**COMP[1682] Project Proposal**

**[Management system for selling electronic equipment]**

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**s1 Overview**

The electronic sales management website project was initiated with the goal of solving challenges caused by the Covid-19 epidemic and economic recession. The pandemic has created a major shift in the way consumers shop, from in-person to online. This places a growing need for reliable and flexible online shopping platforms.

In addition, the economic downturn also increases pressure on businesses to optimize business processes and reduce costs. The project aims to meet this need for QT Store stores by providing effective management tools and flexible business solutions, helping businesses optimize operations and enhance competitiveness.

The electronic sales management website project is implemented by building the website using the PHP programming language, one of the most popular and powerful languages in developing web applications. This choice helps ensure flexibility, scalability, and security for the project.

Key features of the website include:

Product management: Allows businesses to easily add, modify and delete products. Provides features such as image management, descriptions, and pricing.

Order management: Display detailed information about orders such as status, customer information and products ordered. Supports order processing and automatic order status updates.

Customer management: Store customer information, including personal information and purchase history. Allows sending notifications and promotions to customers automatically.

Account management: Allows users to register, log in and manage personal information. Users can conveniently update their personal information, shipping address, and payment information.

Customer care chatbot: Integrate smart chatbot to support customers during the shopping process and answer frequently asked questions. Chatbots can automatically answer questions about products, services, and return policies. If necessary, the chatbot can redirect users to online support staff.

**2 Aim**  
The aim of this project is to develop a comprehensive electronic device sales management system that integrates inventory management, customer relationship management, and advanced analytics capabilities to optimize sales processes and enhance customer satisfaction in the electronics industry.

**3 Objectives**

E-commerce activities are growing in diversity and complexity. Consumers have a significant role in the e-commerce industry through shopping online or via social media. This endeavor is growing in popularity all over the planet. Additionally, it is popular in Vietnam. Online shopping is considered an instance of e-commerce that allows consumers to purchase goods or services directly from vendors via the internet. Particularly during the complicated COVID-19 epidemic, online shopping is considered a form of shopping that promotes safety for consumers and fulfills the demands of life and daily tasks. Consumers have the ability to participate in the purchasing of goods online through numerous different electronic methods with numerous different sales channels from vendors. Understanding the current general climate, small businesses must alter the typical course of their business, otherwise they will have a loss of customers and the potential to close down their business. As a result, companies must alter themselves and utilize new technologies in sales, particularly in the digital realm of business.

The TP Store is a technology electronics store that came into being because of the Covid-19 pandemic and economic recession. The epidemic has produced a huge shift in consumer buying habits, with shoppers now choosing to buy products online rather than go in-person. This presents an emerging demand for secure and user-friendly digital marketplaces. Furthermore, the economic decline also raises challenges for companies to streamline business operations and minimize costs. Considering these problems that TP Store encountered, it decided to create an e-commerce website for its store selling electronic goods. The aim of this project is to address the demands of TP Store retailers through the provision of powerful management software and versatile business solutions, which will assist these enterprises in streamlining their operations while fostering their market standing.

Overall, the project will be broken down into 3 main parts. Initially, it will focus on conducting research and developing an electronic sales management website with primary functionalities in PHP language such as product, order, and customer management. Subsequently, we will move to higher-level related information data storage and management functions, ensuring the security and stability of the database. Finally, it is planned to incorporate an uncomplicated chatbot to facilitate customer support issues and address common inquiries. The task will be undertaken in cyclic phases to guarantee cohesiveness and comprehensive development of the project so that all customers’ demands can be handled promptly and effectively.

Presented in this research document is a comprehensive analysis advocating for the implementation of an independent page system for TP Store to facilitate the efficient sale of electronic products. The report delves into the drawbacks associated with utilizing expansive sales management platforms and highlights the advantages of possessing a personalized system that offers complete control over customer data. Furthermore, the report outlines the step-by-step process of developing such a system, encompassing requirements analysis, design, implementation, testing, deployment, and ongoing system maintenance.

**3.1 Product management function**

3.1.1. View product list: Displays a list of all products being sold on the website, including images, product names, selling prices, and inventory quantity.

3.1.2. Product search: Allows admin to search for products by name, product code, product category.

3.1.3. Filter products: Allows admins to filter products by criteria such as selling price, inventory quantity, and brand.

3.1.4. Add new products: Allows admins to add new products to the system, including entering product information such as name, description, image, selling price, inventory quantity and selecting the appropriate product category.

3.1.5. Edit product information: Allows admin to edit product information such as name, description, image, selling price, inventory quantity.

3.1.6. Delete product: Allows admin to delete product from the system.

**3.2 Customer Management function**

3.2.1 View customer list: Displays a list of all registered customers on the website, including personal information such as name, email, phone number, address, purchase history

3.2.2 Search for customers: Allows admin to search for customers by name, email, phone number, or customer ID.

3.2.3 Edit customer information: Allows admin to edit customer personal information such as name, email, phone number, address.

3.2.4 Delete customer: Allows admin to delete customer from the system.

**3.3 Account Management function**

3.3.1 List Accounts:

- Displays a list of all active Accounts on the system.

- Search Account by name, email, phone number, or Account ID.

- View detailed information of a specific Account, including contact information and activity history.

3.3.2 Account authorization:

- Grant different permissions to Accounts, such as product management rights, order management rights.

- Create an Account group to divide management powers between Accounts.

**3.4 Order management**

3.4.1 Order list: Displays a list of all orders placed on the system, including customer information, product information, order value, order status.

3.4.2 Search for orders: Allows admin to search for orders by order code, customer name, phone number.

3.4.3 View order details: Display detailed information of a specific order, including 6l order processing history, delivery information.

3.4.4 Update order status: Allows admin to update order status (processing, delivered, paid

3.4.5 Order processing: Allows admin to process customer requests related to orders (cancel orders, return goods).

**3.5 Chatbot**

3.5.1 Create chatbot: Allows admins to create chatbots to support customers in placing orders and answering questions.

3.5.2 Chatbot configuration: Allows admin to configure chatbot information, such as chatbot name, avatar, language.

3.5.3 Chatbot training: Allows admins to train chatbots so that they can understand and answer customer questions accurately.

3.5.4 Track chatbot performance: Allows admins to track chatbot performance, such as number of interacting customers, number of orders placed via chatbot.

**3.6 Project Framework or Any of Methodolory**

With the mission of creating a perfect platform to manage every aspect of selling electronics, this system has combined the power of PHP with a powerful Framework, helping to create a product that excels in functionality. capacity and performance.

The system provides basic features such as product management, customer management, order management, and many more, all designed to simplify business processes and optimize them. work performance.

With the flexibility of the PHP programming language, the system can be customized to specific needs, ensuring that it accurately reflects business processes and meets any special requirements.

**4 Legal, Social, Ethical and Professional**

Developing and implementing an Electronic Sales Management System requires a comprehensive examination of the legal, social, ethical and professional factors involved. As advances in technology continue to emerge, carefully evaluating their social impacts and ensuring their legal and ethical use is imperative. Neglecting to address these concerns can lead to adverse outcomes for both the store and the customer. Therefore, understanding the legal and ethical parameters governing the electronic device sales system is of particular importance for the TP Store system.

**4.1 Legal**

**Legal issues in e-commerce:**

Data security: The General Data Protection Regulation (GDPR), implemented by the European Union, has worldwide impact. It applies to all e-commerce businesses that process personal information of individuals residing in the EU. Compliance with GDPR principles requires explicit consent for data collection, granting data subjects the right to access and delete their data, and implementing strong data security protocols strong.

CCPA, also known as the California Consumer Privacy Act, establishes strict data privacy guidelines in businesses operating in California. It grants consumers the privilege of understanding the personal information being collected and transacted, while also giving them the option to opt-out and request deletion of their data.

Privacy policy :A privacy policy for an e-commerce website is a concise document that describes how the website gathers, uses, protects, and distributes users' and customers' personal information. It describes the site's commitment to user privacy and openness in data processing procedures.

Consumer protection: Consumer protection plays a key role in ensuring the legality of e-commerce. Although laws and regulations may vary from country to country, some principles remain consistent.

Transparency: E-commerce businesses must provide clear and accurate information about their products or services. This includes pricing, refund policy, and terms and conditions.

Payment Security: Ensuring secure payment processing is extremely important. E-commerce platforms must comply with the Payment Card Industry Data Security Standard (PCI DSS) requirements to protect consumer financial information.

Intellectual property: Intellectual property (IP) issues are becoming more prevalent in the digital world, where content and ideas spread rapidly. E-commerce businesses need to be vigilant to avoid violating others' intellectual property rights and protect their own intellectual property rights.

* Copyright infringement:Improper use of copyrighted materials such as images, text or music may have legal consequences. E-commerce platforms must comply with copyright laws and ensure appropriate licensing is in place.
* Trademark violation:Businesses need to conduct careful checks to ensure that their brand name and logo do not infringe on existing trademarks. They should also protect their trademarks to prevent unauthorized use by others.
* Counterfeit and imitation goods:E-commerce platforms face strict scrutiny to prevent the sale of fake or counterfeit goods. Implementing strict measures to detect and remove such products is extremely important to avoid legal problems.

Regulatory and tax compliance: Adjusting the legal landscape is another important legal aspect in the e-commerce sector. It includes compliance with a variety of laws and standards, including: business licenses, sales taxes, and import and export laws.

(ironclad, 2024)

4.2 **Social**

**Security and Privacy:** One of the biggest concerns for consumers is the security of their personal information and financial data when shopping online. Data breaches and hacking incidents can expose sensitive information, leading to identity theft and financial loss.

**Consumer Protection:** The digital marketplace can be a breeding ground for fraud and scams. Deceptive advertising, fake products, and misleading seller information can make it difficult for consumers to make informed purchasing decisions.

**Digital Divide:** Not everyone has equal access to the internet and the technology required for online shopping. This digital divide can exacerbate social inequalities and limit the economic opportunities available to certain segments of the population.

**Labor Conditions:** The rise of e-commerce has been linked to the exploitation of workers in the supply chain. Warehouse workers often face intense pressure to meet high order fulfillment quotas, which can lead to unsafe working conditions and unfair labor practices.

4.3 **Ethical**

**Piracy:** Collecting and storing customer data is considered one of the most important ethical challenges in e-commerce. According to a study by Harvard Business Review, "76% of surveyed customers expressed discomfort with retailers collecting personal information without their consent" (HBR, 2018). . This highlights the importance of businesses having appropriate security measures in place to protect customer information and comply with privacy regulations.

**Data Security:** Data security represents a crucial ethical concern within the realm of e-commerce. With the growing trend of online shopping, customers entrust businesses with safeguarding their financial details. The looming threat of fraud and data breaches underscores the importance of businesses implementing necessary precautions to protect customer information. These measures encompass encrypting data, deploying two-factor authentication, and actively monitoring for any suspicious activities.

**Intellectual Property Rights:** When conducting business online, intellectual property rights are a significant legal topic that needs to be taken into account. When selling goods or services online, companies must make sure they are not violating the original works of authors and artists, which are protected by copyright and trademark laws.

**Unfair Business Practices:** Engaging in e-commerce also raises ethical concerns about unfair commercial practices. Bait-and-switch techniques, fraudulent claims, and misleading advertising are a few examples of these. Providing accurate information about their products and services and acting in a fair and honest manner towards clients are vital for businesses.

(Sharer, 2023)

4.4 **Professional**

**Professional Competence:**

* Technical Skills: Understanding of e-commerce platforms, marketing automation tools, data analytics, SEO principles, and cybersecurity measures.
* Product Knowledge: Deep understanding of the products being sold, including specifications, features, and potential customer needs.
* Customer Service: Ability to handle customer inquiries effectively through online channels, troubleshoot issues, and provide excellent after-sales support.

**Professional Conduct:**

* Data Privacy: Ensuring customer data is protected and adhering to relevant data privacy regulations.
* Intellectual Property: Respecting copyright and trademark laws, ensuring products and content don't infringe on others' rights.
* Transparency and Honesty: Providing accurate product descriptions, pricing information, and clear return policies. Avoiding misleading or deceptive advertising practices.

**Professional Responsibility:**

* Fulfillment and Logistics: Ensuring timely product delivery and managing returns effectively.
* Financial Management: Maintaining accurate financial records, adhering to tax regulations, and managing cash flow effectively.
* Cybersecurity: Implementing security measures to protect customer data and website integrity from cyberattacks.

**Professional Continuous Learning:**

* Staying Current with Technology: Keeping up-to-date with the latest e-commerce trends, social media platforms, and marketing strategies in the ever-evolving digital landscape.
* Compliance Updates: Staying informed of changes in regulations related to online sales, data privacy, and consumer protection.
* Industry Knowledge: Understanding market trends, competitor analysis, and customer behavior within the specific e-commerce niche.

(Lukic, 2024)

**5 Planning (see appendix A)**

**5.1 Schedule**

**Start date:** 10/03/2024.

**End date:** 15/08/2024.

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| --- | --- | --- | --- |
| No | Task | Detail | Number of days |
| 1 | Research developing Management system for selling electronic equipment and realated works | Write a proposal to research the project Management system for selling electronic equipment and find solutions to develop and solve related problems. | 15 |
| 2 | Search for information about electronic equipment sales, select technology to develop for the project | Create a document that lists the tools and methods used to develop the project | 30 |
| 3 | Design software requirements specification documents for the project | Create software requirements specification documents for the project report and Design database for electronic equipment sales management system.  User interface design for electronic equipment sales management system.  Write instructions for using the electronic equipment sales management system. | 30 |
| 4 | Implement the project with the basic requirements set out | Write source code for the electronic equipment sales management system and documents describing that source code | 60 |
| 5 | System testing | Identify test cases for electronic device sales management system.  Perform testing of electronic equipment sales management system.  Record test results and fix system errors. | 10 |
| 6 | Write a report for the project Management system for selling electronic equipment | Write a project summary report, including goals, results achieved, lessons learned and suggestions for improvement. | 15 |

**5.2 Approach**

**6 Initial References**

# References

ironclad. (2024, January 7). *Legal Issues in E-Commerce: A Beginner’s Guide*. Retrieved from ironclad: https://ironcladapp.com/journal/contract-management/legal-issues-in-e-commerce/

Lukic, L. ( 2024, February 6). *17 Challenges Of eCommerce To Prepare For & How To Solve Them*. Retrieved from digitalsilk: https://www.digitalsilk.com/digital-trends/challenges-of-ecommerce/

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