landscape marked by relentless competition and evolving consumer behaviors, our enterprise software product is the indispensable tool that equips digital marketing agencies with the means to excel. By providing a holistic and intuitive approach to digital marketing, we empower agencies to forge powerful connections between businesses and their target audiences, ultimately propelling them towards sustained success in the dynamic world of online promotion.

Acknowledgement

First and foremost, we would want to express our heartfelt gratitude to everyone who assisted and guided us in completing our project.

We would like to express our gratitude to Dr. B.M. Thosini Kumarika lecturer for her excellent supervision of our project. This work would not have been possible without your instruction, mentorship, and ongoing support. We also owe a debt of gratitude to for her unwavering support and for providing us with the opportunity to create a Enterprise Software Product for the "Digital Marketing Agency".

This work would not have been possible without your instruction, mentorship, and ongoing support.

We'd be remiss if we didn't thank our parents for their immense sacrifices as we studied for the exams and worked on this project, as well as for their encouragement and blessing.

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1. Introduction

In an age defined by the relentless evolution of technology, the digital landscape has emerged as the new frontier for businesses to conquer. The ubiquitous presence of the internet has transformed the way companies engage with their audiences, making a formidable online presence not just desirable but imperative. In response to this paradigm shift, our project endeavors to introduce a groundbreaking solution: a digital marketing agency enterprise software product designed to reshape the future of online promotion.

Our software product stands as a formidable ally, offering a comprehensive suite of tools and strategies aimed at navigating the intricate realms of digital marketing. From the precision of online advertising and the artistry of search engine optimization (SEO) to the dynamism of social media marketing, the allure of content creation, and the personal touch of email marketing, our solution is a versatile powerhouse primed to empower businesses in the digital sphere.

At its core, this project is driven by the vision of creating an impeccable user experience through the implementation of a streamlined system structure. Our paramount goal is to develop a software product capable of not only meeting but exceeding the unique needs of digital marketing agencies. As we embark on this endeavor, our initial assessment has underscored the crucial importance of a strategic approach that seamlessly integrates SEO, social media engagement, content generation, and email marketing to foster unparalleled success in the digital realm.

Within the pages of this report, we will delve into the inner workings of our enterprise software product, offering a comprehensive understanding of its architecture, functionalities, and the transformative potential it holds. By harmonizing intuitive design principles with data-driven insights, our software aspires to revolutionize the digital marketing landscape, allowing businesses to not only survive but thrive in an environment defined by constant change.

As we embark on this journey to redefine the very essence of digital marketing through our enterprise software, we invite you to join us in exploring the intricate details of our project. Together, we will unveil the extraordinary capabilities of this innovative solution and its promise to reshape the future of digital marketing, offering businesses the means to promote their products and services with unmatched efficacy in the dynamic digital space.

1.1 Problem Statement

1.1.1 Problems

- Integrating data from various digital marketing channels and platforms (online advertising, SEO, social media, email marketing, etc.) into a cohesive user experience can be highly complex. Ensuring that users can access and analyze their data seamlessly is a critical challenge.
- Presenting complex marketing data in a visually appealing and easily understandable manner is a key challenge. Creating data visualizations that empower users to make informed decisions while maintaining a user-friendly design can be difficult.
- Conducting thorough usability testing and effectively incorporating user feedback into the software's design and functionality is essential. However, managing feedback and implementing changes without disrupting the user experience can be a delicate balance.
- Ensuring a consistent and intuitive user experience across different devices and screen sizes, including desktops, tablets, and mobile phones, can be challenging. Users should have a uniform experience regardless of the device they use.
- Offering user-specific customizations and personalization options to adapt the software to each client's unique needs while maintaining a cohesive user experience can be intricate. Users should feel that the software caters to their specific requirements without overwhelming them with choices.

1.1.2 Solutions

Problem 1: Complex Data Integration

Solution: Develop a unified data management system that consolidates data from various digital marketing channels. Use standardized data formats and APIs to streamline data integration. Implement intelligent data mapping and transformation to ensure data consistency. Provide user-friendly dashboards for accessing and analyzing integrated data.

Problem 2: Effective Data Visualization

Solution: Invest in data visualization tools and libraries that support user-friendly charting and reporting. Use interactive visualizations to help users explore data intuitively. Offer customizable dashboards that allow users to create personalized views of their marketing data. Conduct user testing to refine data visualization design.

Problem 3: Usability Testing and Feedback Incorporation

Solution: Conduct regular usability testing with real users to identify pain points and areas for improvement. Establish a feedback loop with users and prioritize their suggestions for enhancing the user experience. Implement agile development methodologies that allow for rapid iteration and incorporation of user feedback.

Problem 4: Cross-Platform Consistency

Solution: Adopt a responsive design approach to ensure consistent user experiences across different devices and screen sizes. Implement device-agnostic design principles that adapt to the user's environment. Use testing frameworks to verify compatibility with various browsers and devices. Continuously monitor and adjust for cross-platform consistency.

Problem 5: Personalization and Customization

Solution: Develop a robust user profile system that allows clients to personalize their user experience. Provide customization options for dashboard layouts, data views, and reports. Offer user-friendly settings and preferences menus. Implement an intuitive onboarding process that helps users configure their personalized settings.

1.1.3 Benefits

Efficiency and Workflow Optimization

- **Streamlined Operations:** The software centralizes various digital marketing functions, allowing agencies to manage multiple campaigns and tasks from a single platform. This streamlines workflows and reduces the need for juggling between different tools.
- **Task Automation:** Automation features simplify routine and repetitive tasks, saving time and resources. This allows marketing teams to focus on strategic planning and creative aspects of campaigns.

Data-Driven Decision Making

- **In-Depth Analytics:** The software provides comprehensive analytics and reporting capabilities, enabling agencies to track and analyze campaign performance in real-time. Access to valuable data empowers marketers to make data-driven decisions and optimize strategies for better results.
- **Performance Insights:** Detailed metrics on key performance indicators (KPIs) help agencies identify trends, strengths, and areas for improvement, leading to more effective campaigns.

Enhanced Collaboration and Client Communication

- **Collaboration Tools:** The software fosters collaboration within agency teams and simplifies communication between clients and agency stakeholders. Shared dashboards, calendars, and messaging features improve teamwork.
- **Client Transparency:** Clients gain transparency into their campaigns through user-friendly dashboards and reporting. They can easily track progress, review results, and provide feedback, leading to stronger client-agency relationships.

Scalability and Adaptability

- **Scalability:** As the agency grows and takes on more clients, the software can scale to accommodate increased workloads, data volumes, and user loads without compromising performance.
- **Adaptability:** The system's flexibility allows agencies to adapt to evolving client needs, industry trends, and digital marketing strategies. Customization options enable tailoring to specific client requirements.

User-Focused Design and Satisfaction

- **User-Centric Design:** With a primary focus on user experience, the software offers an intuitive and visually appealing interface. User-friendly navigation and design elements ensure that both agency teams and clients can easily use the platform.
- **Client Satisfaction:** A positive user experience enhances client satisfaction. Clients can access campaign data, reports, and analytics effortlessly, leading to increased client retention and referrals.

1.2 Project Scope

The project scope involves developing a digital marketing agency enterprise software system with a primary focus on user experience. This system will encompass online advertising, SEO, social media marketing, content creation, email marketing, and various digital marketing strategies. Its purpose is to assist businesses in promoting their products or services effectively in the digital space. The scope includes creating a basic system structure that integrates these services into a cohesive platform, emphasizing user-friendly design principles and intuitive interfaces to enhance usability and overall user satisfaction.

This Enterprise Software product was developed according to main six web pages,

- Home page
- Service page
- Register page
- Login page
- Dashboard page
- Contact page

Home page

The Home page of our digital marketing agency enterprise software system is meticulously crafted with a primary focus on delivering an exceptional user experience. A clean and intuitive design welcomes users with a visually appealing layout that offers clarity and ease of navigation. Clear and concise headings and engaging visuals immediately convey the range of services we provide, including online advertising, SEO, social media marketing, content creation, and email marketing. Prominent call-to-action buttons invite users to explore further or get in touch with our agency. Realizing the importance of user trust, we feature brief client testimonials that highlight our success stories. Accessibility and responsiveness are at the core of our design, ensuring that all users, regardless of their devices or abilities, can seamlessly access and engage with the content. Our Home page serves as the gateway to a user-friendly digital marketing experience, setting the tone for the comprehensive support and expertise we offer businesses in the digital space.

Service page

Our Service page, meticulously designed with a strong focus on user experience, serves as the cornerstone of our digital marketing agency enterprise software system. Here, users will discover a wealth of information about the comprehensive services we offer. Each service, from online advertising to content creation, is presented with user-friendly descriptions and engaging visuals. Intuitive navigation ensures that users can easily explore and understand

the benefits of each service. Pricing details or request options are thoughtfully included, allowing users to access essential information conveniently. We supplement this with real-world case studies and success stories to demonstrate the impact of our services. The Service page reflects our commitment to transparency and usability, empowering businesses to make informed decisions about their digital marketing strategies with confidence.

Register page

Our Register page is a key entry point into our digital marketing agency enterprise software system, and it's meticulously designed with a user-centric approach to deliver a seamless user experience. We understand the importance of a frictionless registration process, and as such, we've created a user-friendly form that collects essential information, including name, email, and password. We prioritize clarity and simplicity, ensuring that users can complete the registration process quickly and without confusion. To safeguard user data and privacy, we provide access to our terms and conditions and privacy policy for review and acceptance. The Register page embodies our commitment to making it as easy as possible for users to join our platform and access the array of digital marketing services we offer, setting the stage for a productive and user-focused journey.

Login page

Our Login page is thoughtfully designed with a user-centric approach, prioritizing a seamless and secure user experience. We understand the significance of quick and hassle-free access to our digital marketing agency enterprise software system. To facilitate this, we've created a straightforward login form that requests only essential information: a user's email and password. We also offer a "Forgot Password" link, ensuring that users can easily recover their accounts if needed. For new users, we provide a direct link to our registration page. The Login page emphasizes user-friendly design, clarity, and accessibility to ensure that users can swiftly access their accounts and harness the power of our comprehensive digital marketing services. We're dedicated to delivering an exceptional user experience from the very first interaction, and our Login page reflects this commitment.

Dashboard page

Our Dashboard page is at the heart of our digital marketing agency enterprise software system, embodying our commitment to an exceptional user experience. Designed with user-centric principles, it offers an intuitive and visually appealing hub where users can manage and monitor their digital marketing campaigns effortlessly. Here, users can access their

profiles, customize settings, and explore an overview of our suite of digital marketing services, including online advertising, SEO, social media marketing, content creation, and email marketing. Real-time analytics and reports provide valuable insights into campaign performance, empowering users to make data-driven decisions. Additionally, our Dashboard page offers convenient campaign management tools, communication features for collaboration, and access to comprehensive support resources. We prioritize accessibility and responsiveness to ensure that users can access their data and manage their campaigns seamlessly across various devices. Our Dashboard page is a testament to our commitment to providing businesses with an effective and user-friendly platform for digital marketing success.

Contact page

Our Contact page is designed with a user-centric approach, prioritizing accessibility and ease of communication. We understand the importance of providing a seamless way for users to get in touch with our digital marketing agency. On this page, users will find a user-friendly contact form where they can submit inquiries, support requests, or feedback easily. We also provide clear and concise contact information, including phone numbers, email addresses, and our physical location, to cater to different user preferences for communication. For users who prefer a more visual approach, we include an interactive location map to help them find our office. We also provide direct links to our social media profiles for additional points of contact. Our Contact page exemplifies our commitment to delivering a responsive and user-friendly experience, ensuring that users can reach out to us effortlessly for any assistance or inquiries they may have.

1.3 Project Report Structure

Introduction

In the introduction, is going to concentrates about the future issues and the solutions, that given by the project.

Methodology

This methodology is consisting of two main sub-sections namely,

- I. Requirement Analysis
- II. Diagram designs

Requirement analysis is a critical phase in developing a digital marketing agency enterprise software system. During this process, we thoroughly examine and document the needs, goals, and expectations of all stakeholders, including the agency's teams and its clients. Through stakeholder interviews, surveys, and workshops, we gain insights into the specific functionalities and features required. We prioritize these requirements based on their importance and impact on the software's success, ensuring that we address the most critical needs first. This phase also involves distinguishing between functional requirements (what the system should do) and non-functional requirements (how the system should perform). By conducting comprehensive requirement analysis, we lay the foundation for a software system that effectively supports online advertising, SEO, social media marketing, content creation, email marketing, and other digital strategies.

Diagram design is an integral part of visualizing the architecture and functionality of our digital marketing agency enterprise software system. It involves creating various types of diagrams to represent different aspects of the system. For example, we use system architecture diagrams to illustrate how different digital marketing services and components are integrated. Flowcharts help us map out the step-by-step processes for tasks like campaign creation and management. Use case diagrams provide a clear view of user interactions and roles within the system. Data flow diagrams enable us to understand how data moves through the software. Additionally, UI wireframes allow us to visualize the user interface design. Diagram design enhances our ability to communicate complex concepts, ensuring that all stakeholders have a clear understanding of the software's structure and functionality, ultimately leading to a more successful digital marketing system.

Teamwork

founded on trust between each team member results in a healthy work environment and interpersonal relationships.

Conclusion

In this section contains all the conclusions and the limitations of the application.

2. Methodology

2.1 Requirements and Analysis,

Our Enterprise Software System will comprise the following key features:

1) **Client Management:**

- Client onboarding and management
- Detailed client profiles and project history tracking

2) **Project Management:**

- Project creation, tracking, and assignment
- Task management and allocation
- Real-time project status updates

3) **Campaign Management:**

- Campaign planning and scheduling
- Automated ad placement and management
- SEO optimization tools
- Social media content scheduling
- Content creation and publishing

4) **Analytics and Reporting:**

- Real-time campaign performance tracking
- Customizable client reports
- Conversion tracking and goal measurement

5) **Resource Allocation:**

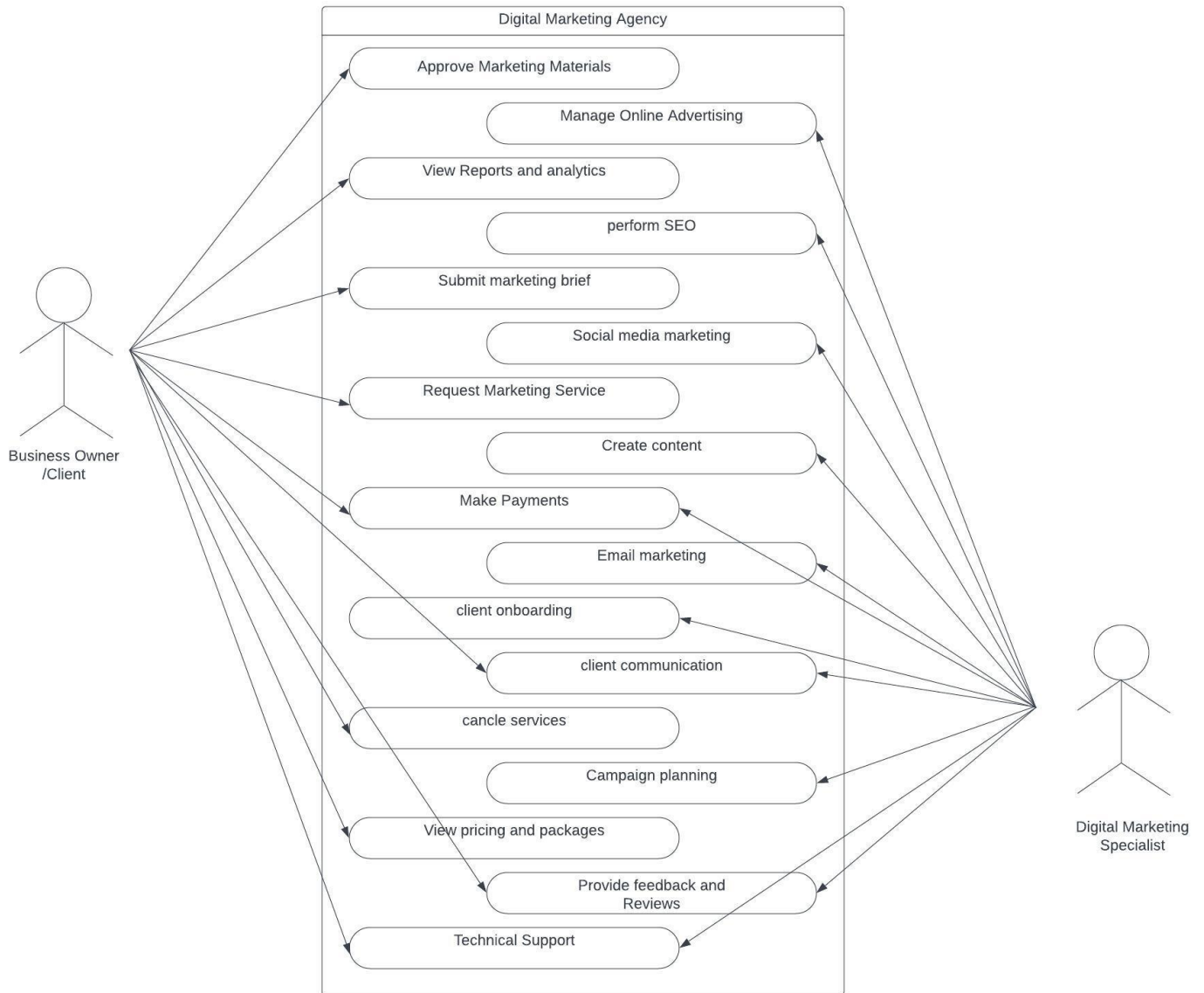
- Team scheduling and workload management.
- Resource optimization and allocation
- Budget tracking and expense management

6) **Communication and Collaboration:**

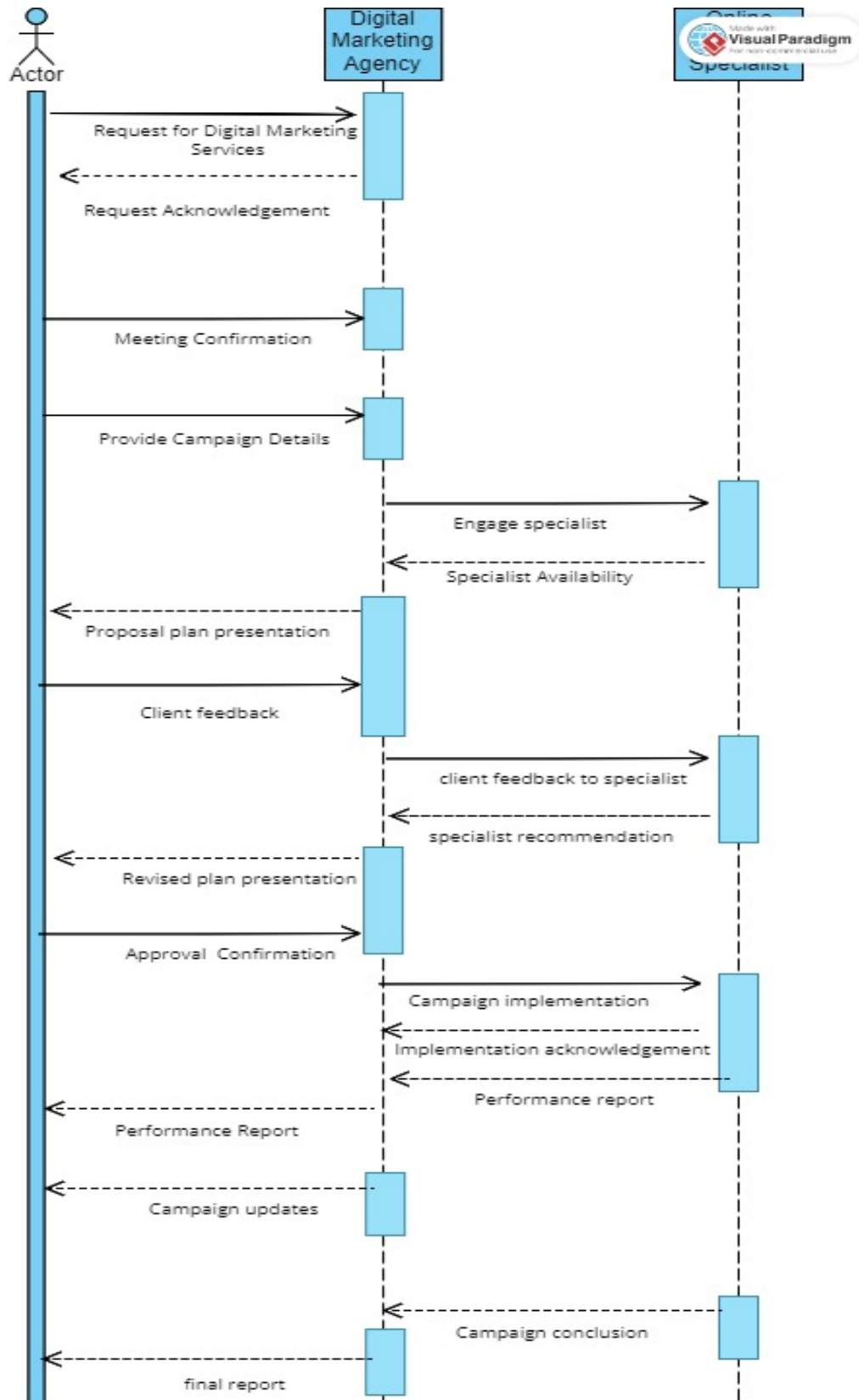
- Internal messaging system
- Client communication portal
- File sharing and document management

2.2 Diagram designs

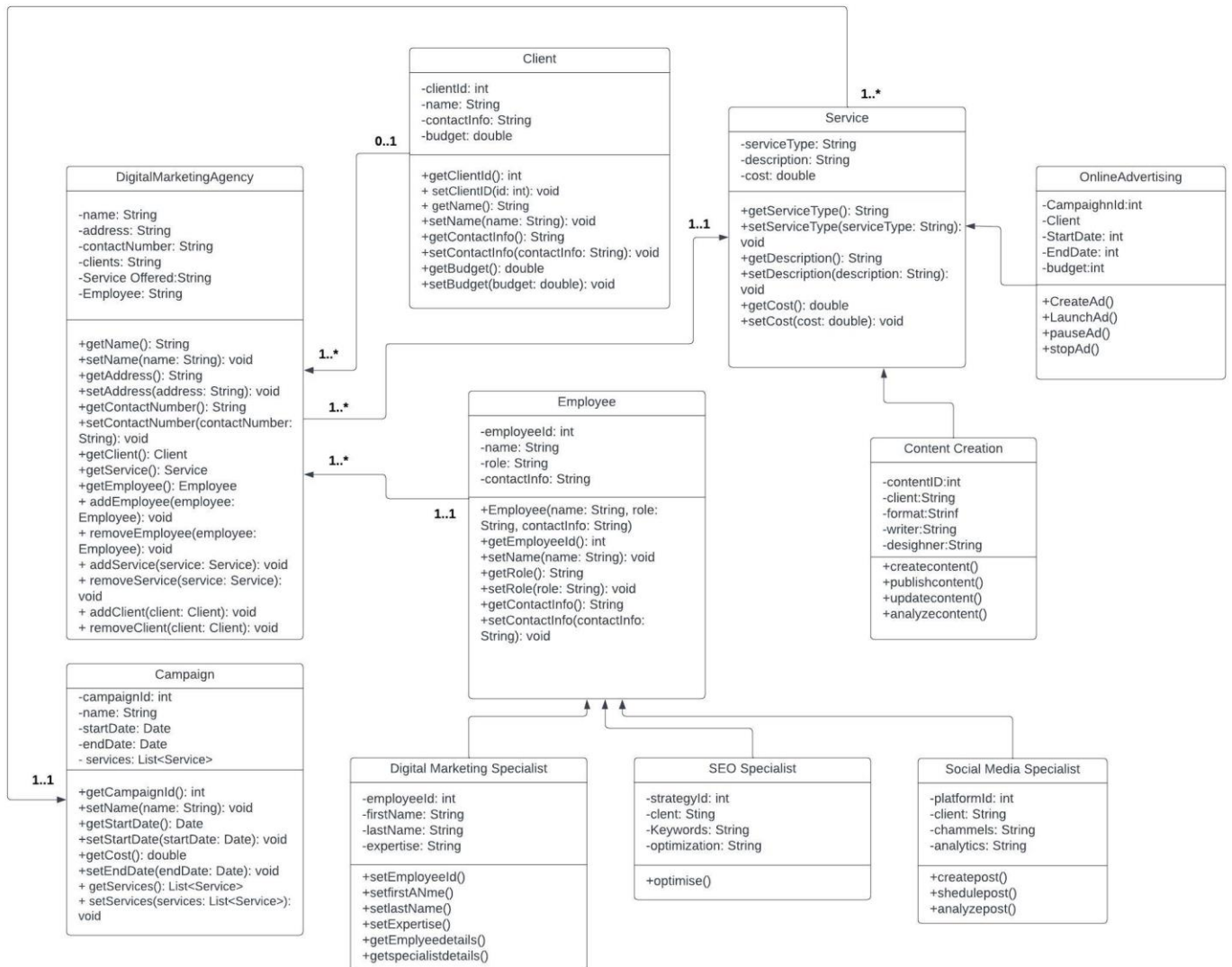
Use Case Diagram



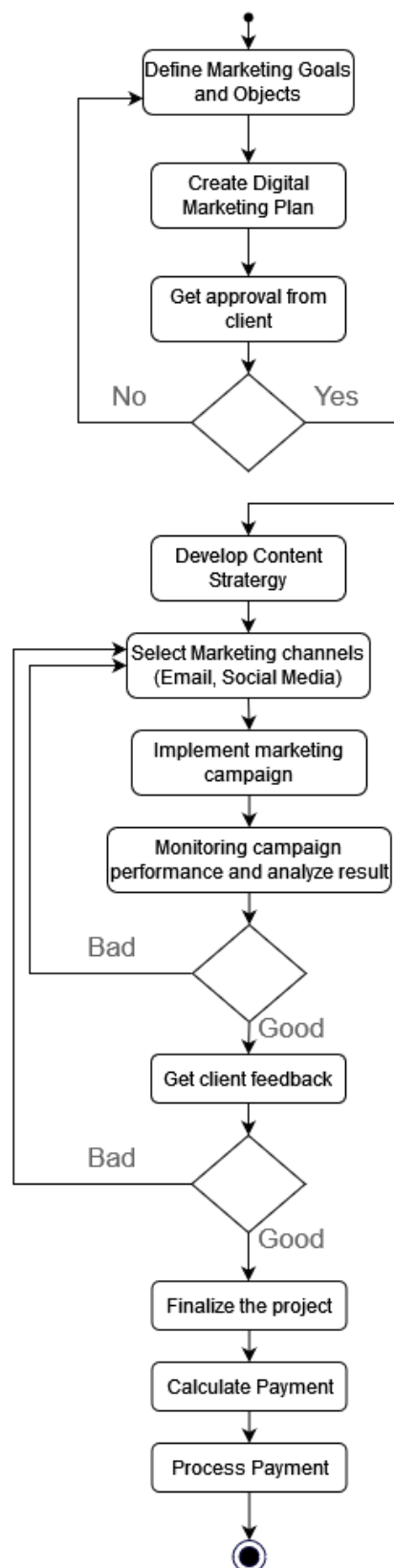
Sequence Diagram



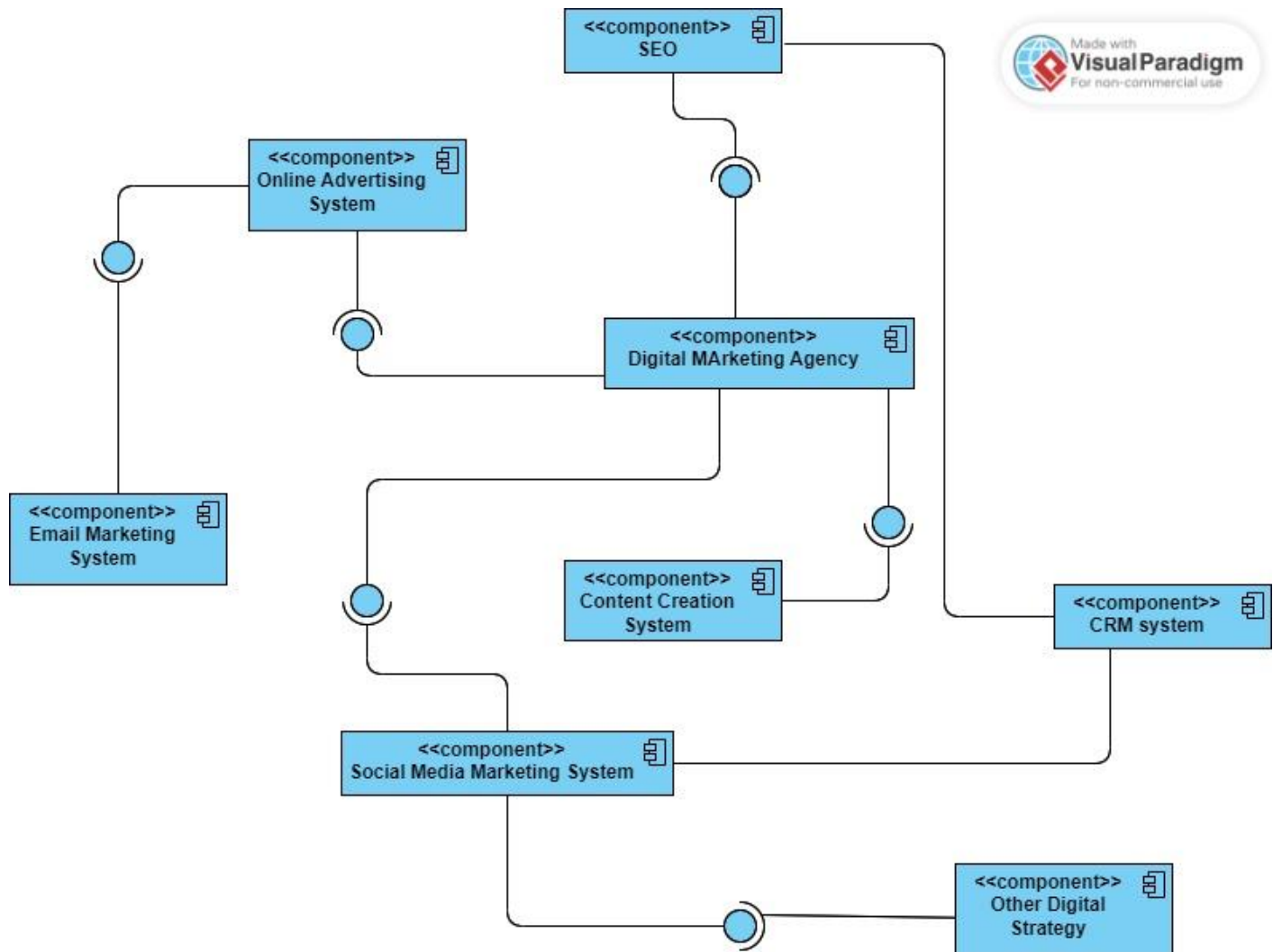
Class Diagram



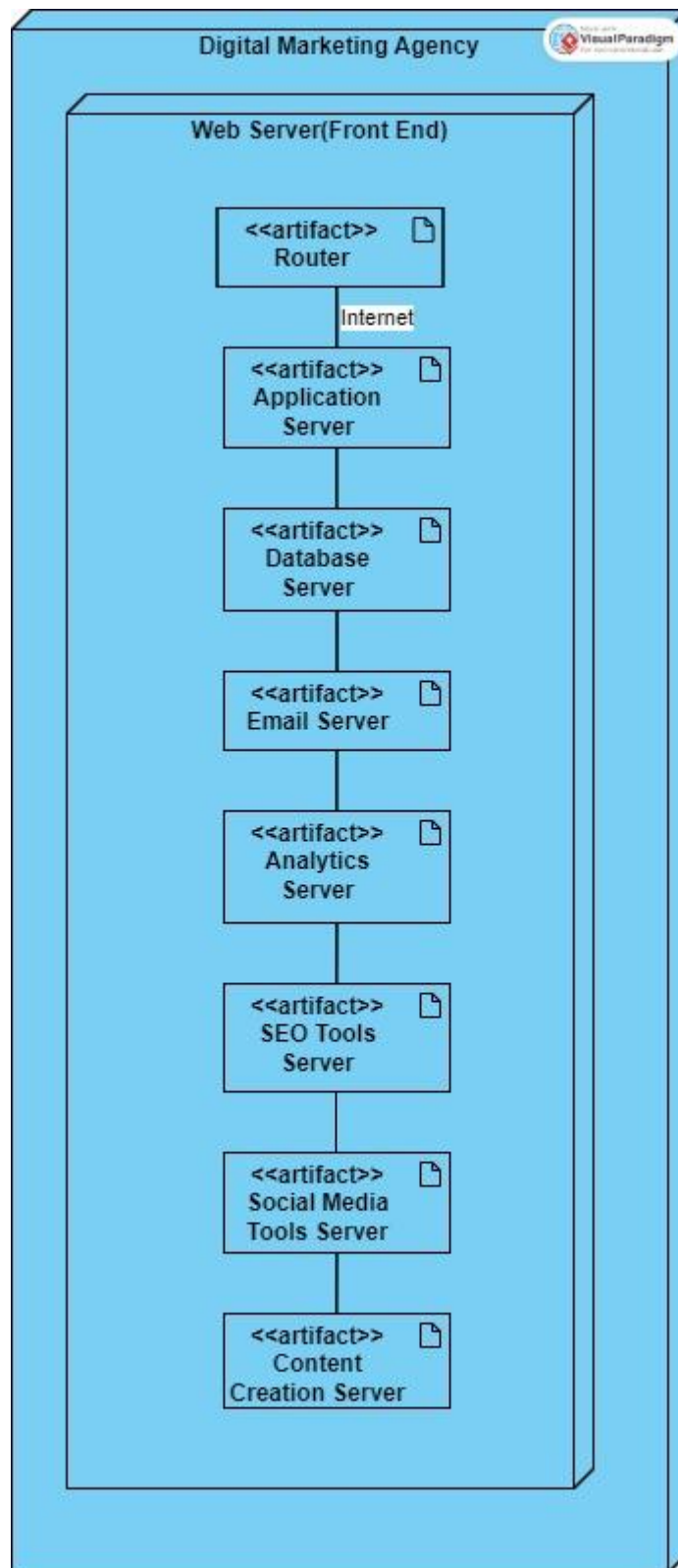
Activity Diagram



Component Diagram



Deployment Diagram



3. Teamwork

Student No	Name	Mail	Work allocation
PS/2019/193	M.A.S.D. JAYASUNDARA	jayasun-ps19193@stu.kln.ac.lk	Requirement gathering
PS/2019/066	U.K.P.I. UDUGAMA	udugama-ps19066@stu.kln.ac.lk	Conceptual Design planning
PS/2019/244	J.M.N.C. JAYAMANNE	jayaman-ps19244@stu.kln.ac.lk	UML Diagram planning
PS/2019/179	A.N.T. SAMINDARA	saminda-ps19179@stu.kln.ac.lk	Documentation
PS/2019/059	A.T.D. SOMAWEERA	somawee-ps19059@stu.kln.ac.lk	Database Design
PS/2019/054	H.K.J. PUNSADINIE	punsadi-ps19054@stu.kln.ac.lk	Project role assignment
PS/2019/126	R.P.D. MIGARA	migarar-ps19126@stu.kln.ac.lk	Define Functional and Non Functional Requirements
PS/2019/127	Y.M.S.N.R. YAPA	yapayms-ps19127@stu.kln.ac.lk	Define project development tools

4. Conclusion

As a team, we are very pleased to have successfully completed this project. Being able to use our maximum knowledge and skills to satisfy our client is the highest honor we can receive as students. Having to pursue such a professional level project while in the third year of education is a powerful factor in producing successful professionals in the future. Let's hope we made the most of that great opportunity. There are two main objectives that we hoped for through this project. The main purpose is to gain professional experience while studying for a degree.

During this time, we also had the opportunity to identify our weaknesses and shortcomings. For example, in some cases there was a lack of knowledge about programming languages. However, our client did not make any problem and he seemed very happy with the project we completed. We look forward to working with him on a professional level to further develop this project. We also look forward to launching more successful projects in the future based on this experience.