

# The Development of *Kolej Kediaman Pagoh* Freelancing System

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DOI: <https://doi.org/10.30880/mari.2024.05.01.027>

## Article Info

Received: 1 September 2023  
Accepted: 10 December 2023  
Available online: 31 January 2024

## Keywords

System, Freelancing, Online  
Freelance Marketplace

## Abstract

Kolej Kediaman Pagoh (KKP) Freelancing System, designed exclusively for the residents of Pagoh Residential College, is a tailored website that connects talented freelancers within the college community, offering convenient access to a wide range of freelance services. The system utilizes various web technologies, including HTML, CSS, PHP, JavaScript, and Firebase. During the development process, Visual Studio Code served as the primary code editor, ensuring efficient programming tasks. For efficient database management, phpMyAdmin was employed, providing a user-friendly interface for creating, editing, and organizing the system's data. Hosting the KKP Freelancing System was achieved using Firebase, a cloud-based hosting platform that delivered scalability, reliability, and fast performance. By combining the power of Visual Studio Code, phpMyAdmin, and Firebase with other web technologies, the development team successfully created a reliable and user-friendly platform, fostering collaboration and supporting local talent within the college community. Whether residents require assistance with academic projects, event organization, or personal tasks, KKP Freelancing System provides a thriving collaborative community to connect with skilled freelancers and achieve their goals.

## 1. Introduction

A self-employed worker, often referred to as a freelancer, is an individual engaged in occupations categorized as "self-employment jobs". These jobs involve receiving compensation directly based on the profits generated from providing goods or services, either individually, with one or more partners, or as part of a cooperative [1]. The Pagoh Residential College is a vibrant and dynamic community where individuals from diverse backgrounds come together to pursue their academic and personal goals. To enhance the student experience and promote a well-rounded lifestyle, the implementation of the Kolej Kediaman Pagoh (KKP) Freelancing System within the Pagoh Residential College offers an innovative system for students to connect, collaborate, and utilize their skills and talents.

The implementation of the KKP Freelancing System within Pagoh Residential College offers students a platform to connect, collaborate, and utilize their skills. This tailored system allows students to engage in freelancing activities, providing services in various fields and optimizing resource utilization. With an auto-generated line court, students can easily switch between different sports activities, promoting an active lifestyle and enhancing the college experience. The next section will discuss the background of the project followed by the

methodology used in the project. Sections 4-5 will discuss project development followed by results and discussion as well as the conclusion as the final section of this paper.

## 2. Literature Review

This section aims to explore and analyse existing literature, research studies, and relevant sources to freelancing websites, skill showcasing, and the challenges faced by students in displaying their expertise [2]. By reviewing the available literature, we can gain a comprehensive understanding of the current state of the field, identify gaps in knowledge, and draw insights that will inform the design and implementation of the KKP Freelancing System. Referring to the information presented in Table 1, numerous systems have been developed, with similar functions and purposes as the system under discussion.

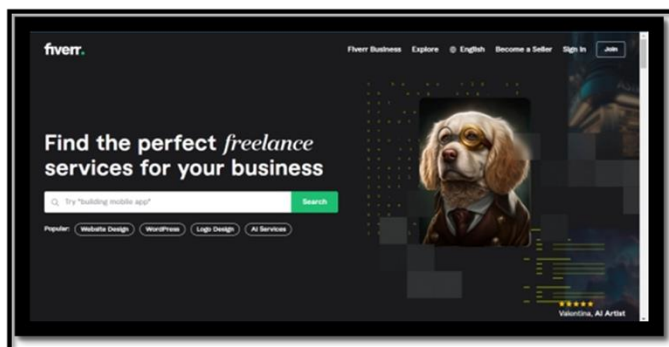
**Table 1** Differences between the existing projects

Modules	System		
	Fiver	Upwork	KKP Freelancing
System type	Web-based, Mobile App	Web-based, two different mobile apps for freelancers and customers	Web-based, Mobile App
Availability	Worldwide	Worldwide	Pagoh Residential College
Users	Freelancer, Customer	Freelancer, Customer	Freelancer, Customer
Accessibility	Must pay a subscription to use more extra features	Must pay a subscription to use more extra features	Do not have to pay anything to use features.
Specialty	Provide subscription packages for freelancers to set on their profile	Provide various ranges of specializations in each category	Provide easy access for students and lecturers in Pagoh Residential College

Table 1 shows that Fiver, Upwork, and KKP Freelancing are three distinct freelancing websites that cater to different user needs. Fiver and Upwork are web-based websites with a global presence, while KKP Freelancing, exclusive to residents of Pagoh Residential College, offers both web-based access and a mobile app. Fiver and Upwork operate on a subscription-based model, requiring payment for additional features, while KKP Freelancing stands out by providing free access to its features for Pagoh Residential College residents. Fiver specializes in subscription packages to enhance freelancer profiles, while Upwork offers a wide range of specialized categories. KKP Freelancing serves as an accessible option for Pagoh Residential College residents, providing them with easy access to freelancing opportunities without any additional costs.

### 2.1 Observation of an Existing System

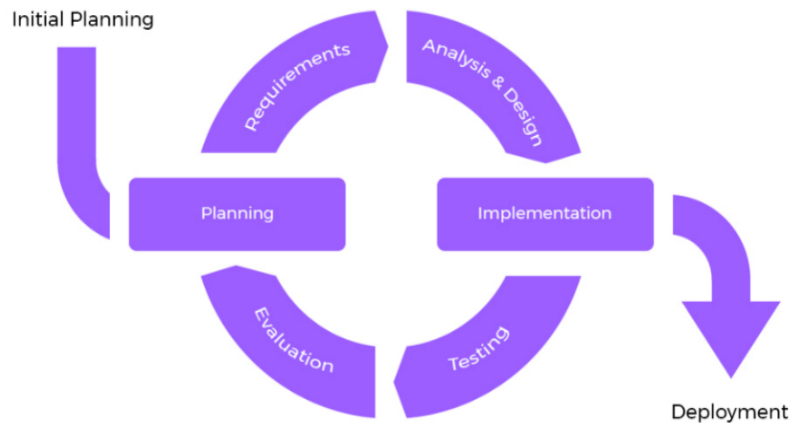
The activities that have been carried out are for searching for information on the Internet and feedback from the supervisor. As a result of these activities, we have discovered several online freelance websites that can be used to implement this project. Moreover, several websites can be used as references in developing our KKP Freelancing Service System the Fiverr freelancing service system's [3] home page, where talented freelancers from diverse fields come together to showcase their skills and connect with clients worldwide. Fig. 1 features a slide presentation of images of people who are experts in each industry. In addition, it displays menus such as "Fiverr Business", "Explore", "English", "Become a Seller" and "Sign In".



**Fig. 1** Homepage The Fiverr Freelancing website

### 3. Methodology

To create KKP Freelancing, we followed these steps and researched the freelancing needs of Pagoh Residential College residents. Developed a user-friendly web-based system and mobile app. Verified residency status for eligibility. Enabled residents to post and bid on freelance projects. Facilitated seamless communication and file sharing. Implemented a feedback system for reviews and ratings. Continuously gathered feedback and made updates to improve the system functionality and user experience.



**Fig. 2** Iterative methodology

#### 3.1 Project Limitation

The area covered by a freelancing website can vary depending on its scope and target audience. Some freelancing websites operate on a global scale, allowing freelancers and clients from all around the world to connect and collaborate. These websites typically support multiple languages, and currencies, and have a diverse user base spanning various countries and industries. However, the limitation of our website would be the geographical coverage, specifically targeting the students of Pagoh Residential College only. The freelancing system we develop will be exclusively available to students within the college, creating a localized ecosystem where students can find freelance opportunities, earn income, and develop their skills within their respective fields of study. While this limitation may restrict the platform's reach beyond the college campus, it allows for a more concentrated and tailored experience for the students, fostering a sense of community and collaboration within the Pagoh Residential College environment. In addition, in the KKP Freelancing system, freelancers are allowed to provide a range of services within the Pagoh Residential College. This includes services such as tutoring, proofreading, housekeeping, and other services that they specialize in and are capable of offering. The system aims to connect freelancers with clients or individuals within the college community who require these services. Freelancers can showcase their skills and expertise in various fields and offer their assistance based on the needs and preferences of the clients within the Pagoh Residential College.

#### 3.2 Planning

In this 14-week development phase, our team noticed that residents of Pagoh Residential College face challenges in managing their daily routines due to busy work and study schedules. To address this issue and cater to the need for students to generate income and improve their skills, we embarked on developing a system [4]. Extensive research within the college community validated the relevance and necessity of our solution. By engaging with students and gathering insights into their specific needs, we ensured that our system effectively addresses their pain points. This development phase aims to provide a practical solution that helps students balance their responsibilities while fostering personal and professional growth.

#### 3.3 Requirement Analysis

During the Requirement Analysis phase, our team collaborated closely with the students of Pagoh Residential College, conducting interviews, surveys, and focus groups to gather valuable information and insights. Additionally, we conducted a comprehensive literature review of similar systems to identify best practices and user-friendly features. This research-oriented approach ensured the development of a useful and tailored system that addresses the specific needs and preferences of the college community. By actively engaging with the users and leveraging existing knowledge, we aimed to create an efficient and user-friendly platform that streamlines workflows and enhances the overall user experience [5].

### 3.4 Design

During the design phase, our team extensively researched and analysed various freelancing websites, gathering inspiration for our platform. Using Canva, we transformed our ideas into visually appealing designs. Through surveys and user feedback, we refined our designs to meet user preferences and improve the overall user experience. This iterative process ensured that our platform's aesthetics, layout, and navigation resonated with our target audience. By actively incorporating user suggestions, we optimized our designs and identified areas for innovation. The user-centric approach resulted in a visually captivating platform that exceeded user expectations.

### 3.5 Implementation

To ensure the success of our project, we utilized a combination of programming languages and tools. HTML played a crucial role in creating the website structure, while CSS was employed for styling and enhancing the visual appeal. For dynamic website development, we relied on PHP to handle server-side processing and generate dynamic content. MySQL was utilized for efficient database management, enabling seamless data storage and retrieval. JavaScript was essential for incorporating interactivity and enhancing the user experience through dynamic elements and functionality. To host our website, we utilized Firebase, which provided reliable hosting services and simplified the deployment process. The use of these programming languages and tools allowed us to create a well-structured, visually appealing, and interactive website while ensuring efficient data management and reliable hosting.

### 3.6 Testing

The testing phase plays a vital role in the development process of the KKP Freelancing System, as it determines the necessary additions, deletions, and refinements for the system. Employing an agile methodology, the team conducted iterative activities to facilitate continuous improvement and adaptation [6]. Important stakeholders, such as KKP, FYP supervisors, and friends, were actively engaged to seek their valuable opinions and suggestions. The feedback received was diligently documented and used to make necessary corrections and enhancements to the system. Through comprehensive testing at various stages of development, the team effectively identified and addressed issues while consistently improving the functionality and performance of the KKP Freelancing System.

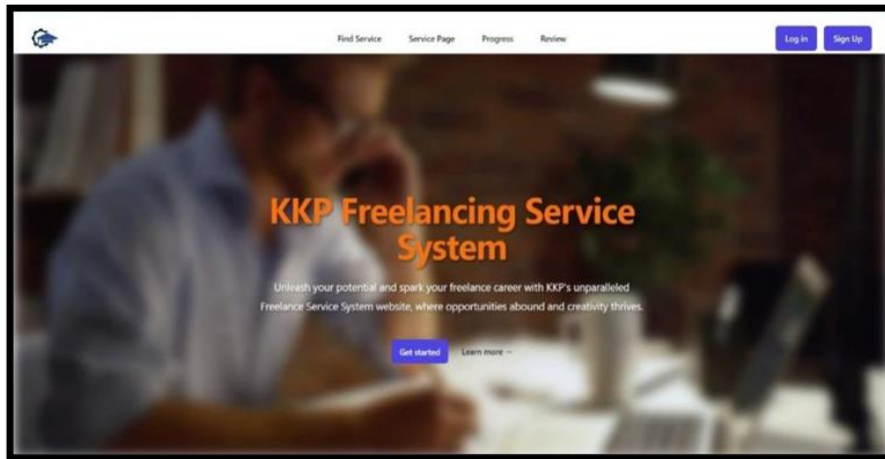
### 3.7 Review and Feedback

The review and feedback phase plays a pivotal role in meeting stakeholder expectations and achieving project goals. We conducted a thorough feedback form and extensive research to identify areas of improvement within our system. This proactive approach allows us to address concerns and enhance the overall functionality and user experience. By actively seeking and incorporating feedback, we demonstrate our commitment to continuous improvement. This iterative process is crucial for ongoing system enhancement and ensures that we meet stakeholder expectations. Through the review and feedback phase, we aim to deliver a high-quality, user-friendly solution that aligns with stakeholder needs and project objectives.

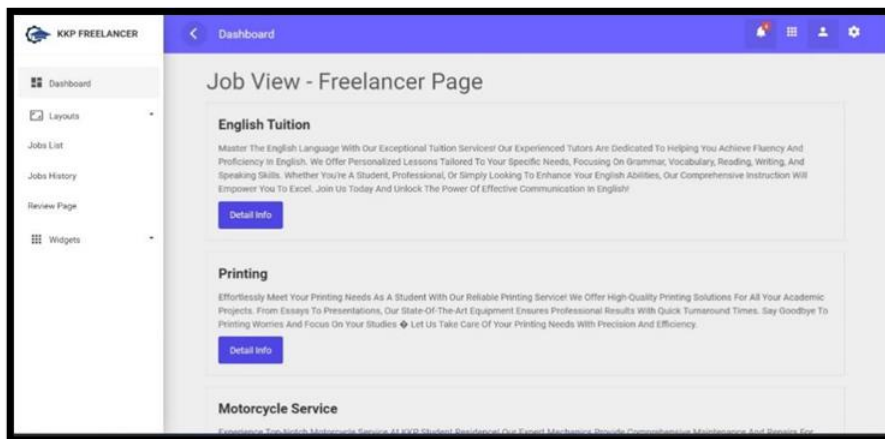
## 4. Result and Discussion

The homepage of the freelancing service system serves as the gateway and the first point of contact for users, both freelancers and customers. The homepage should prominently feature options for user registration and login. This allows new users to create an account or existing users to access their accounts easily. The homepage (see Fig. 3) should have a clear and intuitive navigation menu, enabling users to easily access different sections of the platform. This may include options such as "Find Service", "Service Page", "Progress", and "Review". Well-organized navigation enhances user experience and ensures seamless exploration of the platform.

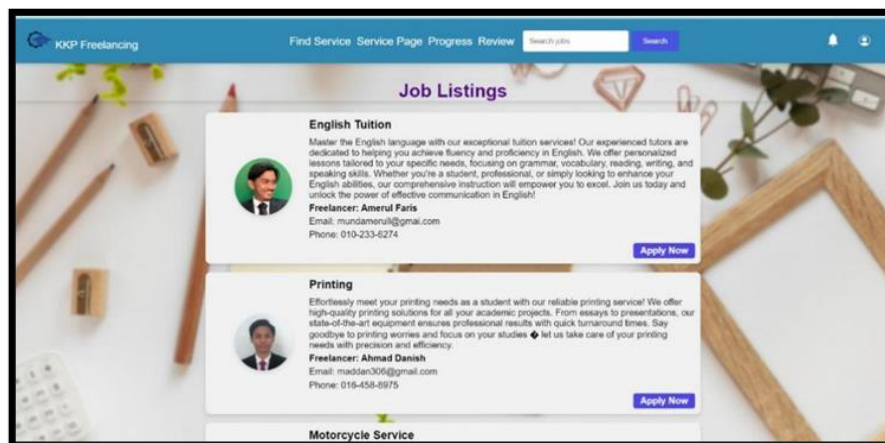
The dashboard for the job view freelancer page (see Fig. 4) in the freelancing service system provides freelancers with a comprehensive and user-friendly interface to manage their projects, communicate with customers, and track their progress. It serves as a central hub where freelancers can access vital information, such as details on customers, and stay organized throughout the project lifecycle. The dashboard presents freelancers with an overview of their active and ongoing projects, displaying essential project information including the project name, customer's name, project status, deadline, and payment status. This summary allows freelancers to quickly assess their workload and effectively prioritize their tasks. Additionally, the dashboard includes a dedicated communication centre that consolidates all customer communications related to the project. This feature enables freelancers to view and respond to customer messages, ask clarifying questions, and seamlessly share project updates. It may offer options for real-time messaging, file sharing, and notifications to ensure efficient and effective communication between freelancers and customers.



**Fig. 3** Homepage KKP Freelancing System



**Fig. 4** Dashboard for KKP Freelancing System



**Fig. 5** Service page for customer KKP Freelancing System

The service page (see Fig. 5) in the freelancing service system serves as a central hub for freelancers to discover and apply for available service opportunities. It provides a comprehensive and user-friendly interface where freelancers can search for relevant services, review service details, and submit their proposals. A search bar is available on the homepage, allowing users to quickly find relevant service providers or service postings. This feature enhances user convenience and efficiency, enabling them to navigate the platform and find suitable opportunities or talent effortlessly. The service page serves as a central hub that provides an overview of the freelancing services offered, promotes user engagement, and guides users toward their desired service. It offers



search and filtering functionality to help freelancers find services that align with their skills and interests. Freelancers can search by keywords and service categories, allowing them to narrow down the list of service listings and focus on opportunities that match their expertise. Each service listing on the page provides essential details about the service, including the service title, service provider's name, service description, and required skills. Clear and concise service descriptions enable freelancers to assess the service's scope and requirements, helping them make informed decisions about whether to pursue the opportunity. The service page in the freelancing service system creates a thriving collaborative community, where freelancers can easily connect with skilled service providers and leverage their expertise to benefit their fellow freelancers. Whether freelancers require assistance with specific projects or need specialized services, the service page offers a convenient and efficient platform to find and engage with a wide range of freelance services within the community.

Fig. 6 displays the results of 11 KKP students who responded that the system for freelancing at KKP is very user-friendly, simple to use, and sustainable. By integrating simple navigation, detailed instructions, and a user-friendly interface, the platform places a high priority on a seamless user experience. This guarantees that users can effortlessly connect with the site, discover acceptable job opportunities, and effectively collaborate with clients. Additionally, the system's usability lowers the learning curve for new users and promotes continued participation, all of which contributes to its overall sustainability. The KKP Freelancing System seeks to offer a dependable and accessible platform for Pagoh Residential College residents to successfully engage in freelancing by combining user-friendliness, convenience of usage, and sustainability.

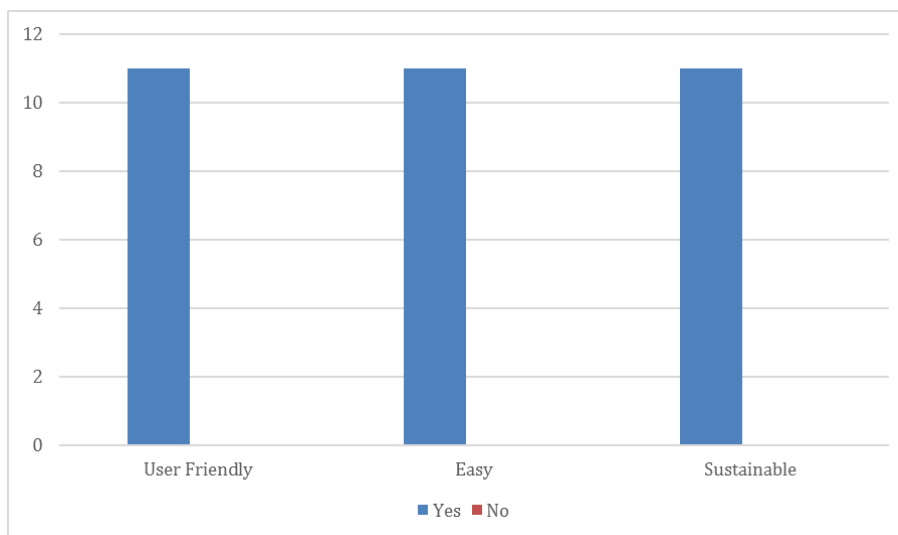


Fig. 6 Feedback from respondents

## 5. Conclusion

In conclusion, the development and implementation of the KKP Freelancing System has achieved its objective of providing Pagoh Residential College residents with a platform exclusively designed for accessing freelance opportunities within their community. Through thorough testing and iteration, the platform has demonstrated its effectiveness in fulfilling its purpose. KKP Freelancing System has successfully fostered engagement and collaboration within the college community, allowing residents to showcase their skills and contribute to projects. It has also played a crucial role in the personal and professional growth of the residents, providing them with valuable experiences and opportunities to develop their talents. Additionally, the platform's financial benefits have alleviated some of the financial burdens associated with college life, empowering residents to pursue their educational aspirations. Overall, KKP Freelancing System has become an essential tool for residents, promoting entrepreneurship, collaboration, and skill development. Continued efforts to enhance and expand the platform will ensure its long-term success and sustainability, further enriching the lives of the residents and strengthening the college community.

## Acknowledgement

The authors would like to thank the Centre for Diploma Studies, Universiti Tun Hussein Onn Malaysia for its support.

## Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

## Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design, data collection, draft manuscript:** Amir Haziq Adnan, Danish Hakimi Kamaruzaman, Siti Husna Hasan Hisamudin; **draft manuscript preparation:** Amir Haziq Adnan, Danish Hakimi Kamaruzaman, Siti Husna Hasan Hisamudin, Noordiana Kassim @ Kasim. All authors reviewed the results and approved the final version of the manuscript.

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