Development Of The Nurul Hikmah Islamic Boarding School Website In Ciwidey District Bandung Regency

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Abstract

The advancement of Islamic boarding schools can be improved by using internet-based information media, thereby facilitating widespread community access to information. This phase necessitates sufficient infrastructure that fulfills the institution's requirements. Moreover, creating a website requires specific skills and knowledge to ensure the content is readily accessible, aesthetically pleasing, and comprehensible to consumers.

The community service team from STMIK Mardira Indonesia employed a descriptive, qualitative approach in developing the Pondok Pesantren Nurul Hikmah website, using the waterfall model within the Software Development Life Cycle (SDLC) stages. Upon completing the creation process, training is vital for management personnel, especially for operators and administrators who oversee website content. This website development enables the community to get information that is transparent, expedited, and comprehensible.

Keyword :   *Development, Training, Information, Website*

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Introduction

To expedite the advancement of Islamic boarding schools, it is imperative to provide accessible information resources that leverage suitable, cost-effective infrastructure. An alternative is to register a domain and procure hosting services from an internet service provider at a reasonably modest cost, enabling the online publication of information regarding Pondok Pesantren Nurul Hikmah as required.

Pondok Pesantren Nurul Hikmah is a religious educational institution that is essential in cultivating a generation with strong morals and profound religious comprehension. With the progression of information technology, a system is required to enhance the efficiency and organization of boarding school activities. The objective of developing this information system website is to enhance information accessibility, optimize administrative administration, and broaden the outreach of Pondok Pesantren Nurul Hikmah.

The website for Pondok Pesantren Nurul Hikmah is crafted to offer an organized solution for information and communication management. This initiative is primarily inspired by the school's necessity to improve administrative efficiency, information dissemination, and transparency of activities for students, parents, and the community. This website utilizes digital technology to provide services such as school information, activity schedules, announcements, and online learning. The primary objective of the project is to develop an intuitive, responsive platform that thoroughly addresses the operational requirements of the boarding school. Furthermore, the primary advantages of establishing this website include improved information accessibility, reduced administrative costs, and greater user satisfaction.

The community service team at STMIK Mardira Indonesia, consisting of staff and students, is tasked with developing the Pondok Pesantren Nurul Hikmah website as part of their commitment to the Tri Dharma Perguruan

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Tinggi, specifically in community service. This initiative is executed as a thorough, significant, cohesive, and sustainable problem-solving endeavor, designed to facilitate the creation of a website that fulfills the requirements of and is easily manageable by the staff at Pondok Pesantren Nurul Hikmah.

Method

This community service project employs a qualitative descriptive method, with data collected through observations and interviews. The Abdimas team from STMIK Mardira Indonesia conducted an on-site visit to Pondok Pesantren Nurul Hikmah to discuss and share information with the current website administrators. This initiative aimed to transform the website from a static format to a dynamic platform, facilitating bidirectional communication between stakeholders and Pondok Pesantren Nurul Hikmah, particularly regarding activities and current educational processes within the school.
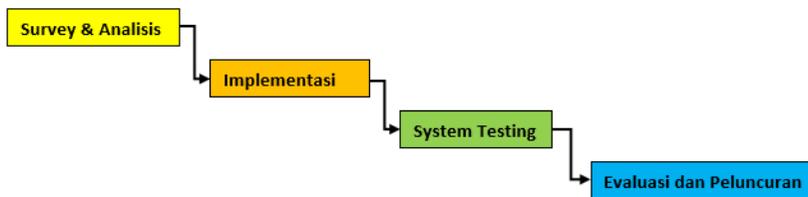
The employed implementation approaches are:

Figure 1. Implementation Method

1. Survey and Analysis

    a. The Abdimas team from STMIK Mardira held discussion sessions and interviews with the management of Pondok Pesantren Nurul Hikmah to clarify the anticipated requirements.
    b. They crafted the website's interface, prioritizing user-friendliness and comfort.
    c. They developed a database architecture with MySQL as the platform for data storage.

2. Implementation

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Enhancing essential system capabilities by incorporating interactive communication functionalities, including online registration services for new students.

3. System Testing

   a. They executed trials on each feature to verify that all features ran seamlessly with the aid of many volunteer users.
   b. They guaranteed the security and safeguarding of the data administered by the system.

4. Evaluation and Launch
   a. They performed an assessment utilizing feedback from the volunteer users engaged in the system testing phase.
   b. They executed adjustments and deployed the website on the previously utilized internet service server.

The creation of the website using the Waterfall technique, as applied in the design of a web-based library information system, offers advantages through the systematic execution of each development stage in accordance with the established plan. In the requirements analysis phase, the development team identified several user-required features, including profile pages, educational information, registration, and a blog..
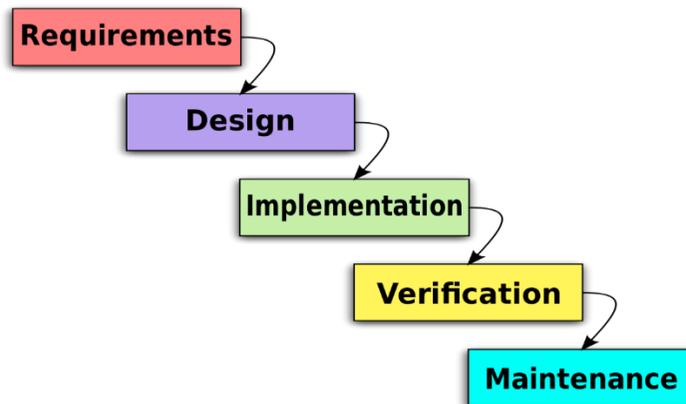

Figure 2. Waterfall Method

The responsive design enables optimal display of the website across many platforms, including smartphones and tablets. With the rising utilization of mobile devices by students and parents, Pondok Pesantren Nurul Hikmah must adopt a responsive design to facilitate easy access to information for all users.

The Pondok Pesantren Nurul Hikmah website offers numerous advantages, including greater transparency by enabling the boarding school to communicate information on activities, accomplishments, and administration to the community. It provides students and parents with access to essential information, including class schedules, announcements, and current news. The website serves as a promotional tool, attracting prospective students and elevating the institution's reputation within the community.

Creating the website is a strategic initiative that offers multiple advantages. The boarding school can improve access to information, transparency, and stakeholder participation in the educational process by leveraging information technology. Consequently, the establishment of this website is anticipated to enhance administration and communication within Pondok Pesantren Nurul Hikmah. The infrastructure is obtained by subscribing to services from a reputable internet service provider known for quality service.

Results and Discussion

The principal objective of this project is to develop an educational and interactive online platform for prospective students, parents, alums, and the wider community, thereby enhancing Pondok Pesantren Nurul Hikmah's digital presence and reputation.

3.1. Schedule of activities

The activity calendar is formulated to offer a systematic overview of the phases in the development project for the Nurul Hikmah website, from the planning stage through to the launch phase. This schedule serves as a guide for the development team to ensure the project is carried out in accordance with the predetermined plan and deadline.

Table 1. Activity Schedule

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No	Activity	Duration	Executor	Information
1	Planning Stage	1 day	STMIK Mardira Indonesia Community Service Team	Forum Group Discussion
2	Data Collection and Needs Analysis	5 day	Development Team	Interview with the management of the Islamic Boarding School
3	Website Design Planning	10 day	Desainer	Creating frameworks, mockups, and prototypes.
4	Development Stage	1 day	Supervisor and Development Team	Forum Group Discussion
6	Website Development	14 day	Development Team	Creating homepages, profile pages, etc.
7	Special feature development	15 day	Development Team	Registration form, etc.
8	Testing Phase	1 day	Supervisor and Development Team	Forum Group Discussion
9	Functional Testing	5 day	Development Team	Ensure all features are working as expected
10	Appearance Testing	5 day	Development Team	Ensure responsive display on various devices.
11	User Testing	4 day	Development Team	Collecting feedback
12	Launch Phase	1 day	Supervisor and Development	Forum Group Discussion

			Team	
13	Website Launch	1 day	Development Team	Promotion
14	Final Evaluation	1 day	Supervisor and Development Team	Forum Group Discussion
15	Training	3 day	STMIK Mardira Indonesia Community Service Team	Conducting training for the Nurul Hikmah Islamic Boarding School website management team.

3.2. Data Collection and Needs Analysis

Interview: Engaging in a Q&A session with the administration of Pondok Pesantren Nurul Hikmah to ascertain essential information for the website, including the vision and mission, historical background, educational programs, facilities, and current activities.

3.3. Website Design Planning

The development team commenced the design process, which encompasses various steps as outlined below:

Initially, they developed the framework by delineating the website's fundamental structure to establish the organization and hierarchy of the material to be presented. Subsequently, they created a mockup that provides a more comprehensive visual design, encompassing color choices, font styles, and graphic elements that align with Sekolah Asrama Islam Nurul Hikmah's identity. Ultimately, they developed an interactive prototype to assess the user flow and collect comments for review.

3.4. Website Development

The preliminary phase entails constructing the website on localhost through a series of processes, including:

Initially, they develop the homepage, profile page, and other fundamental pages. Subsequently, they create several essential features for the website,

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including an engaging main page, a profile page for the boarding school, a page detailing educational programs, a registration page for new students, a section for news and recent activities, a gallery for photo and video documentation, and a contact page with pertinent information.

They subsequently implement Search Engine Optimization (SEO) strategies to improve the website's ranking in search engine results. Subsequently, they perform testing and initiate the website launch. This encompasses online functionality testing to confirm the seamless operation of all features, online display testing to assess the website's responsiveness and accessibility across various devices, including desktop computers, tablets, and smartphones, and online user testing to engage multiple users and evaluate the website and provide feedback.

They officially launch the website while concurrently executing promotional activities.

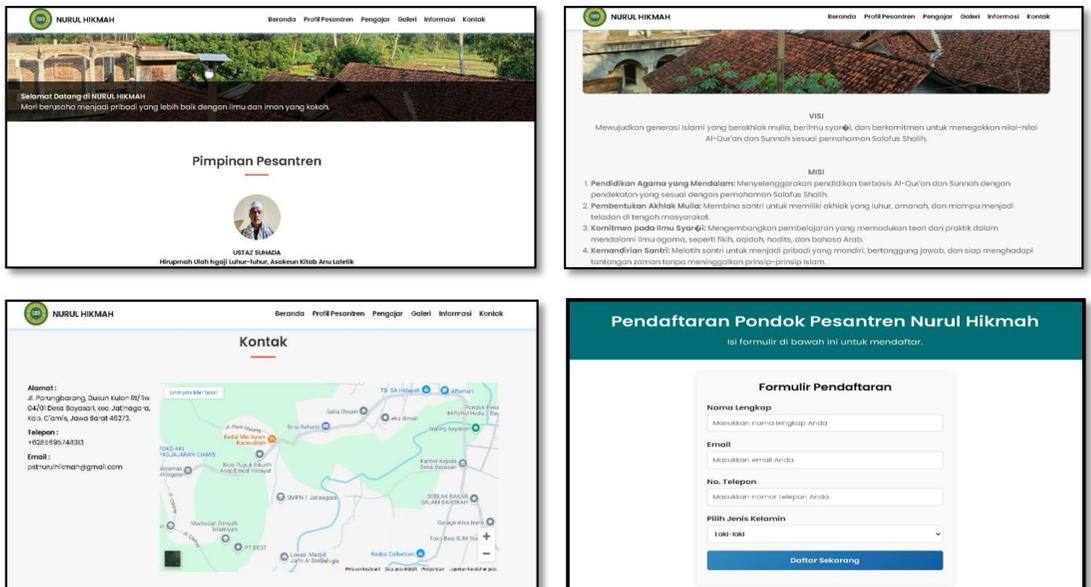The results of the latest website display can be seen in Figure 3.

Figure 3. Appearance of the Nurul Hikmah Islamic Boarding School Website

3.5. Evalution

Upon the completion of the launch process, and in the absence of disruptions or mistakes within the application, many assessments are performed about the subsequent aspects:

Initially, they assess traffic by analyzing visit volume and user activity patterns on the website. Subsequently, they collect user input through surveys and website comments. Ultimately, they assess goal attainment by determining whether the website has achieved predefined objectives, such as increasing new student registrations or raising awareness of Pondok Pesantren Nurul Hikmah within the community.

3.6. Handover

Upon completion of the development phase and evaluation results confirming that the design was ready for publication without any impediments to its implementation, the STMIK Mardira Indonesia Community Service Team handed over the design to the Nurul Hikmah Islamic Boarding School.

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Figure 4. Training Process and Handover of Nurul Hikmah Islamic Boarding School Website

Conclusion

The website for Pondok Pesantren Nurul Hikmah has successfully met its initial development objectives by providing a digital platform that facilitates the boarding school's operational activities and communication. Continuous assessments aim to ensure the website evolves in accordance with user requirements. Moreover, forthcoming development initiatives encompass

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the incorporation of enhanced interactive notification functionalities and the refinement of the user interface design.

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