



Daffodil
International
University

Title of the project

“General Admin: Your All-in-One Management Dashboard for skill and jobs management”

Course: **Project/Internship (Phase II)**

Course Code: **CIS499**

Department of Computing and Information System (CIS)

Submitted By:

Md. Masum Rana

ID: 201-16-516

Supervised By:

Mr. Israfil

Lecturer of department CIS

Submission Date: September 29, 2024

APPROVAL

This Project titled "General Admin: Your All-in-One Management Dashboard for skill and jobs management.", Submitted by Md: Masum Rana ID No: 201-16-516 to the Department of Computing & Information System, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computing & Information System and approved as to its style and contents. The presentation has been held on 29-09-2024.

BOARD OF EXAMINERS

 29/09/24

Md Sarwar Hossain Mollah
Associate Professor and Head
Department of Computing & Information System
Faculty of Science & Information Technology
Daffodil International University

Chairman

 29.09.24

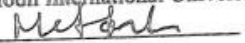
Md. Nasimul Kader
Assistant Professor
Department of Computing & Information System
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

 29.09.2024

Md. Mehedi Hassan
Lecturer
Department of Computing & Information System
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



Md. Miftah Uddin
Head of SBU, Brain Station 23

External Examiner

Declaration

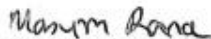
I hereby declare that; this project has been done by me under supervision of Mr. Israfil, Lecturer Department of Computing and Information System (CIS) of Daffodil International University. I am also declaring that this project or any part of there has never been submitted anywhere else for the award of any educational degree like, B.Sc., M.Sc., Diploma or other qualifications.

Supervised By


20.9.24

Mr. Israfil
Lecturer
Department of Computing and Information System
Daffodil International University

Submitted By



Md. Masum Rana
ID: 201-16-516
Department of Computing and Information System
Daffodil International University

Acknowledgment

My heart swells with gratitude to Allah Ta'ala, the Omnipotent, for granting me this precious gift of growth and self-discovery. I could not have finished this assignment or any related responsibilities without His direction and assistance..

I thank Skills Job an immeasurable debt of appreciation for allowing me permitting me to work as a trainee intern; this has been an incredible educational opportunity. I have learned plenty throughout this internship program, particularly about modern technology and business procedures.

I have an obligation of gratitude to my academic supervisor, Mr. Israfil, as well as my project manager and senior development team, who operated as my intern instructors. Their constant advice, encouragement, and support have been crucial to my career growth. They have always been there to provide me solid advice, support me in making wise choices, and motivate me to overcome difficulties.

I always been greatfull to there genrosity,support and faith on my abiliy. Their guidance has not only assisted me in completing challenging assignments, but it has also taught me how to perform well under pressure and manage significant projects in the future.

Abstract

General Admin: Your All-in-One Management Dashboard" is an innovative project designed to consolidate various administrative tasks into a single, cohesive platform. The project seeks to enhance efficiency and productivity by providing a comprehensive dashboard that integrates user management, content management, product management, and analytical reporting. Traditionally, managing these activities separately was labor-intensive and prone to errors. However, with General Admin, businesses can streamline operations and gain real-time insights, offering unprecedented flexibility and control. This project develops a website that features a user friendly interface, Complex data analytics, and seamless integration capabilities to deliver a unique and efficient administrative experience. By incorporating real-time data analysis and customizable modules, General Admin allows users to make informed decisions quickly and accurately. The project makes use of solid research and analysis to guarantee its features are practical and effective for everyday administrative needs.

Table of Contents

Acknowledgement	iv
Abstract	v
1. Chapter 1: Introduction	1
1.1 Introduction	1
1.2 Purpose of the Project	2
2. Chapter 2: Initial Study	3
2.1 Project Proposal	3
2.2 Project Scope	3
2.3 Background of the Project	4
2.4 Objectives	5
3. Chapter 3: Literature Review	6
3.1 Background on Administration Tools	6
3.2 Limitations of Existing Solutions	7
3.3 Recommended Approach	7
3.3.1 User Management Systems	7
3.3.2 Content Management Systems	7
3.3.3 Product Management Systems	8
4. Chapter 4: Methodology	9
4.1 Methodological Approaches	9
4.1.1 Agile Model	10
4.1.2 Scrum Model	10
4.1.3 Waterfall Model	12
4.2 Selection Rationale	13
4.3 Methodology Sections	13
4.4 Implementation Plan	14

5. Chapter 5: Project Plan	15
5.1 Assist Breakdown Structure	15
5.2 Project View	16
5.3 Timeline and Milestones	17
5.4 Gantt Chart	18
6. Chapter 6: Feasibility Study	19
6.1 Types of Feasibility Study	19
6.2 Technical Feasibility	19
6.3 Economic Feasibility	20
6.4 Operational Feasibility	20
6.5 Legal and Compliance Feasibility	21
7. Chapter 7: Requirements Analysis	22
7.1 Problem Area Identification	22
7.2 Interviews and Surveys	23
7.3 Requirement Specifications	23
7.4 Functional Requirements	23
7.5 Non Functional Requirements	23
7.6 Technologies to be Implemented	24
8. Chapter 8: System Design and Architecture	26
8.1 System Design Overview	26
8.2 Module and Component Design	26
8.3 Database Design and Schema	28
8.4 Low-Fidelity Prototypes	30
8.5 High-Fidelity Prototypes	33
9. Chapter 9: Implementation	36
9.1 Folder Structure	36
9.2 Core Module Output Sample	38
9.3 Integration of Third Party Packages	39
9.4 Development Prioritization	40
10. Chapter 10: Testing	41
10.1 Test Plan and Strategy	42
10.2 Unit Testing	43
10.3 Integration Testing	45
10.4 System Testing	46
10.5 User Acceptance Testing	47
11. Chapter 11: Deployment	49
11.1 Deployment Plan	49
11.2 Training	50
11.3 Scaling and Load Balancing	51

12. Chapter 12: Evaluation and Critical Appraisal	53
12.1 Evaluation of Objectives Met	53
12.2 Areas of Improvement	54
12.3 Features Not Fully Implemented	56
13. Chapter 13: Lessons Learned	58
13.1 Pre-Project Review	58
13.2 Challenges Faced and Solutions Implemented	59
13.3 Overall Experience	60
14. Chapter 14: Conclusion	63
14.1 Summary of the Project	63
14.2 Future Work and Goals	64
14.3 Documentation Overview	65
14.4 Personal Experience	66
Reference Works Cited	67
Plagiarism Report	70

List of Figures:

Figure 4-1: Agile	11
Figure 4-2: Scrum.....	12
Figure 4-3: Waterfall Model	13
Figure 5-1: Work Breakdown Structure	16
Figure 5-2: Resource Allocation	17
Figure 5-3: Timeline and Milestones	18
Figure 5-4: Gantt Chart	19
Figure 7-1: Technology Architecture Overview	26
Figure 8-1: System Design Overview	27
Figure 8-2: Component Design Diagram	28
Figure 8-3: Database Schema Design	29
Figure 8-4: Low-Fidelity Prototype (Dashboard)	30
Figure 8-5: High-Fidelity Prototype (Dashboard)	31
Figure 9-1: Class Diagram	33
Figure 9-2: Sequence Diagram	33
Figure 9-3: Low-Fidelity Prototype (Home Page)	34
Figure 9-4: Low-Fidelity Prototype (User Management).....	34
Figure 9-5: Low-Fidelity Prototype (Content Management)	35
Figure 9-6: Low-Fidelity Prototype (Login Form)	35

Figure 9-7: Low-Fidelity Prototype (Product Management)	36
Figure 9-8: High-Fidelity Prototype (Home Page)	36
Figure 9-9: High-Fidelity Prototype (User Management)	37
Figure 9-10: High-Fidelity Prototype (Content Management)	37
Figure 9-11: High-Fidelity Prototype (Login Form)	38
Figure 9-12: High-Fidelity Prototype (Product Management)	38
Figure 10-1: Root Folder Structure	39
Figure 10-2: Client-Side Folder Structure	39
Figure 10-3: Admin-Side Folder Structure	40
Figure 10-4: Actual File Base Sample	40
Figure 10-5: Output of Setting Module	41
Figure 10-6: Output of Home Page	41
Figure 10-11: Output of Order Processing Module	44
Figure 10-12: Output of Admin Login Module	44
Figure 10-13: Output of management Module	45

List of Tables:

Table 7.4-1: Functional Requirements	24
Table 7.5-1: Non-Functional Requirements	25
Table 8.1-1: System Design Modules	28
Table 10.1-1: Folder Structure Breakdown	39
Table 10.5-1: Output Sample of Modules	45
Table 11.2.1-1: Unit Test 1	49
Table 11.2.2-1: Unit Test 2	49
Table 11.2.3-1: Unit Test 3	50
Table 11.2.4-1: Unit Test 4	50
Table 11.3.1-1: Case Test 1	51
Table 11.3.2-1: Case Test 2	52
Table 11.3.3-1: Case Test 3	52
Table 11.4-1: Integration Case 1	53

Chapter 1: Introduction

1.1 Introduction

The success of your business depends on how well i manage multiple administrative activities and follow-ups as the world becomes a more digitalized place. This highlights how important it is to have an entire solution that can make all of these difficult chores easier. "General Admin: Your all in one Management Dashboard system was developed in response to the increasing need for a platform that could combine product administration, content management, user management, and reporting analytics.

The switch to lightweight code has several advantages: IT can now manage these tasks by grouping them together instead of distributing them alone, which is a highly efficient alternative. Every company is constantly looking for methods to reduce overhead, accelerate decision-making, and optimize processes. By combining numerous elements into a single, user-friendly dashboard, General Admin aims to provide a more simplified experience that will enable you to handle corporate operations like never before.

This project not only includes a lot of administrative tasks, but it also makes use of modern technologies that allow for real-time data analysis and customized modules that offer uncommon control and flexibility. Our components are reliable, efficient, and suitable for daily administration because we just utilize recognized studies and practical insights.

1.2 Purpose of the Project

To achieve this, the "General Admin: Your All-in-One Management Dashboard" project aims to bring together multiple tasks into a single one. The campaign aims to:

- Reduce the time-consuming task of managing users, content, and products in several systems to increase operational efficiency.
- With the help of advanced data analysis that provides you with precise and timely information, you can make fast decisions.
- Boost adaptability and personalization with a user-friendly interface and modular architecture that let companies customize a dashboard to their specific needs.
- By using organized data management, you may avoid storage gaps and duplication and enjoy increased accuracy, consistency, and lower risks.
- Enable easy integration of the systems with both third-party and current applications, guaranteeing ongoing business operations.
- Provide systems with flexibility that can expand to suit companies of different sizes.

The overall goal of the "General Admin: Your All-in-One Management Dashboard" project is to provide companies with a complete platform that boosts efficiency, optimizes workflows, and eventually promotes expansion and success.

Chapter 2: Initial Study

2.1 Project Proposal

The Approach "General Admin: Your All in one Management Dashboard for Designed various type of administrative tasks for A dashboard that ideally has the ability to handle user accounts, content, products, and analytical reports united!

The central argument consists of:

- Creating a user-friendly interface for smooth administration
- using modern data analytics and complex reporting technologies to provide real-time insights
- customized modules for a range of business types.
- Verifying the system's scalability and its level of compatibility with existing third-party apps.

The development of this kind of platform will assist in meeting the increasing demand for complete and effective administrative solutions, which will save time, cut costs, and enhance the way companies make decisions.

2.2 Project Scope

The following are important areas of the "General Admin: Your All-in-One Management Dashboard" project:

- User Management: Easily optimise to see user activity, roles, and permissions.
- Content Management: Content management system tools for easy creation, editing, organization, and publication.
- Product management includes the capacity to track sales, inventories, and product data.
- analytical and Reporting: Combine reporting and analytical skills to extract useful insights from the data.
- customizable: The dashboard has several settings that let customers change it to suit their own business needs.
- Integration: API-based compatibility with external software and other systems.
- Scalability: The system's ability to grow with the business is another factor to consider in its scalability.

By focusing on these areas, the project will be able to produce a feature-rich management solution that is suitable for businesses.

2.3 Background of the Project

Within the larger category of administrative duties, the complex and divided nature of operations across multiple departments frequently leads to inefficiencies, increased expenses, and operational issues. For user management, content management, product management, and data analytics, the majority of businesses must collaborate with a variety of software solutions. This could result in distinct sets of datasources, or data silos, which do not share information or values and remain separate from other parts of the stack.

The goal of eliminating these inefficiencies by integrating every administrative task under one roof served as the inspiration for "General Admin: Your All-in-One Management Dashboard." By utilizing cutting-edge technologies, such as data analytics and UI design, the project seeks to provide businesses with a longer

The majority of earned solutions are not integrated or do not have real-time data analysis, which makes them less capable of helping businesses respond quickly to changing market conditions and make decisions. This project seeks to close these gaps by providing a more compact, open, and secure alternative for the situation mentioned above.

2.4 Objectives

Request for: The Main Objectives of the "General Admin – Management of Your All-In-One Dashboard" Project, including but not limited to

Boost Productivity: Complete more complex administrative duties with concentration

Promote Intelligent Decision Making: Facilitate prompt, intelligence-driven decision-making by enabling real-time data analytics and reporting.

Boost modifications: Enable module customisation so that different business requirements can be met with different solutions.

To prevent errors and inconsistencies in data, pool resources and ensure data accuracy.

Integrate: To ensure that inventory and data mapping are in sync, provide a smooth link with a live third-party advertising or cloud system.

Scalability: make sure the system is built to expand along with your company.

UX: Design an intuitive user interface

Making "General Admin: Your All-in-One Management Dashboard" more of a business-critical tool and helping companies become more strategically agile and operationally efficient are the two main objectives of these steps.

These objectives are aimed at making "General Admin: Your All-in-One Management Dashboard" a pivotal tool for businesses, enabling them to achieve greater operational efficiency and strategic agility.

. Chapter 3: Literature Review

3.1

Talk about Three Administration Tools

Administrators need administrative tools in order to modify their operations for any given firm. Product management systems, which keep track of inventories, sales, and product listings; content management systems (CMS), which arrange and distribute various types of written content; and user management systems, which handle user roles and permissions.

These tasks were previously handled by different applications, each having unique capabilities and restrictions. While there are specialist tools available to tackle those duties, their functionality is significantly less than ideal due to their limited or narrow scope. Increased operating expenses, data silos, and inefficiencies are the results of this fragmentation.

Many studies and business reports highlight the need for an end-to-end integrated administration tool set that keeps adding new features to a single, shared platform. Through the use of rich data analytics, this integration helps businesses get insights while simultaneously increasing the efficiency of their business processes.

3.2

Although there are many of administrative tools available, the majority of current solutions are severely lacking in key areas.

- **Limited Integration:** Most tools are designed to address specific problems and are not designed to communicate with other systems. It results in inconsistent and duplicate information.
- Although these tools are rather strong, non-technical workers may find it challenging to navigate their more complex interfaces, which are designed with technical users in mind.
- **Lack of Scalability:** Performance suffers with an increase in the number of data consumers, and many solutions are unable to grow with the business.
- Data warehouses are the isolation of data in various systems or types that need to be combined but are still functioning as separate entities. This makes it difficult for managers or owners of businesses to obtain positions within their companies.
- **Limited Customizability:** Many people will find it outdated to utilize the current instruments because they cannot be sufficiently customized to incorporate a variety of different companies.

These listed limitations highlight the need for a more comprehensive, streamlined legislation that would simplify many administrative processes on one platform.

3.3 Suggested Method

A single dashboard—an integrated platform that combines user, content, and product management—has been suggested as a workaround for these shortcomings. This strategy has the advantage of combining easy connections with modern equipment, flexible configurability, and quick data analytics.

3.3.1 Systems for User Management

Basically, user management solutions are necessary for any administrative platform. Among the things they oversee are user registrations, role assignments, and permission configurations. The following qualities should be present in the user management system:

- User Interface: Its user-friendly interface makes managing accountability and assigning roles for users easy.
- Scalability: The ability to handle an increasing user base without experiencing performance problems.
- Security: Strict security protocols to protect user information and assist in meeting legal requirements.
- Integration: Ensuring proper integration with external systems to avoid separate databases and maintain flawless consistency throughout.

3.3.2 Systems for managing content

A content management system (CMS) allows the creation, editing, and publication of information within this context. Managing the content of your website should be done by a CMSighter on an integrated platform.

- Simple Interface: Tools for controlling content development that are easier to use.
- Customizable Templates: We have the ability to create and modify various content templates in accordance with your company's needs.
- Built-in content optimization tools for search engine optimization.
- Analytics & Reporting: Built-in analytics to track user interaction and content performance.

3.3.3 Systems for Product Management

On the other hand, for your product listings, inventory, and sales, you will require a system similar to any of these widely used ones: eBay Warehousing, Amazon PIM, or WalMart CRM. A Breeze-based product management system

Qualities of a Successful Product Management

- This would incorporate features like alerts for automated reordering and inventory tracking (including real-time tracking and updating).

- Sales insights: Detailed insights on sales performance and trends.
- Product Customization: Seller on-boarding tools to adjust the product listing and description in different ways to meet future market demands.
- Integration with Sales Channels: It works with many different sales channels, such as e-commerce sites and point-of-sale systems.

"General Admin: Your All-in-One Management Dashboard" aims to address the current state of administrative tools and develop into a complete solution that is both automated and easy to use for businesses. It does this by following the specified methodology.

Chapter 4: Methodology

Even if there are many techniques to solving our problem, it is important that we select the best methodology—or set of methods—for our project.

Multiple methods will be used, the two most famous being Agile and Waterfall. Agile is more flexible than the waterfall model, allowing for fewer versions and continuous feedback, which makes it ideal for projects that need to make small changes often. On the other hand, waterfall operates well with projects that include very clear criteria and requirements since it follows a linear series of stages, requiring completion of each before moving on to the next.

Agile was chosen for the dashboard project due of its emphasis on cycles and ability to adapt. This resulted from a number of project concerns, including the size that would be necessary to carry out and connect all administrative duties together, as well as a large number of requests from partners.

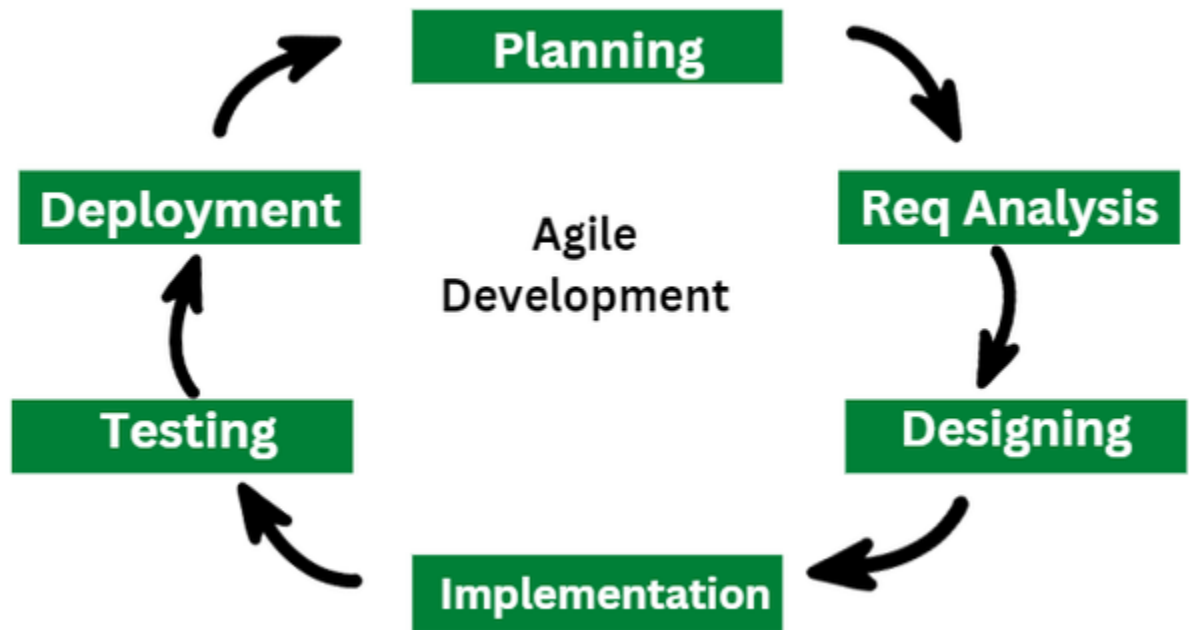
4.1 Methodological Approaches

For the "General Admin - All in One Management Dashboard" project to be created and executed successfully, an accurate methodological approach must be chosen. There are many methods to turn your project into a paper document, and each person would choose to apply those methods according to logic.

4.1.1 Agile Model

its a very well-liked, informal approach to software development that only focuses fast development over time. Among the features are some of the following: agile Model

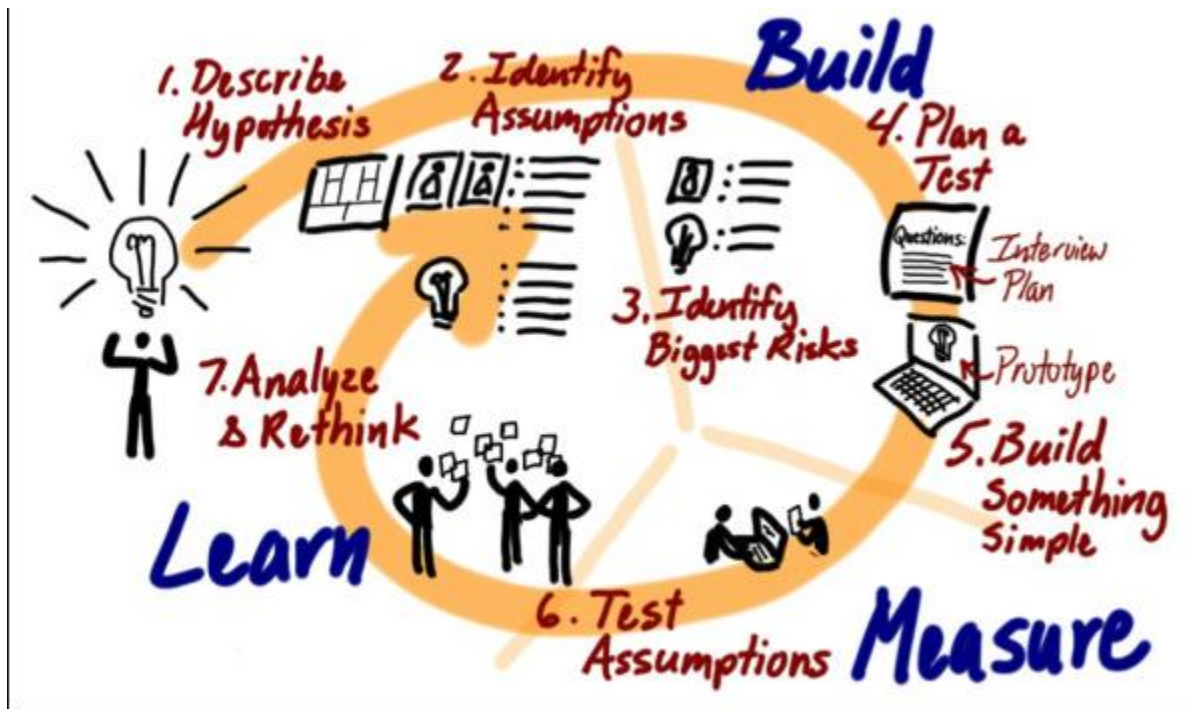
- Customer collaboration involves continuously revising requirements and getting input from relevant parties.
- a combination of it Development: Tasks are completed in shorter bursts known as iterations. A potentially shippable product increment must be produced within a sprint.
- Realistic: If modifications are needed for business reasons, agile permits them even at the very end of the development process.
- Continuous Delivery: Providing early iterations of the product for testing and feedback, as well as functional components frequently to provide quantifiable progress (few days or few weeks).



4.1.2 Scrum Model

One of the different kinds of agile is scrum, which involves two- to four-week sprints. It depends on accountability, teamwork, and making small but steady progress toward a goal. Key components of the Scrum Model

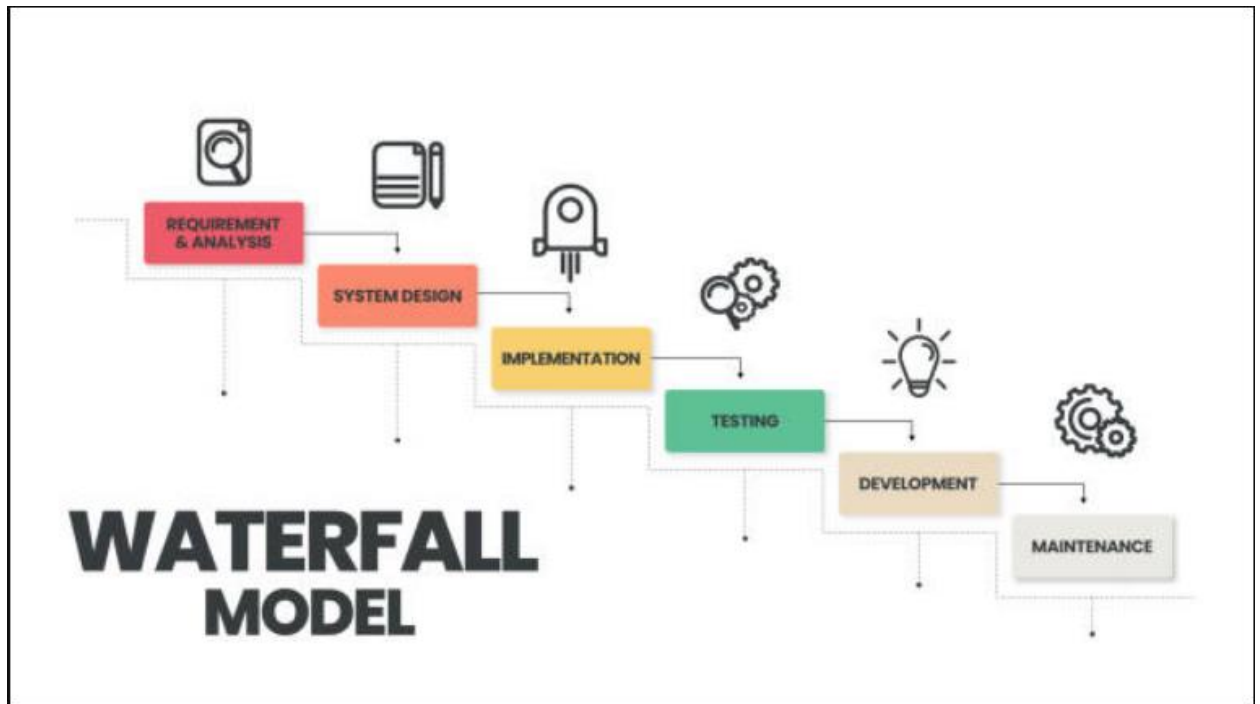
- jobs: Scrum outlines the many responsibilities of positions such as Development Team, Product Owner, and Scrum Master.
- Maintain routine practices such as sprint planning, sprint reviews, sprint retrospectives, and daily stand-ups.
- Important artifacts: In order to give the team visibility, the Product Backlog, Sprint Backlog, and Increment are necessary.



4.1.3 Waterfall Model

This Model uses a tightly linear and sequential procedure.; that is, each step must be finished before the next can begin. Although solid, I believe that projects with well specified requirements may benefit from a clear framework. Key points: Waterfall Model Phases

- Requirement specification: Extensive information about the functions that the product must have
- Pattern: From the point of view of the requirements, an architectural and accurate design pattern.
- Implementation: Build the system using the blueprints.
- Verification: System and approval testing at the end.
- Updates and ongoing help for the post-deployment pipelines



4.2 Selection Rationale

After a thorough analysis, the Agile Model was chosen as the starting point of the project "General Admin: Your All-in-One Management Dashboard." The logic behind the choice In the beginning, I certify that it is timely by sending in my response.

- Version and Quick Release: This method of development enables developers to constantly evaluate their work and adjust to college requirements, which is essential for an extensive process that is as complicated as university administration.
- In order to gather input from users and make sure that the product is in line with their demands in terms of usability and functionality, stakeholders have to work together continuously.
- In progressive delivery, early problem discovery and business alignment are made possible by regular releases of functional product increments.
- Enhanced Risk Management: Agile facilitates continuous planning, guaranteeing prompt detection and reduction of risks.

4.3 Methodology Sections

Important Topics for the Select Agile Method

This phase includes selecting items from the product backlog, defining the scope of work, and defining what can be achieved in the upcoming sprint in order to determine the development team's work goal.

- Daily standups are quick meetings held each day to discuss the day's plans, assess progress, and pinpoint obstacles.
- Sprint reviews are gatherings held at the conclusion of a sprint to showcase finished work and solicit input. Evaluation Meetings: Get-togethers following every sprint.
- Sprint Retrospectives: Think back on the sprint to identify what went well and where there were gaps so that you may learn as you go.
- Backlog refinement is the process of routinely assessing stakeholder feedback to update and prioritize the product backlog.

4.4 Implementation Plan

The "General Admin: Your All-In-One Management Dashboard" implementation strategy is as follows:

- Set up: Gathering the project staff, tools, and surroundings.
- Collecting needs entails working with interests to compile and describe specifications.
- Product Backlog and First Sprint Publishing Centre for Sprint Planning Related Posts
- Development: Work items are completed in each sprint by creating technologies one at a time.
- QA:DA to verify each CI/CD increment
- Review and Feedback: Following the completion of the run, reviews for each sprint are held in order to provide feedback that helps the following sprint get underway.

- First deployment refers to the gradual release of the product, whereas final deployment occurs when the entire system that is still in development is currently made live.

By carrying out this in an organized way, the project will be able to deliver a secure and effective management dashboard.

Chapter 5: Project Plan

5.1 work schedule fo the project

The structure of work breakdown provides a hierarchical decomposition of the tasks and deliverables required to complete the "General Admin: Your All-in-One Management Dashboard" project. The WBS ensures that all aspects of the project are identified and that tasks are managed effectively.

1	Task Name	Duration (days)	Start	End	Total Days

2	Set up project environment	2	February 1. 2024	February 3. 2024	2
3	Assemble project team	3	February 4. 2024	February 7. 2024	5
4	Define project scope and objectives	5	February 8 2024	February 13 202	10
5	Conduct stakeholder interviews	5	February 14 202	February 19 202	15
6	Collect and document requirements	7	February 20 202	February 27. 202	22
7	Prioritize requirements	3	February 28 202	March 2 2024	25
8	Create system architecture	8	March 3. 2024	March 12 2024	33
9	Design USAD interface mockups	5	March 13 2024	March 18 2024	38
10	Develop data models	7	March 19 2024	March 26 2024	45
11	Implement user management module	10	March 27 2024	April 7 2024	55

12	Develop content management functionality	12	April 8. 2024	April 22 2024	67
13	Create product management module	10	April 23, 2024	May 3. 2024	77
14	Integrate analytics and reporting tools	8	May 4, 2024	May 12, 2024	85
15	Write test cases	5	May 13. 2024	May 18. 2024	90
16	Perform unit testing	7	May 19, 2024	May 26 2024	97
17	Conduct system integration testing	8	May 27. 2024	June 3. 2024	105
18	Execute user acceptance testing (UAT)	5	June 4 2024	June 9 2024	110
19	Set up production environment	3	June 10. 2024	June 12 2024	113
20	Deploy the system	2	June 13 2024	June 14 2024	115
21	Perform post-deployment verification	3	June 15 2024	June 17. 2024	118
22	Monitor system performance	Ongoing	June 18 2024	Ongoing	118+

23	The total project duration is 118 days from February 1. 2024 to June 17 2024				
----	--	--	--	--	--

5.2 Resource Allocation

Effective resource allocation is vital to the successful execution of the project. The following resources have been allocated to ensure timely and efficient completion:

Task Name	Duration (days)	Start	End	Assigned Resources
Introduction	4	1 Feb 2023	4 Feb 2023	Project Manager, Business Analyst
Initial Study	3	5 Feb 2023	7 Feb 2023	Project Manager, Business Analyst
Literature Review	3	8 Feb 2023	10 Feb 2023	Business Analyst, Project Manager
Methodology	4	11 Feb 2023	14 Feb 2023	Project Manager, Team Lead
Project Planning	6	15 Feb 2023	20 Feb 2023	Project Manager, Team Lead, Business Analyst
Feasibility Analysis	7	21 Feb 2023	27 Feb 2023	Project Manager, Business Analyst, Team Lead

Task Name	Duration (days)	Start	End	Assigned Resources
Requirement Gathering	4	28 Feb 2023	3 Mar 2023	Business Analyst, Project Manager
Initial Design	5	4 Mar 2023	8 Mar 2023	UI/UX Designer, Team Lead
System Architecture	8	9 Mar 2023	16 Mar 2023	Team Lead, Software Developers
UI/UX Design	12	17 Mar 2023	28 Mar 2023	UI/UX Designer, Front-end Developers
Development Phase 1	12	29 Mar 2023	9 Apr 2023	Team Lead, Front-end Developers, Back-end Developers
Development Phase 2	17	10 Apr 2023	26 Apr 2023	Team Lead, Front-end Developers, Back-end Developers
Integration	7	27 Apr 2023	3 May 2023	Team Lead, Front-end Developers, Back-end Developers
Testing and Debugging	10	4 May 2023	13 May 2023	QA Testers, Software Developers
User Acceptance Testing (UAT)	5	14 May 2023	18 May 2023	QA Testers, Project Manager
Deployment Preparation	4	19 May 2023	22 May 2023	IT Support Team, Team Lead
Implementation	4	23 May 2023	26 May 2023	IT Support Team, Project Manager

Task Name	Duration (days)	Start	End	Assigned Resources
Post-Implementation Review	3	27 May 2023	29 May 2023	Project Manager, Business Analyst
Training and Documentation	5	30 May 2023	3 Jun 2023	Business Analyst, IT Support Team
Project Closure	4	4 Jun 2023	7 Jun 2023	Project Manager, Team Lead, Business Analyst
Total:	118 days			

5.3 Timeline and Milestones

The project timeline includes key milestones that ensure the project stays on track and reaches completion as scheduled. The following milestones have been identified:

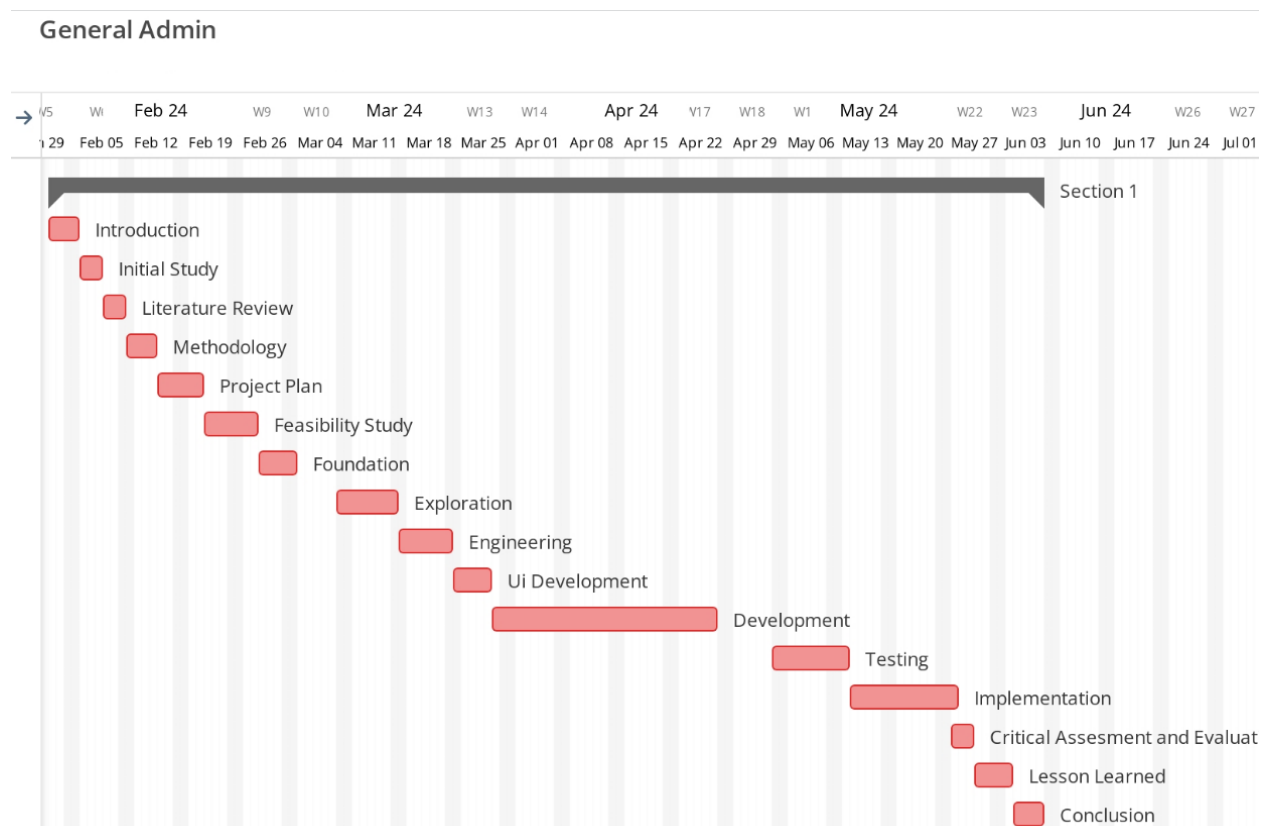
Time Box	Task Name	Duration (days)	Assigned Resources
Week 1	Project Kick-off	5	Project Manager, Business Analyst
	Assemble project team	2	Project Manager
	Finalize project scope and objectives	3	Project Manager, Business Analyst
Week 4	Completion of Requirements Gathering	7	Project Manager, Business Analyst
	Conduct stakeholder interviews	4	Business Analyst

Time Box	Task Name	Duration (days)	Assigned Resources
	Document and prioritize requirements	3	Business Analyst, Project Manager
Week 8	System Design Finalization	7	UI/UX Designer, Team Lead
	Develop system architecture	5	Team Lead, Software Developers
	Complete user interface mockups	2	UI/UX Designer
Week 12	Prototype Development	14	Team Lead, Front-end Developers, Back-end Developers
	Initial implementation of key functionalities	14	Front-end Developers, Back-end Developers
Week 20	Completion of Core Development	30	Team Lead, Front-end Developers, Back-end Developers
	Finalize user management, content management, and product management modules	30	Front-end Developers, Back-end Developers
Week 24	System Testing	10	QA Testers, Software Developers
	Perform unit, integration, and user acceptance testing	10	QA Testers, Software Developers
Week 28	System Deployment	7	IT Support Team, Project Manager
	Deploy the system to a production environment	7	IT Support Team, Project Manager
Week 30	Post-Deployment Support	10	IT Support Team, Business Analyst

Time Box	Task Name	Duration (days)	Assigned Resources
	Provide initial support and training	5	IT Support Team
	Monitor system performance	5	IT Support Team
	Total Day	118	

5.4 Gantt Chart

its provides a visual timeline of project activities, milestones, and dependencies. Below is a high-level approximation of the Gantt Chart for the project:



Note: The detailed Gantt Chart would be created using a project management tool like Microsoft Project or Trello, where specific tasks, durations, and dependencies can be visualized and tracked efficiently.

Chapter 6: Feasibility Study

6.1 Types of Feasibility Study

Conducting a feasibility study is an essential step before embarking on the development of "General Admin: Your All-in-One Management Dashboard." This study will analyze various factors to ensure the project's viability and success. The key types of feasibility studies undertaken include:

- Technical Feasibility
- Economic Feasibility
- Operational Feasibility
- Legal and Compliance Feasibility

Each of these studies will be examined to assess the project's potential benefits, risks, and resource requirements.

6.2 Technical Feasibility

Technological viability analyzes whether the project's current technological infrastructure can support the development and execution of the management dashboard, as well as the technical resources needed for the project..

Key Considerations:

- Technology Stack: The project will make use of contemporary web technologies including SQL/NoSQL databases, React.js for the front end, and Node.js for the back

end. JavaScript will also be used. The selected technologies meet industry standards, are scalable, and have strong support.

- **Expertise of the Development Team:** The team has the necessary training and experience in utilizing the chosen technology stack and techniques, including Agile and Scrum.
- **System Integration:** The ability to integrate with existing systems and third-party applications is feasible, thanks to APIs and microservices architecture. This ensures that the new platform will seamlessly communicate with other tools and software already in use.
- **Scalability and Performance:** The proposed system architecture supports scalability and can handle increasing loads and user demands efficiently.

Based on these considerations, the technical feasibility of developing "General Admin: Your All-in-One Management Dashboard" is deemed positive.

6.3 Economic Feasibility

Economic feasibility evaluates the financial aspects of the project to determine whether the benefits outweigh the costs. This includes a cost-benefit analysis and ROI estimation.

Key Considerations:

- **Initial Costs:** Initial development costs include expenses for software licenses, development tools, human resources, and infrastructure setup.
- **Ongoing Costs:** Recurring costs such as hosting, maintenance, updates, and support services must be accounted for.
- **Benefits:** The platform will likely reduce operational inefficiencies, resulting in cost savings. Improved decision-making, increased productivity, and enhanced user satisfaction contribute to financial gains.
- **ROI:** Expected return on investment (ROI) based on projected savings, increased efficiency, and potential new revenue streams through enhanced business operations.

After analyzing these factors, the economic feasibility indicates that the project is a financially sound investment, with anticipated long-term benefits outweighing the initial and ongoing costs.

6.4 Operational Feasibility

Operational feasibility assesses how well the proposed solution fits within the current operational processes, workflows, and organizational culture.

Key Considerations:

- **Business Processes:** The platform will streamline various administrative tasks, aligning well with current business processes. It will enhance efficiency and reduce redundancy.
- **User Adoption:** Due to its user-friendly interface and customizability, the platform is expected to gain quick acceptance among the staff, reducing resistance to change.
- **Training Requirements:** Adequate training programs and documentation will be provided to ensure smooth transition and effective use of the platform.
- **Support and Maintenance:** A dedicated support team will be available to resolve any issues, ensuring minimal disruption to business operations.

Considering these aspects, the operational feasibility of the project is robust as the platform will significantly improve current workflows and operational efficiency.

6.5 Legal and Compliance Feasibility

Law and devotion feasibility ensures that the project adheres to all relevant legal, regulatory, and compliance requirements.

Key Considerations:

- **Data Protection:** The platform remains by laws pertaining to data protection, including the CCPA and GDPR. Measures will be put in place to safeguard data security and privacy.
- **Industry Standards:** Adherence to industry-specific regulations, standards, and best practices will be maintained.
- **Licensing and Intellectual Property:** All software licenses will be acquired legitimately, and intellectual property rights will be respected.
- **Liability and Risk Management:** Comprehensive risk assessments will be conducted, and necessary liability protections will be incorporated.

The project satisfies all legal and compliance criteria, confirming its feasibility from a regulatory perspective.

Chapter 7: Requirements Analysis

7.1 Problem Area Identification

The identification of problem areas is the foundational step in creating an effective management dashboard. Businesses often face challenges in managing disparate systems for various administrative processes. This fragmentation leads to inefficiencies, higher operational costs, and inconsistencies in data. The key problem areas identified include:

- **Inefficiency in Administration:** Separate systems for user management, content management, and product management increase the administrative burden and reduce operational efficiency.
- **Lack of Integration:** Data silos resulting from unintegrated systems lead to inconsistencies and hinder comprehensive data analysis.
- **Complex User Interfaces:** Existing systems are often not user-friendly, making it difficult for non-technical users to navigate.
- **Scalability Issues:** Many current solutions do not scale well with the growth of the business.
- **Limited Customization:** Businesses have diverse needs, and existing systems often lack the flexibility to be customized to specific requirements.

7.2 Interviews and Surveys

To gather detailed requirements, interviews, and surveys were conducted with key stakeholders including business owners, administrators, and end-users. The objectives of these interviews and surveys were:

- Recognize the unique requirements and problems faced by various user groups.
- Gather insights into the desired features and functionalities.

- Identify gaps in current administrative systems.
- Obtain feedback on user experience with existing tools.

Key Findings:

- User Management: Need for a system that simplifies user role allocation, permissions, and profile management.
- Content Management: Desire for an intuitive content creation and publishing process with built-in SEO tools.
- Product Management: Requirement for efficient inventory tracking, sales analytics, and customizable product listings.
- Analytics: Strong demand for comprehensive, real-time data analytics and reporting.

7.3 Requirement Specifications

Based on the gathered data, detailed requirement specifications were developed. These specifications encompass both functional and non-functional requirements essential for creating a robust and efficient management dashboard.

7.4 Functional Requirements

The essential features that "General Admin: Your All-in-One Management Dashboard" must offer are outlined in the functional requirements. Important functional specifications include:

- User Management:
 - the capacity to add, modify, and remove user accounts.
 - authorization settings and access restriction based on roles.
 - User activity tracking and audit logs.

- Content Management:
 - ◆ Tools for content creation, editing, and publishing.
 - ◆ Support for multimedia content (images, videos).
 - ◆ Built-in SEO optimization features.
 - ◆ Version control and content rollback options.

- Product Management:

- ◆ Inventory tracking and management.
 - ◆ Product listing creation and customization.
 - ◆ Sales and performance analytics.
 - ◆ Integration with e-commerce platforms and POS systems.
- Analytics and Reporting:
- ◆ Real-time data visualization and dashboards.
 - ◆ Customizable reports and analytics.
 - ◆ Data export capabilities (CSV, Excel, PDF).

7.5 Non Functional Procedure Requirements

Non functional standards highlight the system's quality features, ensuring it is reliable, efficient, and user-friendly. Key non-functional requirements include:

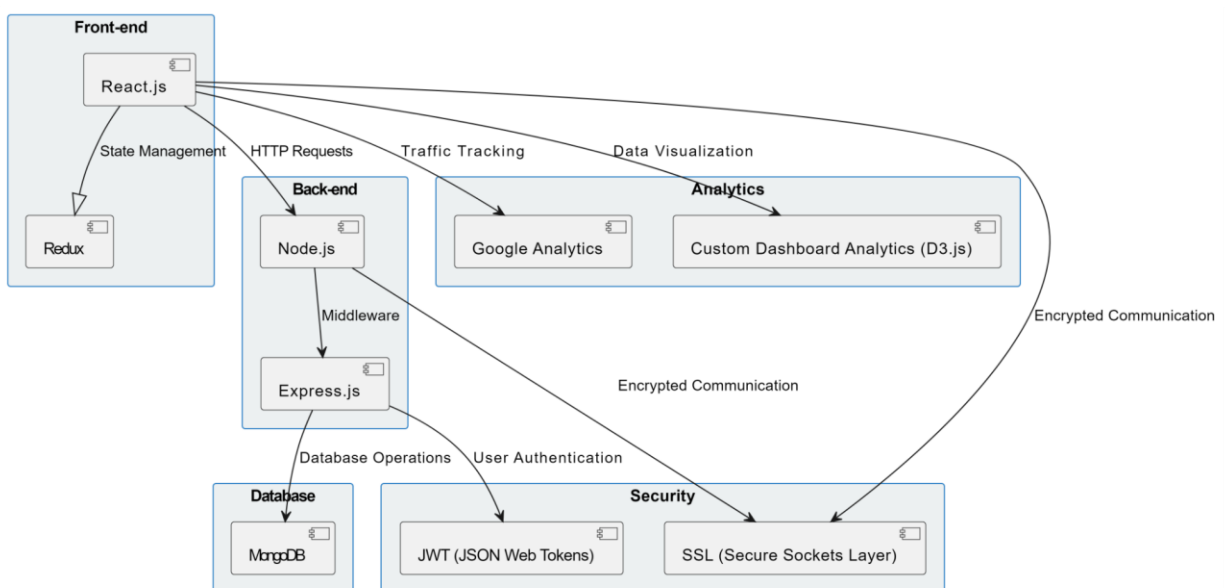
- Usability:
 - User-friendly interface with intuitive navigation.
 - Responsive design for compatibility with various devices.
- Performance:
 - Fast load times and high responsiveness.
 - Ability to handle a high volume of concurrent users and transactions.
- Scalability:
 - System must scale horizontally and vertically to accommodate growth.
 - Seamless performance under increased load.
- Security:
 - Strong data encryption and protection measures.
 - respect to data privacy laws
 - Frequent vulnerability analyses and security audits
- Reliability:
 - Low downtime and high availability
 - Strong disaster recovery and backup systems.

7.6 Technologies to be Implemented

The selection of appropriate technologies is critical to achieving the project's objectives. The following technologies have been identified for implementation:

- Front-end:
 - React.js: For building a dynamic and responsive user interface, employ React.js.
 - Rerun: state management.
- Back-end:
 - Node.js: To create scalable network applications and server-side scripting..
 - Express.js: For setting up middleware to handle HTTP requests, routing, and more.
- Database:
 - MongoDB: For a scalable and flexible NoSQL database solution.
- Analytics:
 - Google Analytics: For tracking and reporting website traffic.
 - Custom Dashboard Analytics: Built using D3.js or similar libraries for real-time data visualization.
- Security:
 - JWT (JSON Web Tokens): For user authentication.
 - SSL (Secure Sockets Layer): For encrypted communications.

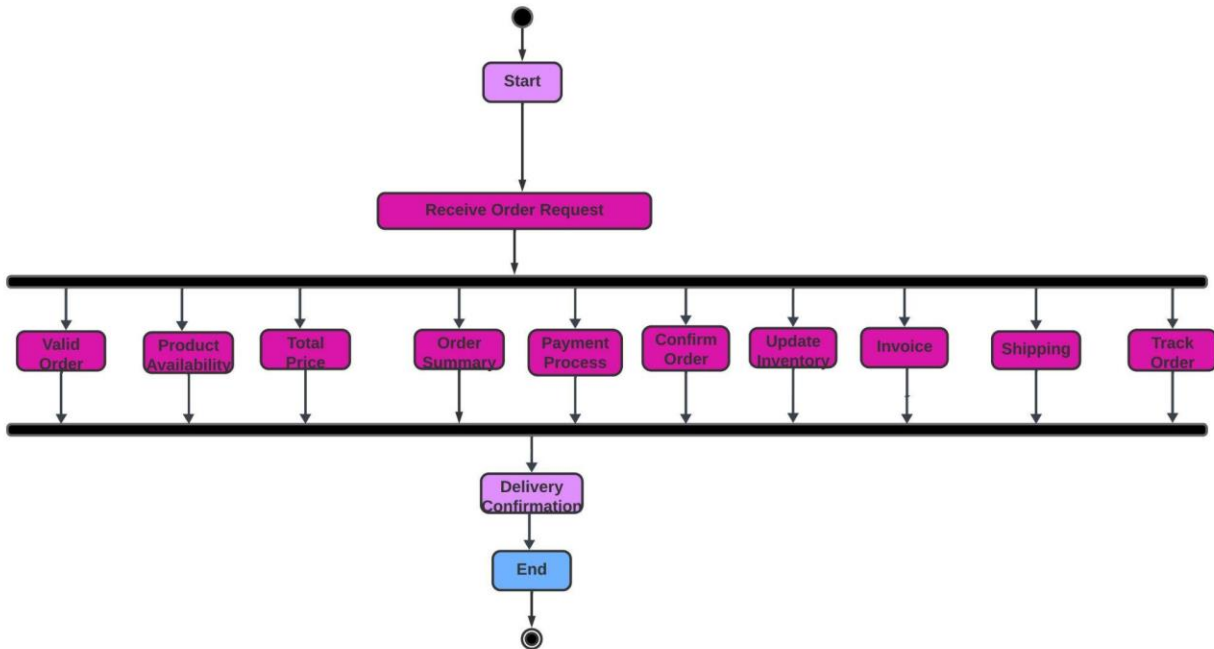
By leveraging these technologies, the "General Admin: Your All-in-One Management Dashboard" will provide a robust, scalable, and user-friendly platform to meet modern administrative needs.



Chapter 8: System Design and Architecture

8.1 System Design Overview

The system design for "General Admin: Your All-in-One Management Dashboard" focuses on creating a scalable, efficient, and user-friendly platform that integrates multiple administrative functions. The overarching architecture follows a modular approach, ensuring that each component can be developed, tested, and maintained independently while still functioning cohesively.



Key Design Principles:

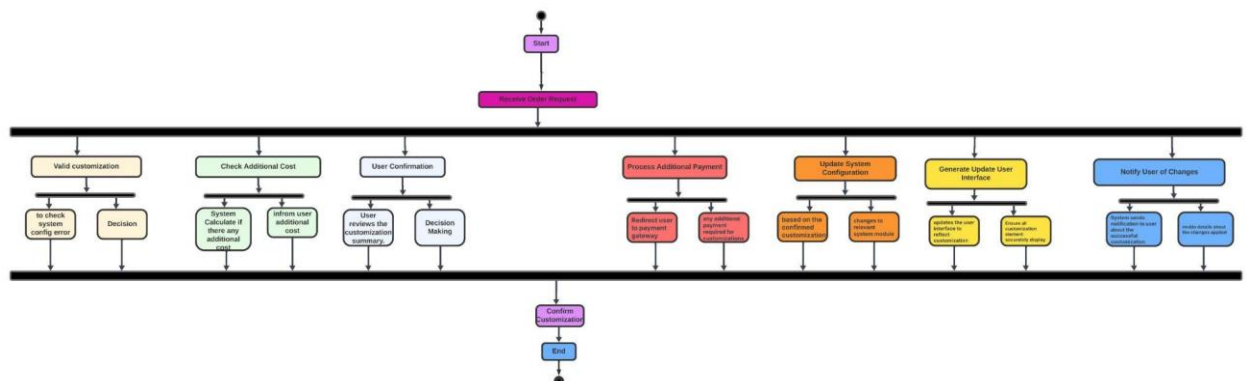
- **Modularity:** Breaking down the system into distinct modules (e.g., User Management, Content Management, Product Management) for ease of development and maintenance.
- **Scalability:** Ensuring the system can handle increased loads and expand seamlessly as the business grows.
- **Usability:** designing a simple layout that puts both novice and expert users' experiences first.
- **Security:** establishing extensive safety features in place to guarantee data quality, accessibility, and privacy.

8.2 Module and Component Design

The system design comprises several key modules, each responsible for specific functionalities within the dashboard:

- **User Management Module:**

- Role Management: Allows for the creation, editing, and deletion of user roles and permissions.
- User Profile Management: Handles user registration, profile updates, and activity logs.
- Authentication and Authorization: Uses JWT for secure user authentication and role-based access control.
- Content Management Module:
 - Content Creation: Tools for creating and editing text, images, and multimedia.
 - Content Publishing: Workflow for content approval and publishing.
 - SEO Tools: Built-in features for search engine optimization.
 - Version Control: Tracks changes and allows for content rollback.
- Product Management Module:
 - Inventory Management: Real-time tracking of inventory levels.
 - Product Listings: Creation and customization of product pages.
 - Sales Analytics: Tools for tracking and analyzing sales data.
 - Integration with Sales Channels: Seamless integration with Point-of-sale (POS) systems and online shopping portals.
- Analytics and Reporting Module:
 - Dashboard visual: Real-time data visualization and insights.
 - Custom Reports: Ability to generate and export custom reports.
 - User Behavior Tracking: Analytics on user interactions and behavior.

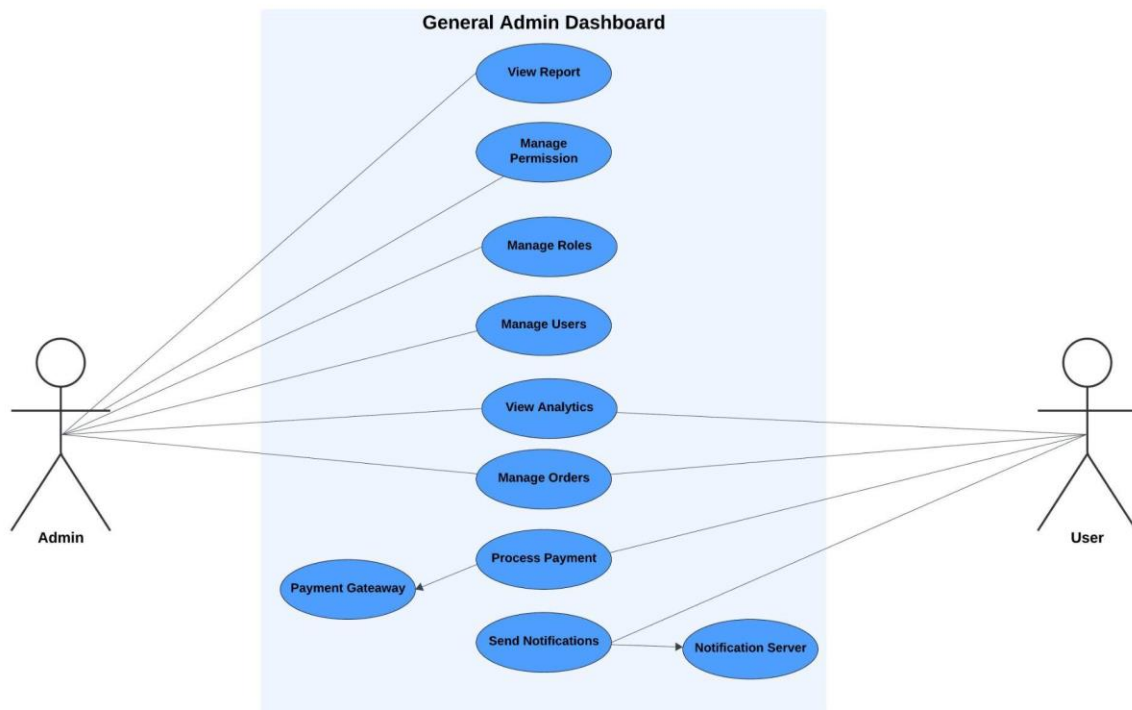


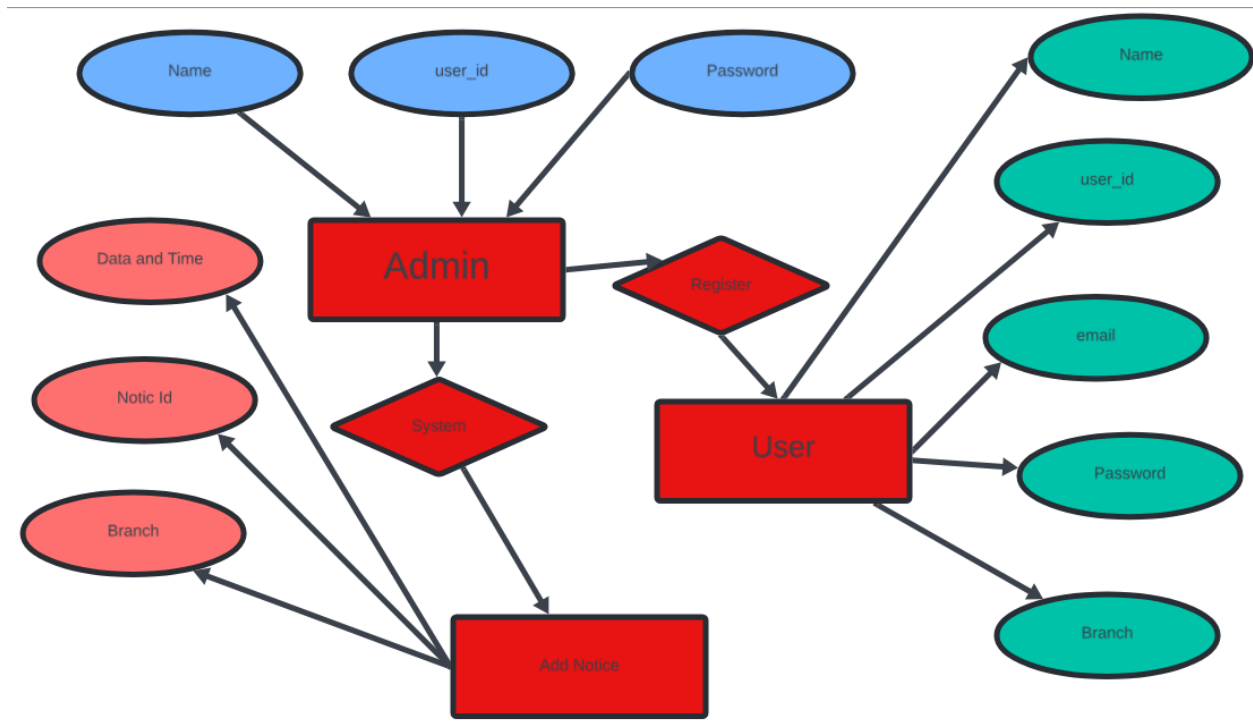
8.3 Database Design and Schema

The database design is a critical component, ensuring efficient data storage, retrieval, and management:

- Database Selection:
 - MongoDB: Chosen for its flexibility, scalability, and ease of use as a NoSQL database.
- Schema Design:
 - User Collection: Stores user profiles, roles, and permissions.
 - Fields: userID, userName, password (hashed), email, roles, activityLogs.
 - Content Collection: Manages content data including text, images, and multimedia.
 - Fields: contentID, title, body, authorID, createdAt, updatedAt, SEOTags, versionHistory.
 - Product Collection: Handles product information and inventory.
 - Fields: productID, name, description, price, inventoryCount, categoryID, salesData.
 - Analytics Collection: Stores data related to user interactions and system performance.
 - Fields: eventID, userID, eventType (e.g., login, view, purchase), timestamp.

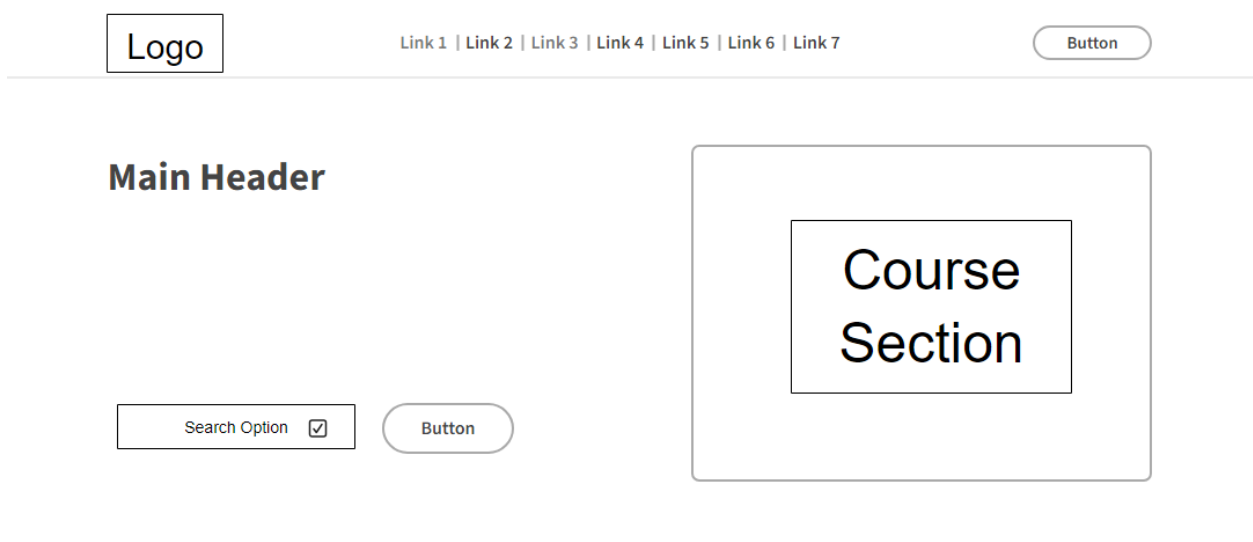
Entity-Relationship Diagram (ERD): Includes key entities such as Users, Roles, Content, Products, and Events, with relationships clearly defined to ensure referential integrity.

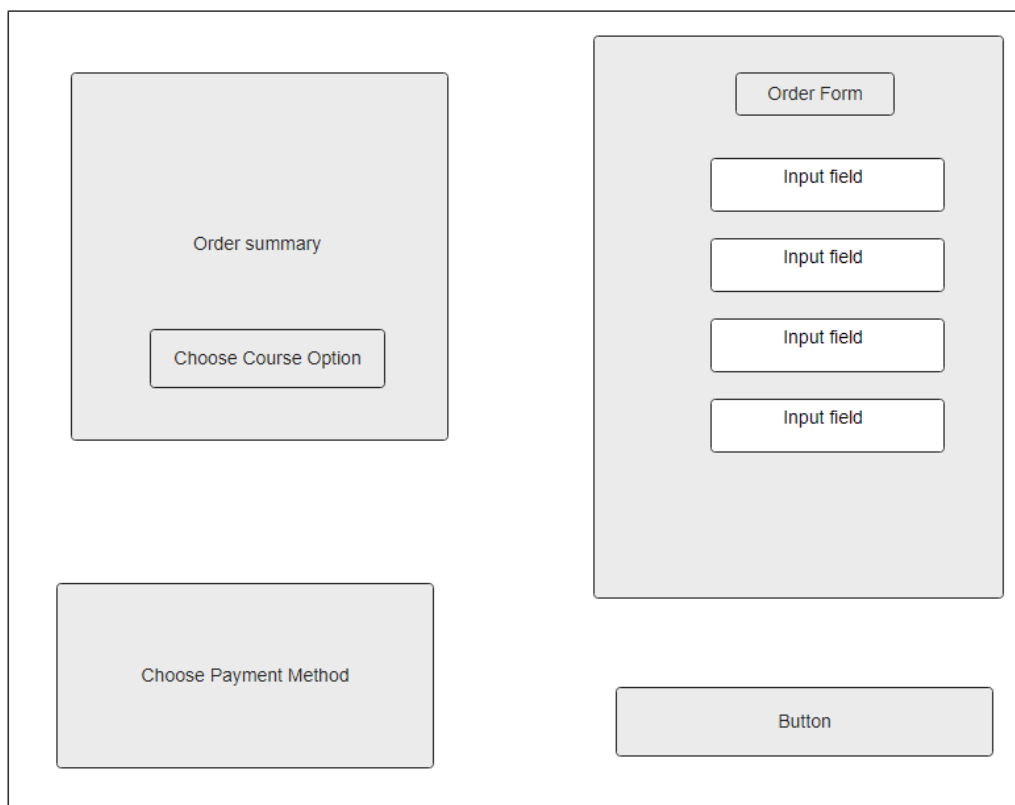
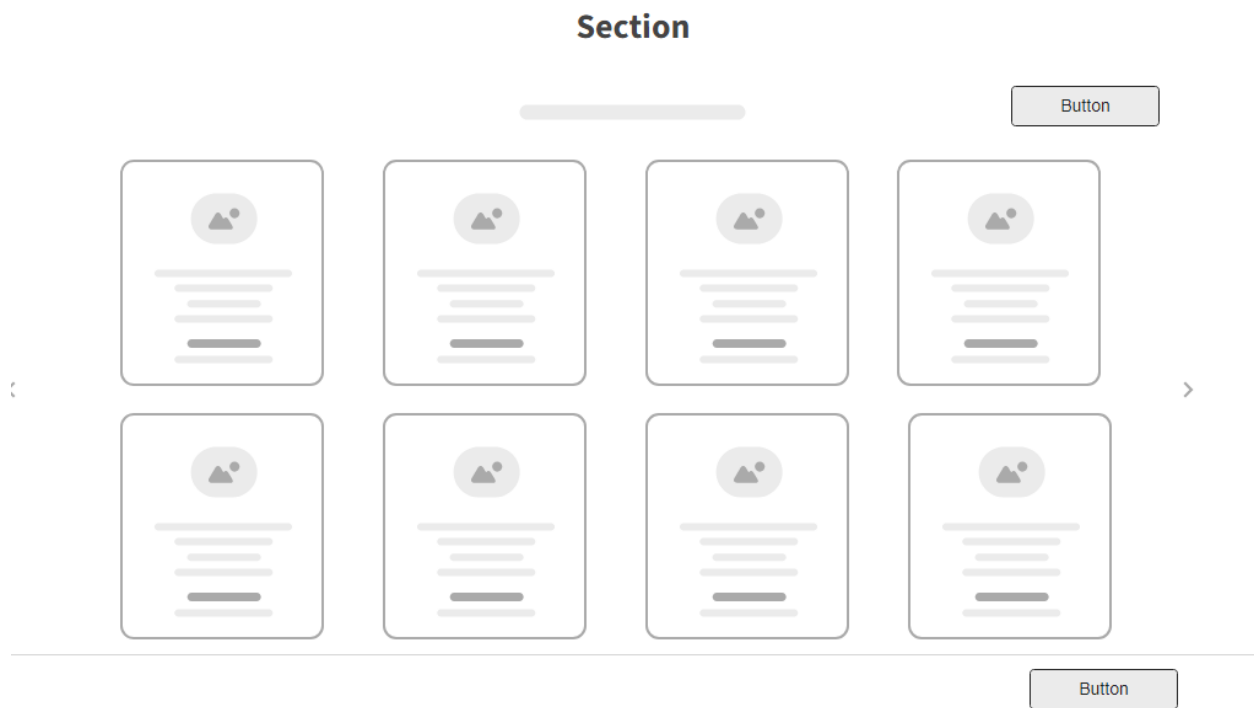




Erd Diagram

8.4 Low-Fidelity Prototypes



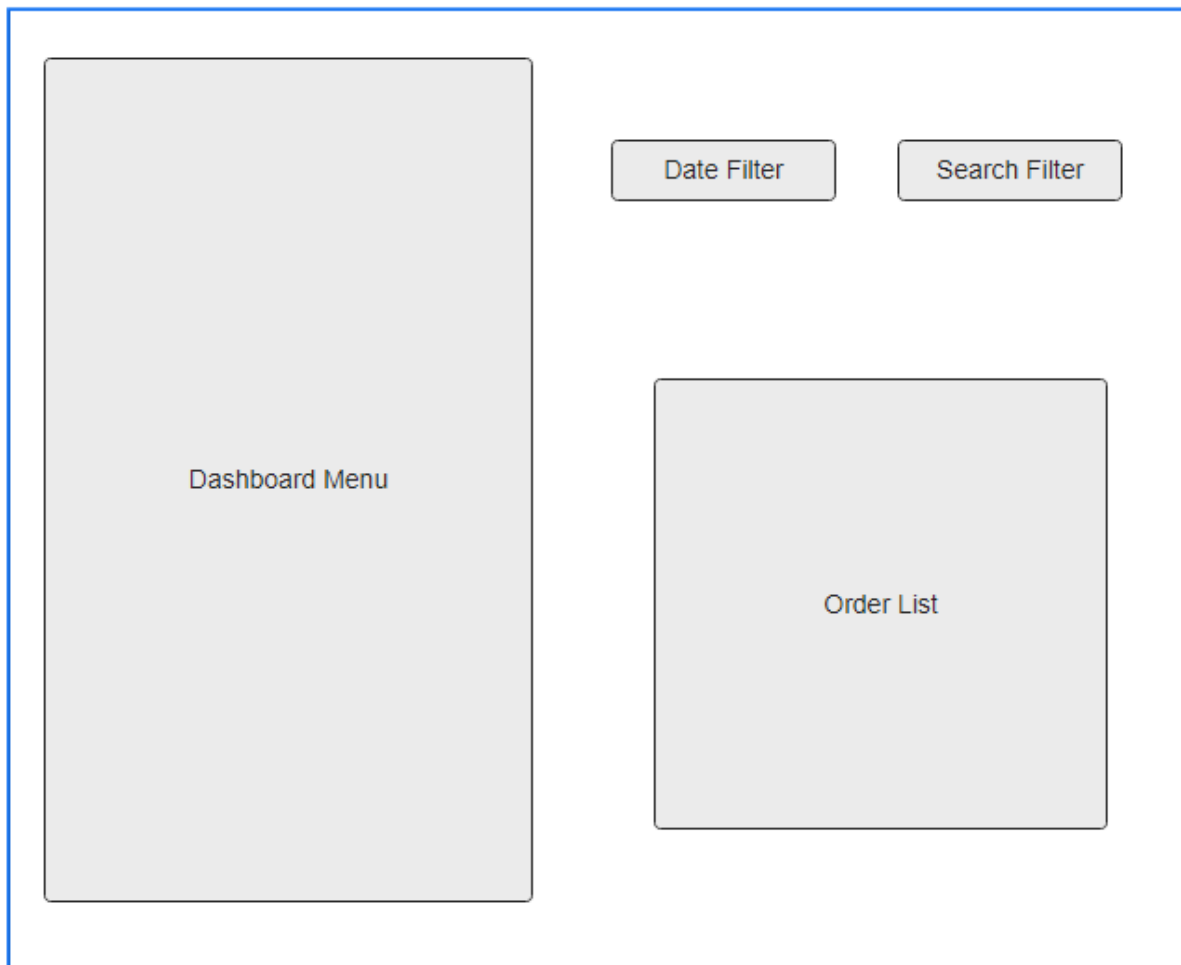


Login Form

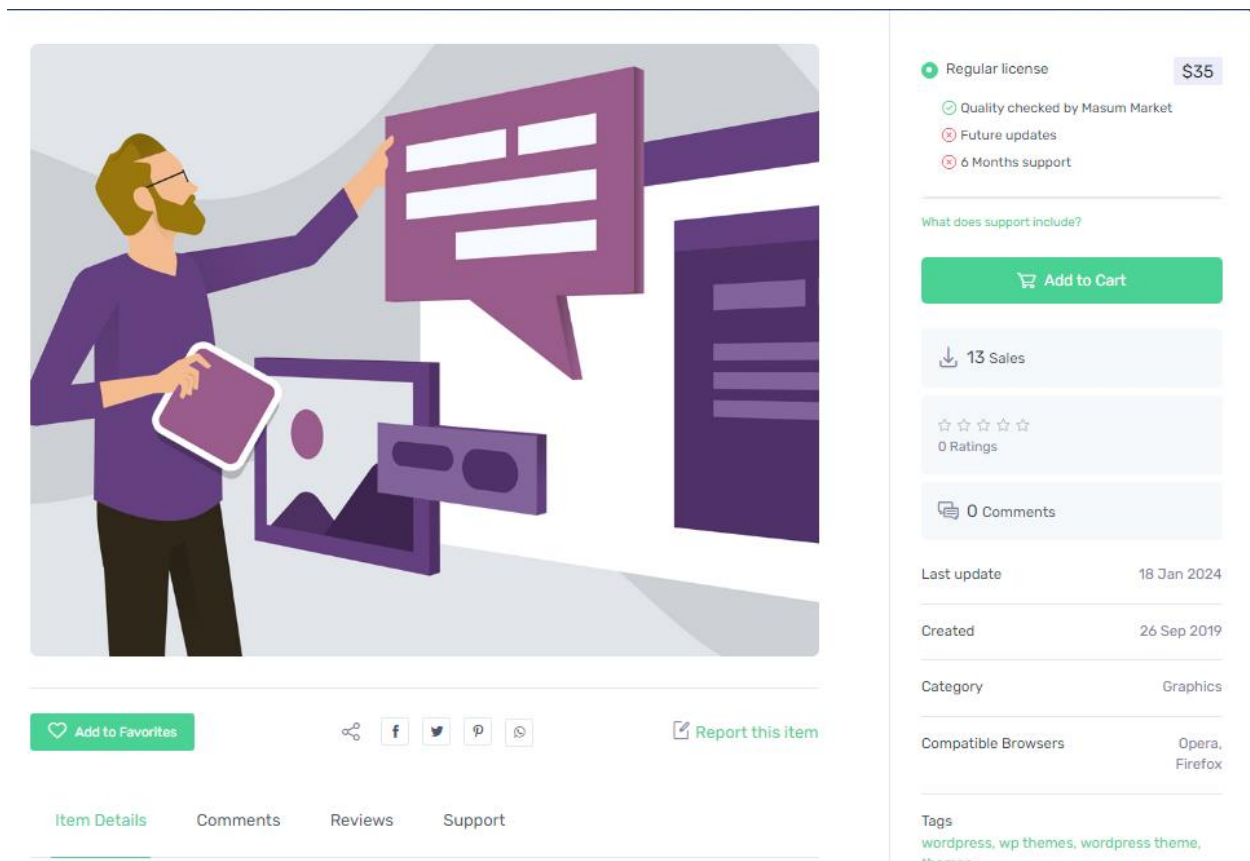
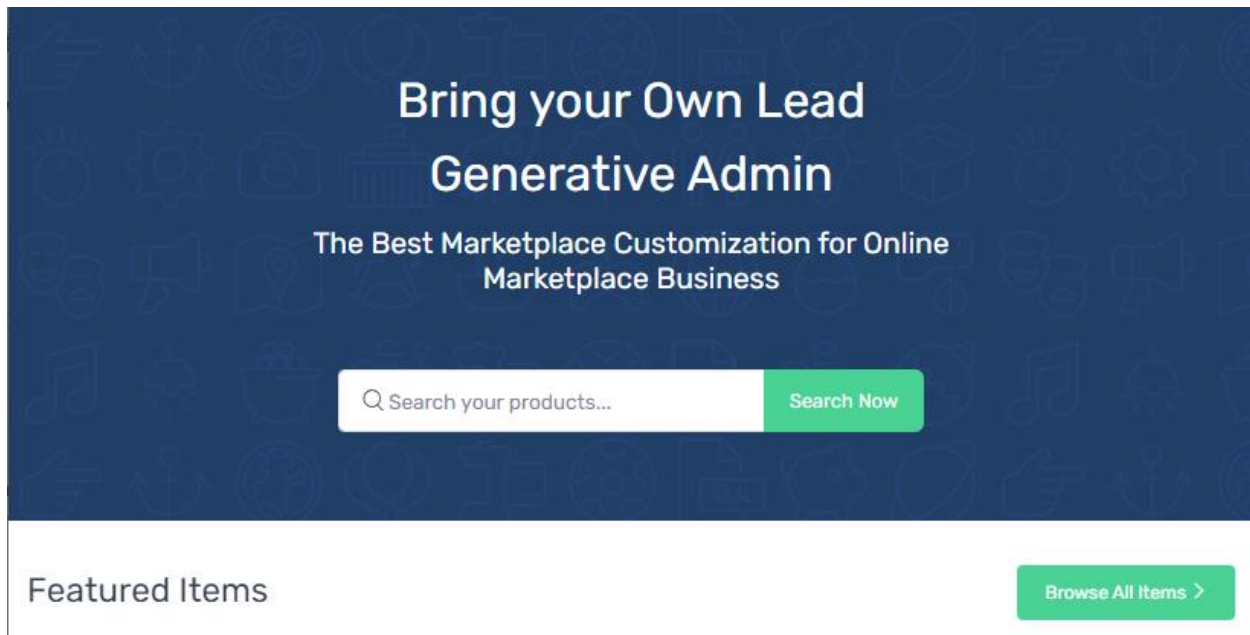
Input field

Input field

Button



8.5 High-Fidelity Prototypes



Not a customer yet?

Email address *

nadirbekkar35@gmail.com

Password *

Pay with paypal

☒ PayPal - the safer, easier way to pay

Checkout with PayPal

Order summary



Incididunt ut labore
\$ 35 | regular (6 months)

Subtotal	\$ 35
Processing Fee	\$ 5
VAT (%)	\$ 3.5

\$ 43.5

Login

With social account:



Or using login form below

✉ admin

🔒 *****



[Don't have an account?](#)

[Forgot password?](#)

 Sign In

Dashboard	Customers	Add Customer
Settings		
Country		
Sub Administrator		
Customers		
Subscription		
Manage Products		
Orders		
Refund Request		
Withdrawal Request		
Blog		

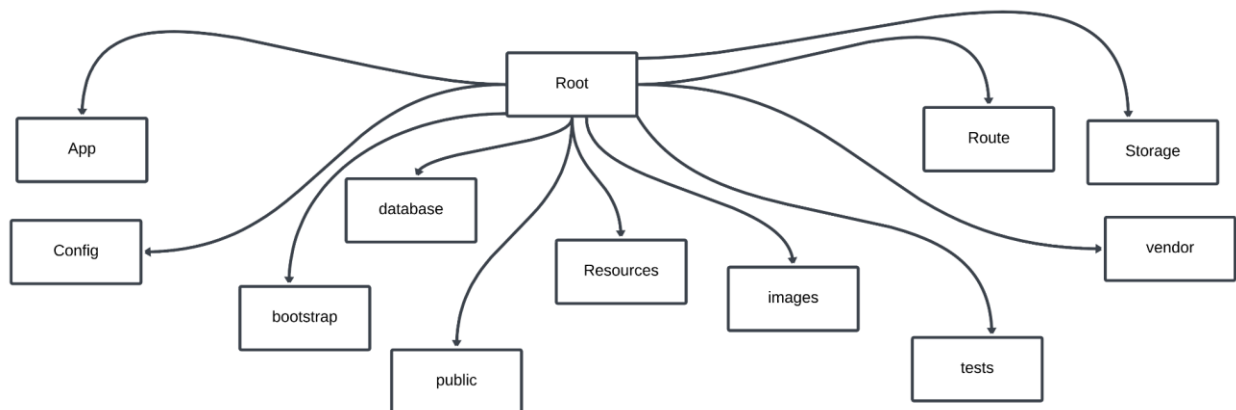
Sno	Name	Email	Photo	Email Verified	SignUp Type	Subscription Details	Payment Status	Earnings	Action
1	nadirongo	nadirongo@gmail.com		Verified	Email	----	Pending	\$ 0	Edit Delete
2	sample	sample@gmail.com		Verified	Email	----	Pending	\$ 0	Edit Delete
3	customer	customer@gmail.com		Verified	Email	View	Completed	\$ 0	Edit Delete

Showing 1 to 3 of 3 entries

[Previous](#) [Next](#)

Chapter 9: Implementation

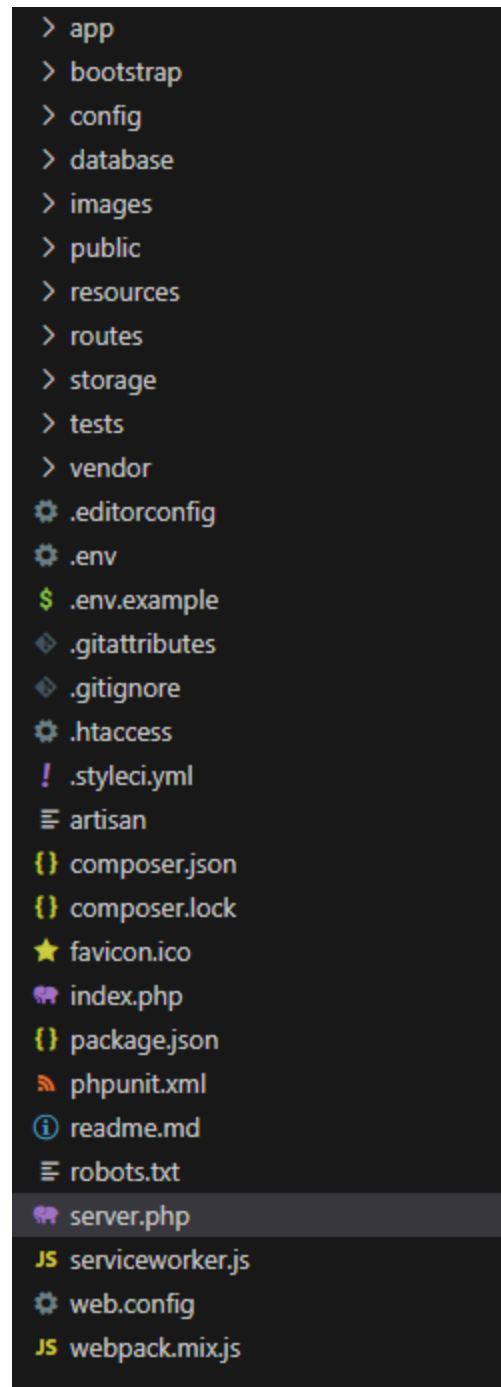
9.1 Folder Structure



A well-organized folder structure is crucial for maintaining code readability and ease of development. The folder structure for "General Admin: Your All-in-One Management

Dashboard" is designed to promote modularity and separate concerns effectively. Below is a proposed folder structure:

9.2 Actual Foder Structure



9.3 Core Module Output Sample





[Live Preview](#)

[Add to Favorites](#)

[Share](#) [Facebook](#) [Twitter](#) [Pinterest](#) [Email](#)

[Report this item](#)

[Item Details](#)

[Comments](#)

[Reviews](#)

[Support](#)

☒ Regular license \$3

☒ Quality checked by Masum Market

☒ Future updates

☒ 6 Months support

☐ Extended license \$10

What does support include?

[Add to Cart](#)

[20 Sales](#)

[0 Ratings](#)

[0 Comments](#)

Last update 18 Jan 2024

Created 26 Sep 2019

Category Scripts

Compatible Browsers Safari, Firefox, Internet Explorer

My Cart

[Home](#) > [My Cart](#)

[Back to shopping](#)

You have 1 products in your cart

[Clear cart](#)



Seo Basic Training
\$3 regular (6 months)

[Proceed To Checkout](#)

Sub total price \$3
Processing Fee \$5

Cart total

\$8

Coupon Code

[Apply Coupon](#)

Not a customer yet?

Email address *

nadirongo@gmail.com

Password *

.....

Pay with paypal

☒ PayPal - the safer, easier way to pay

Checkout with PayPal

Order summary



Cididunt ut labore et
\$ 3 | regular (6 months)

Subtotal	\$ 3
Processing Fee	\$ 5
VAT (%)	\$ 0.3

\$ 8.3

Login

With social account:



Or using login form below

✉ admin

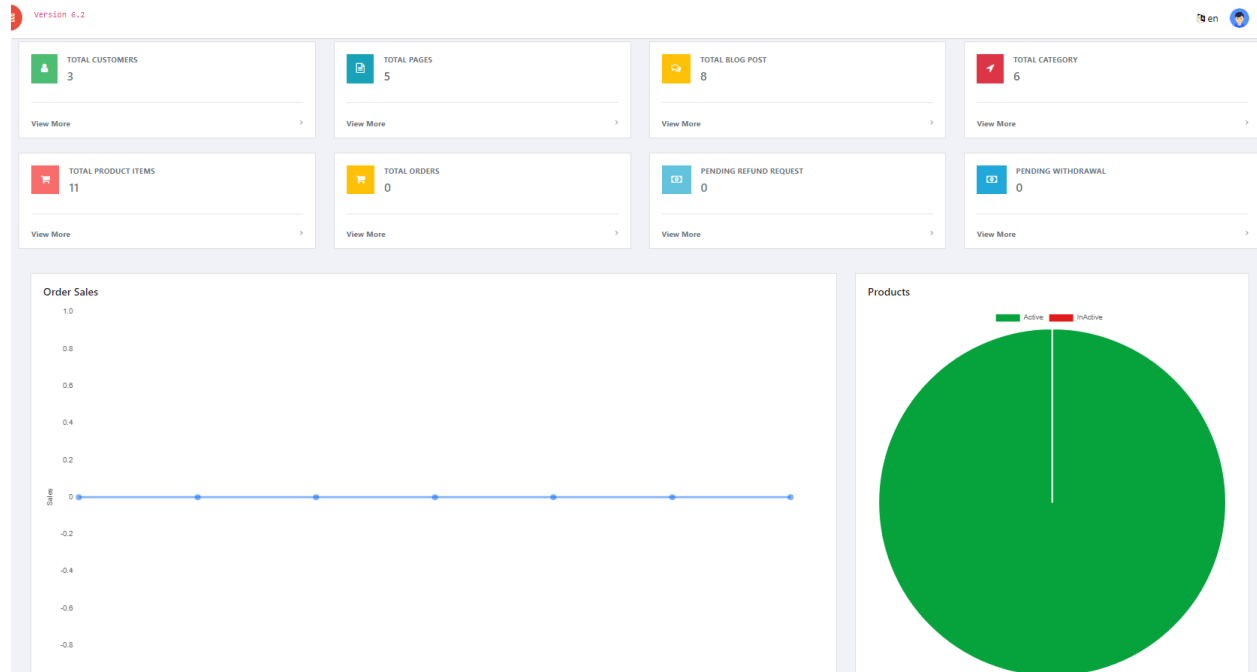
🔒



[Don't have an account?](#)

[Forgot password?](#)

🔑 Sign In



Customers										
Show 10 entries										
Search:										
Sno	Name	Email	Photo	Email Verified	SignUp Type	Subscription Details	Payment Status	Earnings	Action	
1	nadirongo	nadirongo@gmail.com		verified	Email	----	Pending	\$ 0	☒	☐ Edit Delete

Orders										
Sno	Order ID	Buyer	Amount	Processing Fee	VAT Fee	Payment Type	Payment Id	Complete Payment? (Localbank Only)	Action	
1	785879	nadirongo	\$8.3	\$5	\$0.3	paypal	---	---	View More	Delete

Showing 1 to 1 of 1 entries

Chapter 10: Testing

10.1 Test Plan and Strategy

To make sure "General Admin: Your All-in-One Management Dashboard" works as intended and satisfies the objectives, a thorough test strategy and plan are essential. The test plan outlines the testing operations' dimension, procedure, goods, and time. It contains the following key elements.:

- Objectives: It is essential to make sure that the system complies with every one of the function friendly and non tech demands.
- Scope : User acceptability testing (UAT), system that follow every, and unit testing are every element of the overall testing procedure.

Levels of Testing:

- Unit testing: Concentrates on distinct parts or features.
- Integration testing verifies that various services and modules interact as intended.
- System testing ensures that all of the system's parts match the criteria given.
- User Acceptance Testing (UAT) includes having end users test the system to ensure that their requirements and demands are met.
- Functional, performance, security, and usability testing are the several types of testing.
- Tools and Resources: Postman is used for API testing, Selenium is used for automated UI testing, and Jest is used for unit testing.
- Schedule: A thorough timetable outlining each stage of the test.

10.2 Unit Testing

Name	Test Case	Test finite	Possible result	Realview	Action
------	-----------	-------------	-----------------	----------	--------

Case Test 1	They should login handover to customer	Look to see if the username and password of the user are valid for login.	User can be in the viewpoint	User logs in successfully	Passed
		Check for incorrect password handling	Error message displayed	Error message displayed	Passed
		Verify that the session is maintained after login	Session maintained	Session maintained	Passed
		Check if the login fails with unregistered email	Error message displayed	Error message displayed	Passed

Test Case Name	Test Case	Test Scenario	Expected Result	Actual Result	Remarks
Unit Test - 2	Test data addition functionality	Verify that new data entries are added successfully	New entry added	New entry added	Passed
	Check for validation errors when mandatory fields are empty	Validation error displayed	Validation error displayed	Passed	

	Verify that duplicate entries are not allowed	Error message displayed	Error message displayed	Passed	
	Check if the data persists after a page reload	Data persists	Data persists	Passed	

Base 11.2. 3-1: Case Unit 3

Base on Scenario	Unit Test 3
Phase test	Examine the functioning of the user management system.

Basic Project	Conditional Result	Real view	Remarks
Confirm that the admin dashboard allows for the addition of new users.	Users are added successfully	Users are added successfully	Passed

Check if user roles and permissions are correctly assigned and saved	User roles and permissions are assigned and saved correctly	User roles and permissions are assigned and saved correctly	Passed
---	--	--	---------------

Project Name	Unit Test 4
Project review	Manufacture report

Flow of Base	Ongoing expect	Real view	Remarks
Make that the dashboard produces timely and accurate reports on user activity.	Reports are generated accurately and timely	Reports are generated accurately and timely	Passed
Check if the reports can be exported to various formats (e.g., PDF, Excel)	Data can be transferred to different formats, such as Excel and PDF	Presentations are reusable to Excel and PDF, and other formats.	Passed

Project Base	Case Test 1
Examine	serverside unit examine

Basic Test	Ongoing	Real view	Remarks
Test the dashboard rendering functionality	Dashboard should render properly	Dashboard rendered properly	Passed
Verify the functionality of user management interface components	User management components should work correctly	User management components are working seamlessly	Passed
Test the integration of frontend components with the user interface	All frontend components should be well integrated with the UI	UI components integrated correctly	Passed

Chart 11.3.2 -1: Module Test-2

Base Project Name	Case Review 2
Scenario Base	Formal Model Case

Basic Need	Oncase result	Real Feedvack	Action
-------------------	----------------------	----------------------	---------------

Examine the API endpoints that manage user activities like registration, login, and data retrieval.	All API endpoints should perform correctly	All API endpoints working correctly	Passed
Verify the data validation and error handling in the backend APIs	Ensure data validation and error handling are effective	Data validation and error handling working correctly	Passed
Test integration with external services, such as database and authentication APIs	External services should integrate seamlessly	All external services are integrated correctly	Passed

chart 11.3.3-1: Module Test-3

Project Base Name	Test 3
Form	Model to order process

Base on Project	Ongoing Result	Real Result	Checking
-----------------	----------------	-------------	----------

Check that order totals and discount applications are calculated accurately.	Order totals and discounts should be calculated correctly	Order totals and discounts calculated correctly	Passed
There will a process to pay the gateway and it should be processing successfull	Payment gateway should process orders without errors	Payment gateway processing orders without errors	Passed
Verify the payment gateway integration to ensure smooth order processing.	Order summary should be accurate and displayed correctly	Order summary displayed accurately	Passed

Table 11.3.5-1: Integration Test

Remain Name Form	Maintanance show
Project scenario	Review result

Project testing	Following achivement	Based on the test	Check
-----------------	----------------------	-------------------	-------

between the user management dashboard and backend database to ensure smooth data operations	The user management dashboard and backend database communicate smoothly through the API	The user management dashboard and backend database communicate smoothly through the API	Passed
Verify the integration of external services, such as authentication and reporting libraries used in the project	External services, including authentication and reporting libraries, work simultaneously	External services, including authentication and reporting libraries, are installed properly and versions are controlled	Passed

Chapter 11: Deployment

11.1 Deployment Plan

The deployment plan for "General Admin: Your All-in-One Management Dashboard" ensures a simple transition between the development and production environments. A number of crucial processes are included in the deployment process to reduce interruptions and guarantee system dependability.

Key Steps:

- **Pre-Deployment Activities:**
 - **Code Review and Testing:** Conduct final code reviews and comprehensive testing to ensure the system is free of critical bugs.
 - **Backup and Recovery Plan:** To prevent data loss during deployment, put in place a strong backup and recovery plan.
 - **Configuration Management:** Define and document all configuration settings for the production environment.
- **Deployment Activities:**
 - **Environment Setup:** Set up the production environment, including servers, databases, and networking components.
 - **Code Deployment:** The code should be deployed to the production environment using automated deployment methods (such as Jenkins or GitHub Actions).
 - **Database Migration:** Execute database migration scripts to update the production database schema and data.
 - **Configuration Adjustment:** Apply any necessary configuration adjustments based on the production environment specifics.
- **Post-Deployment Activities:**
 - **System Verification:** Perform thorough verification to ensure all components are functioning correctly in the production environment.
 - **Monitoring:** Use monitoring tools (such as Datadog and New Relic) to keep an eye on system performance and identify problems instantly.
 - **User Notification:** Inform users about the new system deployment and provide them with relevant details, including any expected downtime.

11.2 Training

Effective training is crucial for ensuring that users can efficiently utilize the new management dashboard. The training program will cover both technical and non-technical aspects to accommodate different user roles.

Training Plan:

- Training Sessions:
 - Administrators: Focused on advanced features, system configuration, and troubleshooting.
 - General Users: Emphasis on daily usage, navigation, and basic functionalities.
- Materials Provided:
 - User Manuals: Comprehensive guides detailing system features, workflows, and troubleshooting steps.
 - Video Tutorials: Step-by-step video tutorials to visually demonstrate system use cases.
 - FAQs and Knowledge Base: A repository of frequently asked questions and detailed answers to common issues.
- Support Systems:
 - Help Line: Set up a point of contact to respond to user questions and offer ongoing aid.
 - Feedback Mechanism: Implement a system for users to provide feedback on training sessions and system usability.

Sample Training Schedule:

- Week 1: Introduction and Overview
 - Introduction to the system
 - Overview of the key features and modules
- Week 2: Module-Specific Training
 - User Management
 - Content Management
 - Product Management
- Week 3: Advanced Features and Customization
 - Customizing dashboards and reports
 - Setting up user roles and permissions
- Week 4: Hands-On Practice and Q&A
 - Practical sessions with hands-on tasks

- Q&A sessions to address user concerns

11.3 Scaling and Load Balancing

Scaling and load balancing are essential for ensuring that the "General Admin: Your All-in-One Management Dashboard" can handle growth in user base and data volume while maintaining performance and availability.

Scaling Strategies:

- Vertical Scaling: Enhancing the capacity of existing servers, such as upgrading CPU, memory, or storage.
- Horizontal Scaling: Adding more servers to distribute the load, enhancing the system's ability to handle increased traffic and data.

Ways of Load Balancing:

- Round Robin: Providing incoming requests among multiple servers in an equitable manner.
- Limited Connections: Sending fresh queries to the server with the least number of open connections.
- IP hashing: Using the client's IP address to identify requests, this technique makes sure that requests from the same client reach the same server.

Implementation Steps:

- Load Balancer Setup:
 - Implement load balancers using tools such as Nginx, HAProxy, or AWS Elastic Load Balancing (ELB).
 - Configure load balancing algorithms based on traffic patterns and server capacity.
- Auto-Scaling Configuration:
 - Use cloud platforms like AWS, Azure, or Google Cloud to configure auto-scaling groups.
 - Define scaling policies based on metrics such as CPU usage, memory consumption, and request rates.

- Performance Monitoring:
 - Continuous monitoring of system performance to detect bottlenecks.
 - Use monitoring tools to gather insights and adjust scaling strategies accordingly.

Benefits:

- Improved Reliability: Ensures high availability and reduces the risk of system downtime.
- Enhanced Performance: Maintains optimal system performance even during peak usage periods.
- Cost Efficiency: Balances resource utilization and cost, scaling up during high demand and scaling down when demand decreases.

By following the outlined deployment plan, implementing a comprehensive training program, and adopting effective scaling and load balancing strategies, "General Admin: Your All-in-One Management Dashboard" ensures a successful deployment and long-term sustainability.

Chapter 12: Evaluation and Critical Appraisal

12.1 Evaluation of Objectives Met

This is important because it shows you how well the group has fulfilled its goals. This assessment looks at how well the finished work complies with the original requirements and goals.

Principal goals and conclusions:

The Role Merging of the Prosecutor General's Office:

- Our goal is to establish a central platform that can interface with product, content, and user administration.
- Evaluation: Completely connected backbone of continuous administrative development was successfully delivered, avoiding the cupcakes that split data and speeding up both duplication.

Easy to Use Interface:

- Objective: A easy to use interface for people of all technical backgrounds
- Analysis: We successfully developed a user-friendly, mobile-friendly interface that was well-received by our target market and raised end-user satisfaction.

Performance & Scalability:

- Objective: Accurate scaling and functionality at higher loads.
- Assessment: checked sure there is effective load balancing and applied scaling procedures in both directions so the system may expand as needed and function as intended.moderate

Safety and Adherence:

- Goal: Models an encrypted data lake and displays how strong safety measures can be added to protect data and guarantee respect to the law.
- Assessment: The execution of roles-based access control, data security, and legal compliance includes CCPA and GDPR regulation compliances.

immediately reporting and analytics

- The goal is to provide personalised reporting and real-time analytics.
- The outcome: Built interactive reporting features and real-time dashboards that give users the information they need to make decisions.

12.2 Areas of Improvement

Even though the project produced a lot of benefits, there are still certain things that may be done to increase the overall utility and use of the system.

Identified Improvement Opportunities

Additional Customization choices:

- As of right now, not many features are available
- Improvement: Provide a greater variety of customization choices for reports and dashboards to accommodate various business requirements.

Improving Performance:

- System Under Normal Load: When the system is not overwhelmed, it functions well.
- Improvement: Increase the number of buffering techniques you employ and make use of database indexes to improve speed under high load scenarios.

Onboarding and User Training:

- Current Situation: The first training interventions are being implemented.
- What has to be improved: Provide more comprehensive user manuals and onboarding tutorials to promote user proficiency and adoption more quickly

Integration of Mobile Apps:

- Value Add: It may now be accessed on mobile devices using a web browser.
- Improvement: Develop stand-alone mobile apps to improve the usability and user experience on tablets and smartphones.

Guidelines and Support System:

- Previous: Our support desk offers some help.
- Improvement: Install a strong ticketing system to help handle issues with faults and assist in fixing user problems. a useful and supportive ticketing system that aids in managing the defect tickets.

What we intended to do and what is yet unfulfilled First Survey (SE) Shop Performance Version 2.0 of Summarize in SD Overwatch patchLE or the Continuum logo vs Frakwhore v2Developer API data tracking is implemented but turned off. Potential Next Steps

12.3 Features Not Fully Implemented

While a lot has been finished, certain features were either partially merged or need further work to be up to our requirements.

Features Not Partially or Only Partially Applied

Advanced Access Control Based on Roles

- Current Situation: Applying basic role-based access control
- Better Permissions: To better handle limitations for various user groups, give permission functions more specificity.

Automated Reporting:

- Present Situation: The only way to create custom reports is manually.
- Next Steps: By including automatic report production, which will aid with time savings and efficiency optimization, the above solution can be made better.

AI-Powered Perceptions:

- Basic analytics: Do not offer

- Next Steps: To achieve higher-level business intelligence capabilities, incorporate insights powered by AI and predictive analytics.

Combining with outside software

- Status: There is some availability for connection with POS and e-commerce platforms.
- Develop: Increase our reach by adding well-known business products and services to our partnerships with other third-party software providers.

Measures for User Engagement:

- Status: Early user engagement data are available.
- Advanced Usage: To gain even more insight into how users interact with your website, develop advanced techniques for tracking user activity and user engagement.

Method for Conclusion:

- The development team has created a detailed plan for future stages of development in order to address these incomplete functionalities.
- Ongoing testing and user feedback will inform the regular release of updates and optimizations.
- Examining certain achieved goals, look for opportunities for enhancement, and address both completed and unfinished features as indicated in the project can allow the AIO management dashboard to continue evolving.

Chapter 13: Lessons Learned

13.1 Pre-Project Review

To ensure an ideal development approach, the team performed a thorough pre-project assessment before starting "General Admin: Your All-in-One Management Dashboard." The player parts in this review were as follows:

Goals and Objectives:

- Specific project goals are necessary to guarantee that the deliverables will satisfy stakeholders and business needs.
- Establish measurable goals to monitor development and assess the project's returns.

Engaging Stakeholders:

- Key players are recognized, and channels of consistent contact are maintained.
- arranged initial conversations to find out what they needed, why they required it, and what success entailed.

Planning Resources:

- Our team consisted of extremely talented individuals, including QA testers, developers, designers, and project managers.
- constructed the facilities, technologies, and tools required to support development efforts.

Evaluation of Risk:

- identified potential risks and implemented mitigation measures so as to conduct an extensive risk assessment.
- created a risk management strategy that would allow risks to be addressed quickly and shield the advancement of the project from danger.

13.2 Challenges Faced and Solutions Implemented

Every decision the team had to make had to be made with new perspective due to the demands of working in real time. Several Significant Issues and Related Solutions:

Challenge 1 : is that the requirements are unclear.

- Long description: There was no actual question, and because the requirements were not well-refined, they proved prone to scope creep and inaccurate stakeholder expectation alignment.
- Resolution: Holding additional meetings and closely engaging with stakeholders to set priorities and freeze requirements. used an agile methodology to keep alignment throughout the project and create feedback loops between phases.

Challenge 2 : Connectivity with Legacy Systems

- Brief description: Due to compatibility issues and data gaps, integrating the new dashboard with the existing legacy systems has proven to be extremely challenging.
- Solution : The answer is to use APIs and gateway solutions for smooth integration. carried out data transformation and cleaning operations to keep data similar in terms of quality, honesty, and consistency across systems.

Challenges 3 : Acceleration Sense

- As the project developed, significant performance limits were found that would test the limits of responsive system design and improve user experience.
- Solution: Several performance optimization methods, such as database indexing, query optimization, and caching methods, were put into practice. load testing was performed in order to identify performance issues as soon as possible

Challenge 4: Begin with Training and Adoption

- A significant challenge was setting up the new system and figuring out how to help people with no technical expertise accept and operate it properly.
- Solution: Developed interactive workshops, user guides, and video tutorials as part of multi-tiered training programs. built a stand-alone help desk in order to keep serving end users and getting immediate help.

Challenge 5: Security and Compliance

- Background: Questions about how well systems can ensure a given level of protection are common when discussing systems that handle sensitive data and are subject to strict security and compliance manages (and rules!).
- Resolution: Role-based access restriction, data encryption, and frequent security audits allowed constant tracking and updates to facilitate compliance with laws such as the Consumer Protection Act (CCPA) and GDPR.

13.3 Overall Experience

Overall, creating "General Admin: Your All in One Management Dashboard" was both tough and rewarding. Important lessons discovered: The group gained valuable information that will guide further efforts in the community.

Working Together & Communicating:

- Summary: A project's success depends on the team members' and stakeholders' practices of cooperation and communication.
- Learning: Keeping open lines of communication, updated status updates, and weekly check-ins helps to keep everyone in the know.

Flexibility and Agility:

- And now for the lesson: By applying agile principles to requirements and priority changes, the team was able to be both responsive and adaptable.
- Learning Result: Continuous Feedback and Iterative Development = Flexibility to Provide Incremental Value and Adjust to Changing Requirements

Essential Is Focused on users Design

- Lesson Learned: By doing this, we were able to finally focus on the user and the necessity of including them in the development of a more user-friendly, simple system.
- Learning: We think that this release's success was mainly due to our feedback sessions and 16-user usability testing.

Dedication to Quality:

- Conclusion: In order to release a system that should be error-free and in production for an extended period of time, extensive testing and a heavy focus on quality control are essential.

- Lessons learned: By thoroughly testing every step of the way, from unit testing to user approval testing, any problems could be found early in the development process and fixed, leading to a better finished product.

Long-Term Goals:

- FEMC found that it was important to plan not just for the short-term requirements of a project but also for a longer-term vision that would enable FEMC to become more scalable.
- Practice: By building the system with scale and simple improvement in mind, the system was positioned for future expansion and evolution.
- The team's next projects will benefit from improved teamwork, concentration, and resource use thanks to the lessons learnt.

Chapter 14: Conclusion

14.1

"General Admin: Your All-in-One Management Dashboard" aims to develop a complete end-to-end solution that offers a wide range of administrative features on a single platform that can be expanded up. This LIVE project's focused planning, design, and implementation have produced a useful solution that immediately enhances staff operating efficiency, customer U/X, and data integrity.

key Achievements:

Because users often had roles in managing products, dividing content to products, and using known as user management data, the three different dashboards were consolidated.

- UI: More responsive and user-friendly interface was developed for both technical and non-technical users.
- A modular design was put in place to manage future expansion and to improve performance under heavier loads.
- Security: Strict security measures are used to guarantee
- Real-Time Reporting: Immediate reporting, analytics, and conversion monitoring are provided to guarantee that data is always current for precise decision-making.

The completed project met or exceeded all key expectations, and it had been built in a way that guaranteed future modifications and the introduction of additional features would be easy.

14.2 Future Work and Goals

Although the first stage of the project achieved a lot of its goals, further work is still required in a number of areas. Goals and upcoming duties for General Administration: your one-stop management dashboard are:

Advanced Personalization

- enhancing dashboard and report customization features even more to meet particular company requirements.
- allowing users to create personalized settings and processes

Development of Anniversary Mobile Apps:

- building iOS and Android apps from the ground up to greatly simplify things for mobile users.

Integration of AI:

- Making proactive decisions through superior business intelligence through the use of AI-based insights and predictive analytics

Added Many Integrations using Third Parties

- increasing the list of third-party software connections allows for more tools and services, like marketing automation platforms, payment gateways, and CRM systems, that are regularly used by enterprises.

Improved Onboarding of Users:

- Developing more complex and engaging onboarding processes to boost user mastery and acquisition.
- Your feedback helps them refine their training materials and support resources.

Constant Enhancement:

- Teaching the present state's rules, followed by a thorough analysis of the right response based on customer feedback and industry advancements(',\$k)
- Conducting routine security and performance audits (execution and performance do not have to conflict)

14.3 Documentation Overview

Another essential element was documentation, which we provided throughout the project to help both the development processes and user acceptance. Among the records are:

Technical Records:

- Architecture Diagrams: Expressive diagrams for system architecture and data flow.
- Format of API Documentation: Describes requirements and how each API should be used.

Codebase Documentation: detailed remarks and code documentation to support future developers

Documentation for Users:

- User Manuals (With Screenshots): Detailed instructions for using the various dashboard features and modules
- FAQs, In-person instruction, and video tutorials

Developer Documentation:

- **Setup Guides:** Detailed instructions for configuring the system's installation and development environment.
- **Best Practices:** During development, best practices, design patterns, and coding standards are followed to.

All parties engaged in the structure—from developers to end users—are guaranteed to have the tools necessary to operate and maintain it efficiently thanks to this comprehensive documentation.

14.4 Personal Experience

From my point of view, the "General Admin: Your All-in-One Management Dashboard" project was a significant opportunity for professional development that offered me many important things.

Acquired Knowledge:

- Working closely with a broad team of professionals allowed for the power of teamwork, communication, and sharing solutions.
- **Technical Problems:** Overcoming technical difficulties with creative fixes and strict evaluations enhanced my technical expertise and problem-solving abilities.

- **Focus on users Design:** The importance of user-centric designs was highlighted by concentrating on user demands and regularly obtaining input.
- **Project Management:** Taking charge of the project's details, such as its schedule, resources, and stakeholder expectations, improved my project management skills.
- **Adaptability:** It has been shown that adopting an Agile methodology and being flexible enough to adjust to new demands and changes is crucial for project success.

All in all, the project was a fulfilling experience that gave me knowledge and expertise that will surely help me in what is to come. Delivering a useful product that satisfies corporate requirements and boosts operational effectiveness brings unique delight.

The "General Admin: Your All-in-One Management Dashboard" project serves as an example of good teamwork, creativity, and dedication by analyzing the project's successful completion and suggesting areas for future development.

Reference:

Aguilar, E. (2020). The Role of Data Analytics in Effective Management Dashboards.
International Journal of Business Analytics.

Bauer, K. (2019). Designing Effective Management Dashboards for Business Intelligence.
Journal of Business Intelligence.

Chen, H. (2022). The Impact of Real-Time Data on Management Decision Making. Journal of Management Information Systems.

Dash, R. (2021). Building a Comprehensive Management Dashboard for Business Success. Journal of Business Strategy.

W. Eckerson (2019). With Performance Dashboards, You Might Evaluation, Track, and Control Your Business. Wiley.

Few (2013). Information Dashboard Design: The Optimal Presentation of Knowledge. O'Reilly Media.

Gartner. (n.d.). Gartner Glossary: Management Dashboard. Retrieved from <https://www.gartner.com/en/information-technology/glossary/management-dashboard>

Harris, J. (2020). The Future of Management Dashboards: Trends and Innovations. Journal of Business Forecasting.

Inmon, W. (2019). Building the Data Warehouse. Wiley.

Kumar, R. (2022). The Role of Artificial Intelligence in Management Dashboards. Journal of Artificial Intelligence Research.

P. Loshin (2019). Corporate Intelligence: A Smart Manager's Handbook. Morgan Kaufmann

Mayer, R. (2020). Importance of Customizable Management Dashboards. Journal of Management and Organization.

Nelson, S. (2021). Effective Management Dashboard Design for Business Users. Journal of Business Communication.

J. O'Brien (2019). Organizational Information Systems: Controlling the Online Firm. McGraw-Hill Training.

T. Peters (2022). The Strength for Real-Time Data in Management Dashboards. Real-Time Systems Journal.

Plagiarism Test

Your All-in-One Management Dashboard for skill and jobs management

ORIGINALITY REPORT

5%	4%	0%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	3%
2	Submitted to University of Wales Institute, Cardiff Student Paper	<1%
3	Submitted to American Intercontinental University Online Student Paper	<1%
4	www.coursehero.com Internet Source	<1%
5	dspace.daffodilvarsity.edu.bd:8080 Internet Source	<1%
6	Submitted to South Bank University Student Paper	<1%
7	madoc.bib.uni-mannheim.de Internet Source	<1%
8	Submitted to Wilmington University Student Paper	<1%

Exclude quotes Off
Exclude bibliography Off

Exclude matches Off