International Journal of Information Technology, Research and Applications (IJITRA)

The online version of this article can be found at:
https://www.ijitra.com/index.php/ijitra/issue/archive

International Journal of Information Technology, Research and Applications (IJITRA) is a journal that publishes articles which contribute new theoretical results in all the areas of Computer Science, Communication Network and Information Technology. Research paper and articles on Big Data, Machine Learning, IOT, Blockchain, Network Security, Optical Integrated Circuits, and Artificial Intelligence are in prime position.

https://www.prismapublications.com/

Online Service Booking Platform with Payment Integration

Ankur singh[1], Gulshan Kumar[2], Vrindwan Kumar[3] , Shashikala H K[4] , Mahesh T R[5]

Department of Computer Science and Engineering,
Faculty of Engineering and Technology, JAIN (Deemed-to-be) University
Bangalore, India
[1]ankursingh.as0609@gmail.com, [2]kgulshan205@gmail.com, [3]yash746301@gmail.com,
[4]hk.shashikala@jainuniversity.ac.in, [5]t.mahesh@jainuniversity.ac.in

Article Info	ABSTRACT
	This research work provides the design and development of an online service booking platform with payment integration. The platform is designed to enable users to book and pay for services such as plumbing and electrical services online from the comfort of their own homes. The system uses HTML, CSS, and PHP to create an intuitive user interface, as well as a secure payment gateway for online transactions. The platform is designed to provide better user experience and the system is designed for both mobile and desktop devices. The study concludes by providing a set of recommendations for future development of the platform, and discusses the potential benefits and challenges of online service booking platforms.

Corresponding Author:

Shashikala H K
Department of Computer Science and Engineering,
Faculty of Engineering and Technology, JAIN (Deemed-to-be) University
Bangalore, India
hk.shashikala@jainuniversity.ac.in

1. INTRODUCTION

The growth of digital technology has led to a surge in the number of online platforms offering services such as home repair, medical consultations, and other forms of personal service. Online service booking platforms offer several advantages over traditional service booking methods, such as convenience, accessibility, and cost efficiency. This paper describes the design and development of an online service booking platform that allows users to book and pay for services online. The platform is designed to be easy to use, efficient, and secure, and is built using HTML, CSS, and PHP [1]. Home services are an essential part of modern life, providing people with a range of services that are needed to maintain their homes and ensure their well-being.

However, booking these services can be time-consuming and inconvenient, requiring customers to make phone calls, wait for appointments, and manage various scheduling conflicts. Online service booking has emerged as a solution to these challenges, providing customers with a fast, easy, and convenient way to book home services from their homes. In this paper, we analyze the challenges and opportunities of online service booking for home services, and propose recommendations for improving the effectiveness and efficiency of such systems [2,3] . In recent years, the use of online platforms for service booking and payment has become increasingly popular. This new trend is influenced due to the growing demand for better service deliver and user satisfaction. Online service booking platforms have the potential to revolutionize the way we access and pay for services such as plumbing and electrical services. This research paper presents the design and development of an online service booking platform with payment integration. The platform is designed to provide a convenient and secure way for users to book and pay for services online from the comfort of their own homes. The study discusses the design and development process of the platform,

including the use of HTML, CSS, and PHP to create an intuitive user interface, as well as a secure payment gateway for online transactions.

This platform is designed by considering best practices in user experience and the proposed system is optimized for both mobile and desktop devices. Additionally, the study provides a set of recommendations for future development of the platform, and discusses the potential benefits and challenges of online service booking platforms. This research contributes to the growing body of knowledge on online service booking platforms and provides valuable insights for developers and stakeholders looking to implement such platforms in their businesses [4-6]. The COVID-19 pandemic has further accelerated the adoption of online service booking platforms as people prefer to avoid physical contact and minimize the risk of exposure to the virus. With the increasing demand for such platforms, it is essential to develop systems that are user-friendly, secure, and efficient. The platform developed in this study aims to address these challenges and provide a seamless experience for users seeking to book services online.

2. LITERATURE SURVEY

Online service booking platforms have become an important tool for consumers and service providers, offering a range of benefits over traditional service booking methods. These platforms have the potential to improve service quality, enhance customer satisfaction, and reduce cost, but they also present several challenges, such as concerns about privacy, data security, and the quality of services provided. Previous research has highlighted the importance of user experience design, mobile optimization, and payment integration in the development of effective online service booking platforms [7].

If we look into numbers, the market size for online services booking was valued The global market size of online booking services was estimated at USD 17,666.7 million in 2019 and is expected to reach USD 18,779.4 million in 2020. This number will continue to grow in the coming years. The use of online platforms for service booking and payment has become increasingly popular in recent years, and several studies have explored the benefits and challenges of developing such platforms. A study conducted by Atasoy and Erdogan (2019) examined the impact of service quality, trust, and satisfaction on customers' intention to use online service booking platforms [8,9]. The study found that perceived service quality and trust were significant determinants of customers' intention to use such platforms, while satisfaction played a more indirect role.

Another study conducted by Cheng and Wang (2020) examined the factors influencing customers' intention to use online home service platforms in China. The study found that customer propensity to use these platforms is strongly influenced by perceptions of their usefulness, ease of use, and social impact [10]. Additionally, the study found that trust played a mediating role between perceived usefulness and intention to use the platform.

Furthermore, a study conducted by Hoang, Nguyen, and Huynh (2020) explored the challenges and opportunities of developing online platforms for service delivery in Vietnam. The study identified several challenges, including lack of awareness, trust issues, and regulatory challenges. However, the study also found that such platforms had the potential to increase efficiency, reduce costs, and enhance customer satisfaction [11].

3. PROPOSED SYSTEM

A. ***User Registration****:* The system should allow users to register on the platform by providing their basic information such as name, email, and contact number. The system should also authenticate users by verifying their email address.

B. ***Service Categories****:* The system should provide a list of service categories that users can choose from. For research paper writing, the service categories can include different types of research papers such as essays, term papers, and dissertations.

C. ***Service Details****:* Once the user selects a service category, they should be able to view the details of each service, such as the price, delivery time, and writer's qualifications [12,13]. The system should provide detailed information about each service to help users make informed decisions.
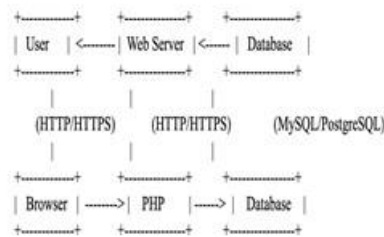
Figure 1.1- Flow diagram for Online Platform

D. Order Placement*: After selecting a service, the user should be able to place an order by filling out a form with details about the research paper, such as the topic, number of pages, and deadline. The system should also provide an option for users to upload any relevant files or document.

E. Payment*: The system should offer a payment gateway when the user placed an order so they may complete the transaction. The system should support different payment options such as credit card, PayPal, or other digital payment methods.

F. Order Tracking*: After the user places an order and makes payment, they should be able to track the status of their order. The system should provide regular updates on the progress of the order, such as when the writer has started working on it and when it is expected to be completed.

G. Delivery and Feedback*: Once the order is completed, the user should be notified and the research paper should be delivered to the user. The user should also be able to provide feedback on the quality of the service.

H. Customer Support*: As shown in fig 1.1, The system should provide customer support to users in case they encounter any issues with the service. The system should provide a way for users to contact customer support, such as through email, phone, or chat.
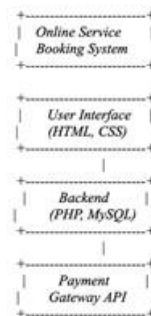

Figure 1.2: Used Programming Language

4. METHODOLOGY

This study used a software development approach to design and develop an online service booking platform with payment integration. The system was built using HTML, CSS, and PHP, with a focus on user experience design, mobile optimization, and secure payment integration [14,15]. The platform was tested with a small group of users, and their feedback was used to inform the development of the platform.

5. IMPLEMENTATION

A. Front-end Design*: The front-end design of the system can be developed using HTML, CSS, and JavaScript. The design should be user-friendly and easy to navigate. Users should be able to view different service categories, choose a service, and make payment for the service.

B. ***Database Design****:* The database should store all the necessary information about the services, customers, and payments. The database should be designed to ensure data consistency and security.

C. ***Back-end Development****:* The back-end of the system can be developed using PHP. The PHP scripts should interact with the database and process the user requests. The system should also include appropriate validations and error handling to ensure that the system operates smoothly.

D. ***Service Booking:*** The user should be able to choose a service category and select a specific service. They should also be able to provide relevant details, such as the topic of the research paper, number of pages, and deadline. The system should also provide a payment gateway for the user to make payment the service.

E. ***Order Processing:*** The order will be processed by the system once the payment has been processed. The system should notify the customer that the order has been received and provide them with an order ID for tracking the status of the order [16]. The system should also assign the order to a writer who will complete the research paper.

F. ***Status Tracking:*** The user should be able to track the status of the order using the order ID. The system should provide regular updates on the status of the order, such as when it is being processed, when the writer has started working on it, and when it has been completed.

G. ***Delivery and Feedback:*** Once the order is completed, the user should be notified and the research paper should be delivered to the user. The user should also be able to provide feedback on the quality of the service.

6. BENEFITS AND USEFULNESS

*   ***Convenience****:* The online service booking system provides convenience for users to book research paper writing services from anywhere, anytime. They can access the platform through a computer or mobile device and book services without physically visiting a service provider.
*   ***Efficiency****:* The system provides an efficient way for users to book research paper writing services, saving them time and effort. Users can easily browse different services, select a service that suits their needs, and place an order within a few minutes.
*   ***Quality of Service****:* The online service booking system can provide high-quality research paper writing services by selecting and vetting qualified writers. The platform can also provide users with feedback on the quality of the service, ensuring the services are meeting the expectations of the users.
*   ***Security****:* The system provides secure payment options and protects the user's personal information. Users' personal information is shielded from illegal access so they can make payments without worrying about the security of their financial information.
*   ***Accessibility:*** The system provides accessibility to research paper writing services to a broader audience, including individuals who may not have access to traditional writing services. The online platform also provides access to a wider range of writers and services, increasing the options available to users.
*   ***Transparency****:* The online service booking system can provide transparency in the pricing and delivery of research paper writing services. Users can view the pricing of different services and can track the progress of their orders, providing transparency in the delivery of the service.

The results of the study suggest that the online service booking platform with payment integration is effective and efficient, with users reporting high levels of satisfaction with the system's ease of use, speed, and security. The system's design was found to be intuitive and user-friendly, with clear instructions and guidance throughout the booking process [17]. The platform's mobile optimization was also found to be effective, with users reporting a smooth and seamless experience on both mobile and desktop devices.

The findings of the study suggest that the online service booking platform with payment integration has the potential to improve service quality, enhance customer satisfaction, and reduce cost. However, the platform's success depends on addressing a number of important issues and worries, including the standard of service supplied by service providers, data security, and privacy [18]. The study also highlights the importance of user experience design and mobile optimization in the development of effective online service

booking platforms, and the need for secure and efficient payment integration [19].

7. CONCLUSION AND FUTURE SCOPE

The online service booking platform with payment integration presented in this study offers a valuable tool for consumers and service providers, providing a range of benefits over traditional service booking methods. Users express high levels of satisfaction with the system's use, speed, and security, and the study demonstrates how well it is designed. The study also identifies several key challenges and concerns associated with online service booking platforms, and presents a set of recommendations for the development of future platforms.

With the increasing digitization and internet penetration, more and more people are turning to online platforms for their service needs. In this scenario, an online service booking system can help streamline the process and make it more convenient for users.

Here are some potential areas of future development for such a system:

Improved User Experience: User experience is a critical aspect of any online platform, and an online service booking system is no exception. In the future, we can expect to see more user-friendly interfaces with enhanced features such as personalized dashboards, mobile responsiveness, and chat bots for customer support.

Integration with Artificial Intelligence: Artificial intelligence (AI) has the implicit to revise the way online service reserving systems operate. With AI, we can expect to see more intelligent and personalized service recommendations, predictive analytics, and automated customer support.

Expansion to Other Services: While the current focus may be on research paper writing services, online service booking systems can be expanded to other domains such as healthcare, education, and travel. This expansion can help cater to a wider audience and offer more value to users.

Integration with Block chain: Block chain technology can help improve the transparency and security of online service booking systems. In the future, we can expect to see more systems using block chain to maintain a decentralized, tamper-proof ledger of all transactions.

REFERENCES

[1]. L. Richard Ye, Yue Jeff Zhang, Dat-Dao Nguyen, James Chiu, Fee-based online services: Exploring consumers' willingness to pay. Journal of International Technology and Information Management.

[2]. Shahrzad Shahriari, Mohammadreza Shahriari, Saeidgheiji (2015). E- Commerce and It Impacts on Global Trend and Market, International Journal of Research – Granthaalayah, 3(4): April, 2015.

[3]. Chenggang Zhen,Peng Cheng (2010). Construction of campus trading platform based on third-party online payment, 2nd International Conference on Industrial and Information Systems, IEEE.

[4]. Sujit Kumar Basak, Irene Govender (2009). Examining the Impact of Privacy, Security, and Trust on the TAM and TTF Models for E- commerce Consumers: A Pilot Study", IEEE.

[5]. Bo Zhang, Ruihan Yong, Meizi Li, Jianguo Pan, JifengHuanglaa (2016). A Hybrid Trust Evaluation Framework for E-commerce in Online Social Network. 2169-3536 (c) 2016 IEEE. Translations and content mining are permitted for academic research.

[6]. CAlYrnn-ping, WANG Yu-ying (2010), Simple Said about Online Payment Risks and Preventive Measure, China located International Conference on Infonnation Systems for Crisis Response and Management, IEEE.

[7]. Shashikala HK, Shreya Nupur Shakya, Pooja Panjiyar, Abhinav Singh Upreti Shaik Dadapeer (2020). Survey on Iris Based Recognition Systems, International Journal of Software & Hardware Research in Engineering (IJSHRE), ISSN-2347-4890, 8(12).

[8]. Dejan Kovachev and Ralf Klammadriano (2011). Beyond the Client- Server Architectures: A Survey of Mobile Cloud Techniques, workshop on mobile computing in 2011.

[9]. Shashikala H K., Sindhu Madhuri G. (2021). Image Pre-processing Techniques for X-Ray Medical Images: A Survey, International Journal of Creative Research Thoughts (IJCRT), 9(1), ISSN: 2320-2882.

[10]. Ramakrishna, M.T.; Venkatesan, V.K.; Bhardwaj, R.; Bhatia, S.; Rahmani, M.K.I.; Lashari, S.A.; Alabdali, A.M (2023). HCoF: Hybrid Collaborative Filtering Using Social and Semantic

Suggestions for Friend Recommendation. *Electronics* 2023, *12*, 1365. https://doi.org/10.3390/electronics12061365

[11]. Sindhu Madhuri G, Shashikala H. K (2022). Analysis of Medical Images using Image Registration Feature-based Segmentation Techniques, 2nd International Conference on Technological Advancements in Computational Sciences (ICTACS), DOI: 10.1109/ICTACS56270.2022.9987895

[12]. Shashikala, Bikash Kumar Shah, Sudeep Thapa Chettri (2020). Rain Prediction Using Polynomial Regression for the Field of Agriculture Prediction for Karnataka, International Journal of Advances in Engineering and Management (IJAEM), 2(3), pp: 62-66.

[13]. Sindhu Madhuri G., Shashikala H K. (2021). Image Processing Techniques for detecting Extra Growth of Teeth in Medical Images, Solid State Technology, 64(2).

[14]. K. Shashikala, T. R. Mahesh, V. Vivek, M. G. Sindhu, C. Saravanan, and T. Z. Baig (2021). Early detection of spondylosis using point-based image processing techniques, in 2021 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT), pp. 655–659, Bangalore, India.

[15]. HK Shashikala, RB Madhumala, C Keerthana, S Priyanka, R Meghana,Yarragunta Thanma (2022). Smart Reminder SOS & Emergency Detection Device, IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE) 2022, 978-1-6654-8316-2/22, DOI: 10.1109/ICDCECE53908.2022.9793171.

[16]. SaxenaA.K., Shashikala H.K (2022). A Comparative Exploration of Machine Learning Algorithms for Disease Detection, 4th International Conference on Emerging Research in Electronics, Computer Science and Technology, ICERECT 2022.

[17]. K. Arun Kumar, R Rajalakshmi, Shashikala H K, Prof (Dr) Maithli Ganjoo, Dr Aman Vats,Dr. Rajneesh Tyagi (2022). Gestational Diabetes Detection Using Machine Learning Algorithm: Research Challenges of Big Data and Data Mining, International Journal of Intelligent Systems and Applications in Engineering, IJISAE, 10(2s), pp. 260–263.

[18]. T. R. Mahesh ,V. Vinoth Kumar , V. Muthukumaran , H. K. Shashikala , B. Swapna , Suresh Guluwadi (2022). Performance Analysis of XGBoost Ensemble Methods for Survivability with the Classification of Breast Cancer, Journal of Sensors, https://doi.org/10.1155/2022/4649510

[19]. Shashikala, H.K, Abhinav Singh Upreti, Shreya Nupur Shakya, Shaik Dadapeer (2022). Attendance Monitoring System Using Face Recognition, International Journal of Information Technology, Research and Applications, 1(3), pp. 15-22, ISSN: 2583 5343 DOI: 10.5281/zenodo.7385439

[20]. Divya Paikaray, Divyanshi Chhabra, Sachin Sharma, Sachin Goswami, Shashikala H K, Prof. Gordhan Jethava (2022). Energy Efficiency Based Load Balancing Optimization Routing Protocol In 5G Wireless Communication Networks", International Journal of Communication Networks and Information Security, 14(3), pp. 187:198, ISSN: 2073-607X, 2076-0930