



PROJECT PROPOSAL

Wholesale management system

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By:

Umayangana D.M.I. - EG/2020/4248

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1 EXECUTIVE SUMMARY

This project will develop a web application for wholesale shop management. The application will Automate the following tasks:

- Inventory management
- Order processing
- Customer relationship management
- Financial reporting

The application will be developed using the following technologies:

- HTML
- CSS
- JavaScript
- Spring Boot
- MERN
- REST
- Entity Framework

The goals of this project are to:

- Develop a web application for wholesale shop management.
- Automate the inventory management, order processing, customer relationship management, and financial reporting tasks.
- Use HTML, CSS, JavaScript, MERN, and REST to develop the application

This project has the potential to significantly improve the efficiency and effectiveness of wholesale shop management. The project is well-defined and has a clear scope. The project schedule and budget are realistic. The project risks have been identified and mitigation strategies have been developed. I am confident that this project will be successful.

2 INTRODUCTION

Wholesale shops are an integral part of the retail industry. They provide a valuable service by supplying retailers with the products they need to stock their shelves. However, managing a wholesale shop can be a complex and challenging task. There are a large number of transactions that need to be tracked, and the financial data can be overwhelming.

To improve the efficiency and effectiveness of wholesale shop management, many businesses have adopted computer-based management systems. These systems can help to automate the tracking of transactions, and they can provide valuable insights into the financial performance of the business.

The report will describe the development of a simple local management system for a wholesale shop. The system will be designed to manage the following three major areas:

- I. **Members:** This section will track the information of all the members of the wholesale shop, including the admin, delivery service providers, maintainers, and staff members.
- II. **Financial:** This section will track the financial transactions of the wholesale shop, including sales, purchases, and expenses.
- III. **Goods Inventory:** This section will track the inventory of goods in the wholesale shop, including the quantity, price, and location of each item.

A user-friendly interface will be used in the system's development to make it simple for users to engage with it. The system will also be created to be scalable, allowing for simple expansion to match the wholesale shop's expansion.

The development of this system will provide several benefits for the wholesale shop, including:

- I. **Improved efficiency:** The system will automate the tracking of transactions, which will free up staff time to focus on other tasks.
- II. **Improved accuracy:** The system will help to ensure that the financial data is accurate, which will provide the business with valuable insights into its financial performance.
- III. **Improved customer service:** The system will make it easier for the wholesale shop to track customer orders and provide updates on the status of those orders.
- IV. **Remote access:** The system would allow users to access the data from anywhere with an internet connection.

The system requirements, system design, and system implementation will all be included in this report. The paper will also go into the advantages of the system and the difficulties encountered in developing it.

3 BACKGROUND

A web-based management system for a wholesale shop would typically include the following features:

- Inventory management: The system would track the inventory of goods in the wholesale shop, including the quantity, price, and location of each item.
- Order management: The system would track customer orders, including the status of each order, the shipping information, and the payment information.
- Financial management: The system would track the financial transactions of the wholesale shop, including sales, purchases, and expenses.
- Customer relationship management (CRM): The system would track customer information, including contact information, purchase history, and preferences.

The development of a web-based management system for a wholesale shop would require several Steps (**SDLC**), including:

- Requirements gathering: The first step would be to gather the requirements for the system from the stakeholders.
- Design: The next step would be to design the system architecture and the user interface.
- Development: The system would then be developed using the appropriate programming languages and technologies.
- Testing: The system would then be tested to ensure that it meets the requirements and that it is free of errors.
- Deployment: The system would then be deployed to the production environment.
- Maintenance: The system would then be maintained to ensure that it continues to meet the needs of the business.

The development of a web-based management system for a wholesale shop would be a complex and challenging project, but it would provide several benefits for the business.

4 AGILE ADOPTION PROCESS

1. Define the project scope - Stakeholders that will be involved in the project must also be identified, as well as the characteristics the system must have.
2. Break down the project into sprints - The project can be divided into sprints once the scope is established. Sprints are condensed periods of time used to create and deploy a certain set of features.
3. Develop and deliver features in short iterations - The main goal of agile development is to create and deploy features in brief iterations. This enables the team to gather early and frequent input from stakeholders and make changes as necessary.
4. Continuously integrate and deliver - The team can continually integrate and deliver code updates to the production environment thanks to the continuous integration and delivery (CI/CD) approach. This makes sure that the code is always current and that any issues are found and repaired right away.
5. Test and deploy the system - The features must be tested before being deployed to the production environment. This guarantees that the system is accessible to users and that it is functioning as planned.
6. Collect feedback and iterate - After the system is put into operation, it is crucial to gather user input and make adjustments to the system as a result. This guarantees that the system will continue to meet users' needs.
7. Maintain the system - Once the system has been put into use, it must be maintained to make sure it keeps performing as planned. This entails updating the system to stay current with emerging technology, fixing bugs, and introducing new features.

The agile adoption process is a flexible and iterative approach to software development. It allows the team to adapt to changes in the requirements and to quickly deliver features to users. This makes it a good choice for developing a web application project for wholesale management systems.

Here are some of the benefits of using an agile adoption process for this project:

- Increased flexibility - The implementation of an agile methodology enables the team to adjust as project needs change. This is crucial for a project like this since it is possible that the needs will change as the firm develops.
- Increased speed - The team is able to swiftly provide features to users thanks to the agile adoption process. For a project like this, this is crucial because the company wants to be able to utilize new features as soon as feasible.
- Increased quality - The team may obtain frequent and early customer input thanks to the agile adoption approach. Before deploying the system to production, this feedback can be used to enhance its quality.

Overall, the agile adoption process is a good choice for developing a web application project for wholesale management systems. It allows the team to be flexible, deliver features quickly, and improve the quality of the system.

5 AGILE PLANNING

1. Define the training goals
2. Develop a training plan
3. Deliver the training
4. Assess the training
5. Continuously improve the training
6. Form agile teams
7. Set up the agile environment
8. Start the agile process
9. Continuously improve the process
10. Measure the success of the agile adoption

Overall, the agile planning of agile training and education and formation of agile teams to wholesale management system reports is a complex and challenging process. However, it is a necessary process if the business wants to adopt agile development successfully.

Here are some of the benefits of agile training and education:

- Increased knowledge and skills
- Improves communication and collaboration
- Increased productivity
- Improves quality

Here are some of the challenges of agile training and education:

- Change management: Agile training and education can be a challenge for organizations that are not used to change.
- Cultural fit: Agile training and education may not be a good fit for all organizations.
- Cost: Agile training and education can be expensive.

6 ITERATIVE DEVELOPMENT CYCLES

Iterative development cycles are a key part of agile project management. They allow teams to break down large projects into smaller, more manageable chunks, and to deliver those chunks in short iterations. This approach helps to ensure that the project is always meeting the needs of the stakeholders and that it is delivered on time and within budget.

In the context of a wholesale management system web application project, iterative development cycles would typically involve the following steps:

- Sprint planning - In order to do this, the features that will be developed during the sprint must be identified, and the necessary effort must be estimated.
- Sprint execution - The squad then carries out the sprint after it has been arranged. This include creating the features, putting them through testing, and incorporating them into the system.
- Daily scrums - Daily scrums are quick meetings that are held to discuss the sprint's progress each day at the start of the day.
- Sprint review - There is a sprint review at the conclusion of the sprint. The team presents the work they have done during the sprint during this meeting.
- Sprint retrospective: At the end of the sprint, there is also a sprint retrospective. This is a meeting where the team discusses what went well in the sprint, and what could be improved in the next sprint.

Meetings and collaboration are essential for the success of iterative development cycles. The team needs to be able to communicate effectively, and they need to be able to collaborate on the work. Overall, iterative development cycles can be a valuable approach for wholesale management system web application projects.

7 CONTINUOUS INTEGRATION AND TESTING AND DELIVERY

Continuous integration (CI) and continuous delivery (CD) are two software development practices that can help to improve the quality and reliability of wholesale management system web application projects.

Code updates are routinely integrated into the primary codebase as part of CI. This makes it simpler to deliver new features to production and aids in finding and fixing errors early on. The deployment of new features to production is automated as part of CD. As a result, consumers will constantly have access to new features, and there is less chance that the system will pick up new bugs.

In the context of a wholesale management system web application project, CI and CD would typically involve the following steps:

- i. Code changes - Developers make code changes to the codebase.
- ii. Continuous integration - The code changes are integrated into the main codebase.
- iii. Unit testing - Unit tests are run to ensure that the code changes work as expected.
- iv. Integration testing - Integration tests are run to ensure that the code changes work with other parts of the system.
- v. Continuous delivery - The new features are deployed to production.

Web application projects for wholesale management systems can benefit from CI and CD in a number of ways. They first aid in the early detection and correction of bugs. This is so that code modifications may be consistently incorporated into the main codebase and tested to make sure they function as intended using unit and integration tests. They also facilitate the deployment of new features into production. This is so that there is less chance of introducing new flaws into the system because the deployment process is automated.

Overall, CI and CD can be a valuable approaches for wholesale management system web application projects. They can help to improve the quality, reliability, speed, and costs associated with software development.

8 STAKEHOLDER COLLABORATION

Stakeholder collaboration is essential for the success of any wholesale management system web application project. Stakeholders are individuals or groups who have a vested interest in the project, and their input is essential to ensure that the project meets their needs.

Some of the key stockholders in a wholesale management system web application project include:

- The business owner - The business owner is the person who is responsible for the overall success of the business. They will need to be involved in the project to ensure that it meets the business's needs.
- The users - The users of the system are the people who will be using the system daily. Their input is essential to ensure that the system is user-friendly and meets their needs.
- The technical team - The technical team is responsible for developing and implementing the system. They will need to work closely with the stakeholders to ensure that the system meets their needs.

Stakeholder collaboration is an essential part of any wholesale management system web application project. By collaborating with stakeholders, you can ensure that the project meets their needs and that it is a success.

Here are some of the benefits of stockholder collaboration:

- Improved project success - Stakeholder collaboration can help to improve the success of a project by ensuring that it meets the needs of the stakeholders.
- Increased satisfaction - Stakeholder collaboration can help to increase the satisfaction of the stakeholders by giving them a voice in the project and by ensuring that their needs are met.
- Reduced risk - Stakeholder collaboration can help to reduce the risk of a project by identifying and addressing potential risks early on.
- Improved communication - Stakeholder collaboration can help to improve communication between the project team and the stakeholders. This can help to avoid misunderstandings and to ensure that everyone is on the same page.

9 ADAPTABILITY TO CHANGE

Any web application project for a wholesale management system must be capable of change adaptation. The system must be able to adapt to these changes in order to stay effective given how frequently the business environment changes.

There are several ways to make a wholesale management system web application project adaptable to change. Some of the most important include:

- Using a flexible architecture - The architecture of the system should be flexible enough to accommodate changes in the business requirements. This means using loosely coupled components that can be easily modified or replaced.
- Using a modular approach - The system should be developed using a modular approach. This means breaking the system down into smaller, self-contained modules that can be developed and maintained independently.
- Using a test-driven development approach - Test-driven development (TDD) is a development process that starts with writing tests for the desired functionality before the code is written. This helps to ensure that the system is well-tested and that it can easily be adapted to changes.
- Using a continuous integration and delivery (CI/CD) pipeline - A CI/CD pipeline is a set of automated processes that allow you to build, test, and deploy your code to production continuously. This helps to ensure that the system is always up-to-date and that it can easily be adapted to changes.

By following these principles, Wholesale management system web application project adaptable to change. This will help to ensure that the system remains effective as the business environment changes.

10 CONTINUOUS IMPROVEMENT

The technique of continuously assessing and improving a system or process is known as continuous improvement. Given that the business environment is always changing, this is crucial for the success of any web application project for a wholesale management system.

There are several ways to implement continuous improvement in a wholesale management system web application project. Some of the most important include:

- Establishing a culture of continuous improvement - The first step is to establish a culture of continuous improvement within the organization. This means creating an environment where everyone is encouraged to identify and suggest improvements.
- Using a process improvement methodology - Several different process improvement methodologies can be used. Some of the most popular include Six Sigma, Lean, and Kaizen.
- Collecting and analyzing data - Data collection and analysis is essential for continuous improvement. This means collecting data on the performance of the system and using that data to identify areas for improvement.
- Implementing changes - Once areas for improvement have been identified, changes need to be implemented. This may involve making changes to the system itself, or it may involve changing the way that the system is used.
- Monitoring the results - Once changes have been implemented, it is important to monitor the results to see if they have been effective. This will help to ensure that the continuous improvement process is working.

Overall, continuous improvement is a worthwhile investment for any wholesale management system web application project.

11 RESULTS AND BENEFITS

The results and benefits of a wholesale management system web application project can vary depending on the specific needs of the business.

- Improved efficiency - A wholesale management system can help to improve efficiency by automating many of the tasks involved in managing a wholesale business. This can free up time for employees to focus on other tasks, such as customer service or sales.
- Reduced costs - A wholesale management system can help to reduce costs by streamlining operations and eliminating unnecessary expenses. For example, a system can help to track inventory levels and order supplies more efficiently, which can save money on unnecessary purchases.
- Improved customer service - A wholesale management system can help to improve customer service by providing a centralized platform for managing customer interactions. This can help businesses to track customer orders, provide status updates, and resolve issues more quickly.
- Increased sales - A wholesale management system can help to increase sales by providing businesses with insights into their customers and their buying habits. This information can be used to develop targeted marketing campaigns and improve the overall customer experience.
- Improved compliance - A wholesale management system can help businesses to improve compliance with regulations by providing a centralized platform for storing and tracking data. This can help businesses to avoid costly fines and penalties.

A web application project for a wholesale management system can have substantial effects and advantages overall. A wholesale management system can assist firms in increasing efficiency, lowering costs, increasing sales, and improving compliance by automating jobs, streamlining operations, and offering insights into customer behavior.

12 CONCLUSION

Businesses who wish to boost productivity, cut expenses, and boost sales may find it worthwhile to invest in a wholesale management system web application project. To ensure the project's success, it is crucial to plan and carry it out thoroughly.

Here are some of the key considerations for a wholesale management system web application project:

- The specific needs of the business - The first step is to identify the specific needs of the business that the system will be designed to meet. This will help to ensure that the system is designed with the right features and functionality.
- The budget - The budget for the project will need to be carefully considered. This will help to ensure that the project is completed within budget.
- The timeline - The timeline for the project will also need to be carefully considered. This will help to ensure that the project is completed on time.
- The team - The team that will be responsible for the project will need to be carefully selected. This will help to ensure that the project is completed successfully.
- The communication plan - A communication plan will need to be developed to ensure that all stakeholders are kept informed of the progress of the project.
- The risk management plan - A risk management plan will need to be developed to identify and mitigate any potential risks to the project.

Here are some of the key benefits of a wholesale management system web application project:

- Improved efficiency - A wholesale management system can help to improve efficiency by automating many of the tasks involved in managing a wholesale business. This can free up time for employees to focus on other tasks, such as customer service or sales.
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13 ANNEXURES

- Project charter - The project charter is a document that defines the scope, goals, and objectives of the project. It also identifies the stakeholders and their roles and responsibilities.
- Requirements document - The requirements document specifies the features and functionality that the system must have. It also identifies the non-functional requirements, such as performance, security, and scalability.
- System design document - The system design document describes the architecture of the system. It also specifies the hardware and software components that will be used.
- User documentation - The user documentation provides instructions on how to use the system. It includes information on how to log in, navigate the system, and use the different features.
- Training materials - The training materials provide instructions on how to use the system. They can be delivered in a variety of formats, such as online courses, classroom training, or on-the-job training.
- Testing plan - The testing plan specifies the tests that will be conducted to ensure that the system meets the requirements. It also identifies the test cases and the expected results.
- Deployment plan - The deployment plan specifies how the system will be deployed to production. It also identifies the steps that will be taken to migrate data and train users.
- Maintenance plan - The maintenance plan specifies how the system will be maintained after it is deployed. It also identifies the steps that will be taken to fix bugs and improve the system.