Application of Open Source Magento for Building a Website for Business APL

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***Abstract*—This thesis explores the application of open-source Magento to build a website for Business APL. It provides an overview of e-commerce and Magento, followed by a detailed design and implementation of the website, including database design and various web pages. The study covers the development of a user-friendly interface and well-functioning modules that meet the functional requirements. Additional modules were developed for Magento, which are now used by Business APL. The research highlights the benefits of using open-source software in e-commerce and the challenges faced during the implementation process.**

***Index Terms*—e-commerce, Magento, website, database, module**

I. Introduction

The thesis begins with an overview of e-commerce and open-source Magento, emphasizing the importance of e-commerce in today's digital age. The study aims to develop a website for Business APL using Magento, highlighting the benefits of open-source software in e-commerce. The introduction covers the evolution of e-commerce, its various forms, and the advantages it offers to businesses. It also discusses the history and structure of Magento, the reasons for choosing Magento, and the management and functionalities it provides. The introduction concludes by noting the limitations of the study, such as the time and knowledge constraints faced by the researcher [1]. Published books on the methods and subject of this project provide context for this English summary [6], [7], [8].

II. Methods

The methods section covers the design and implementation of the website, including database design and the creation of various web pages such as the home page, product list, product details, shopping cart, payment, member registration, and admin pages. The research involved a thorough analysis of the current state of Business APL, identifying the system requirements. The design process included creating a functional hierarchy, data flow diagrams, and entity-relationship diagrams. The implementation phase involved coding the website using Magento, ensuring that all functionalities were well-integrated and user-friendly. The study also developed additional modules for Magento, which are now used by Business APL [1].

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III. Results

The results indicate that the developed website has a user-friendly interface and well-functioning modules that meet the functional requirements, including product listings, detailed product pages, shopping cart, payment, and admin functionalities. The website was successfully implemented, providing a seamless user experience. The additional modules developed for Magento have been integrated into the website and are now used by Business APL. The study also highlights the challenges faced during the implementation process, such as the need for continuous updates and maintenance to ensure the website's performance and security [1].

IV. Discussion

The discussion section reviews the findings, noting that the website developed using Magento meets the functional requirements and provides a user-friendly interface. Additional modules were developed for Magento, which are now used by Business APL. The study emphasizes the importance of choosing the right open-source platform for e-commerce and the benefits of customizing the platform to meet specific business needs. The discussion also addresses the limitations of the study, such as the time and knowledge constraints faced by the researcher, and suggests areas for future research, such as improving the website's performance and security [1].

V. Conclusion

The thesis concludes that the application of open-source Magento successfully built a website for Business APL, providing a user-friendly interface and well-functioning modules that meet the functional requirements. The study highlights the benefits of using open-source software in e-commerce and the challenges faced during the implementation process. The additional modules developed for Magento have been integrated into the website and are now used by Business APL. The research provides valuable insights into the application of open-source platforms in e-commerce and the importance of customizing these platforms to meet specific business needs [1].

References

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