

Notary

Nidhi Shah and Gogula Gopikrishna

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

March 27, 2024

Notary

Nidhi Shah¹ (Assistant Professor)

Department of Computer Science and Engineering

Parul University, Vadodara, India.

nidhi.shah19176@paruluniversity.ac.in

Gogula Gopikrishna²

Department of Computer Science and Engineering

Parul University, Vadodara, India.

gogulagopikrishna14@gmail.com

designed to facilitate efficient document exploration and analysis. The platform offers users the ability to discover books, delve into the most and least used words within those texts, and access comprehensive document statistics. With an intuitive interface, Notary empowers users to navigate through diverse literary works, gaining valuable insights into the language patterns and overall composition of the documents. By seamlessly integrating book discovery and linguistic analysis features, Notary aims to provide a comprehensive and engaging tool for users seeking a deeper understanding of written content. The user interface of Notary is designed for simplicity and efficiency, ensuring a seamless and intuitive experience. The book discovery feature allows users to explore adverse range of literary works, catering to various interests and preferences. The linguistic analysis component enables users to gain a deeper understanding of the language dynamics within the documents, empowering them to identify patterns, trends, and distinctive word

Keywords—HTML/CSS, JavaScript

I. INTRODUCTION

In the Notary project, various departments collaborate to deliver a seamless and reliable user experience. The Development Department takes the lead in designing and implementing algorithms for real-time book collection, developing user interfaces, and ensuring cross-platform compatibility. Simultaneously, the Database Management Unit focuses on designing and maintaining the database architecture, storing books, and facilitating data integration. The Network and Infrastructure Department plays a crucial role in setting up and maintaining servers, configuring network components, and implementing security measures to ensure uninterrupted data flow. The User Interface (UI) and User Experience (UX) Design Department contribute by creating visually appealing layouts and optimizing user interactions. The Quality Assurance (QA) and Testing Unit rigorously test the application, identifying and resolving bugs to ensure the accuracy and reliability of book search. Finally, the Customer Support Department provides assistance to users, addressing queries and feedback, thereby completing the comprehensive network of departments collaborating to deliver a top-notch books. Recording client data and certificate file data in the Notary's office is still done with traditional systems that tend to be manual. The problem that occurs is the inefficiency in processing data and providing information to clients, because processes like recording client data, incoming certificate file data, and making reports are still done by handwriting on the book. Clients have difficulty getting information related to the progress of the file that is being taken care of at the notary's office. The client must take the time to arrive to the notary's

office repeatedly to check the progress of the document file. This study proposes the application of a notary administration system to solve this problem. Client data and certificate file data entered will be processed so as to produce a certificate registration number that will be provided to the client for use in tracking files. Clients can also receive notifications whenever there is status update of a job from an employee. Similar to previous research which can only be accessed via telegram, clients who do not have supporting devices such as smartphones or laptops cannot access the administration system [1].Web-based notary administration system and integrated with Multi-Channel Access (MCA) technology to facilitate clients access information related to the work status of files from multiple channels. Notary administration system is designed to make it easy for clients to get information about the status of work files. In addition, this system makes it easy for employees to record and process incoming data files. This system will send a notification message to the client when a job status update occurs on the system, a notification message will be received by the client either through the Telegram application or SMS Gateway. Clients can also request file job status via the Telegram and SMS application by entering the client service code. Therefore, clients do not need to come to the office and contact employees by telephone to find out the status of work files that are running.



Fig 1.1 Home Page

II. LITERATURE REVIEW

Recording client data and certificate file data in the Notary's office is still done with traditional systems that tend to be manual. The problem that occurs is the inefficiency in processing data and providing information to clients, because processes like recording client data, incoming certificate file data, and making reports are still done by handwriting on the book. Clients have difficulty getting information related to the progress of the file that is being taken care of at the notary's office. The client must take the time to arrive to the notary's office repeatedly to check the progress of the document file.

This study proposes the application of a notary administration system to solve this problem. Client data and certificate file data entered will be processed so as to produce a certificate registration number that will be provided to the client for use in tracking files. Clients can also receive notifications whenever there is a status update of a job from an employee. Similar to previous research which can only be accessed via telegram, clients who do not have supporting devices such as smartphones or laptops cannot access the administration system [1].

Web-based notary administration system and integrated with Multi-Channel Access (MCA) technology to facilitate clients access information related to the work status of files from multiple channels.

Notary administration system is designed to make it easy for clients to get information about the status of work files. In addition, this system makes it easy for employees to record and process incoming data files. This system will send a notification message to the client when a job status update occurs on the system, notification message will be received by the client either through the Telegram application or SMS Gateway. Clients can also request file job status via the Telegram and SMS application by entering the client service code. Therefore, clients do not need to come to the office and contact employees by telephone to find out the status of work files that are running.

Research related to the use of Telegram technology and SMS Gateway, namely research student attendance applications using Telegram Messenger technology. Telegram messenger here serves as a medium for sending information to students' parents regarding their child's attendance at school[1].

The disadvantage of this application is that it only sends information via the Telegram Application, so parents of students who don't have smartphones cannot access it. Research carried out adds an SMS Gateway to facilitate users who do not have a smartphone. Other research is a student information system integrated with SMS gateway. Students can send messages according to the code provided to get information from the university. The SMS feature integrated

with the system will speed up the process of delivering information from the university to students. The weakness of this system is that it only focuses on SMS [2].

In addition to expensive credit fees, people use more data packages in this internet era. Research carried out is to add Telegram technology to the system created to facilitate users who currently have a lot of applications to use messaging services.

Other research is about systems that approve research applied at Educational Institutions. This system is integrated with SMS

and Email. Students can receive information quickly and easily related to exam results and grades during studies[3].

The weakness of this system is the system can only do One-Way communication. So the user only receives approval of exam results and grades during the course of study. Research carried out is to create a notary administration system using multi-channel access technology using Telegram and SMS Gateway Applications. The system can make Two-Way communication, where users can request service details by entering the service code, Telegram bot and SMS will reply as requested by the user.

Other research related to the use of SMS gateway technology is regarding the notification system related to school events. This system is integrated with SMS. When the admin enters the event data, information will be disseminated via a GSM modem. This GSM modem will communicate with cellular networks. Furthermore, the information is sent to each cellphone [4].

The weakness of this system is that this system can only do oneway communication. The system will provide notifications regarding school events to students, parents and teachers, whereas research conducted by the system can carry out two-way communication where users can ask for detailed service status. Telegram and SMS bots will provide a reply in the form of information on what stages have been completed and what stages have not been completed. Other research related to file monitoring system, this system allows users to manage documents, as well as the ease of monitoring a document [5]

III. METHODOLOGY

The system development methodology used in this research is the waterfall method. The waterfall model is a linear sequential flow where progress is seen flowing downward like a waterfall through the software implementation phase. This model means that each phase in the development process starts only if the previous phase is completed.

The waterfall model defines several sequential phases that must be completed one by one and moves to the next phase only when the previous phase has been done or completed. The waterfall model is recursive because each phase can be repeated endlessly until it is perfect.

The analysis phase is the stage of defining the functions, behavior, and the specifications of user's needs to understand the business processes in the notary administration system.

Data collection is done through observations and interviews to get the specifications of user needs. The following are the results that can be elaborated from observations and interviews conducted related to the specifications of functional and non-functional requirements.

IV. FINDINGS AND DISCUSSION

At this stage the main thing that needs to be done is to identify needs. The requirements referred to are the determination of how to use the system, the data that must be entered into the system process, and the output requirements of the system process.

a. Input requirements

The following are the input requirements needed to fulfill the system implementation:

Data such as: username and password needed to login system.

User Data which includes: id user, username, password, and access privilege status.

Master Data which includes: client data, service type data, phase data, form data, notary data, and

requirements data.

System Configuration Data which includes: phase type service settings, and setting the form on the type of service.

b. Process requirements

Analysis of process requirements in the developed system consists of:

(1) Configuration process

The process of configuration data can only be done by the admin. The process includes: setting the type of service phase, and setting the type of service. Data processing on the system requires setting the service type phase and setting the service type form first so that the system processes the input data according to the selected service type.

(2) Entering client data process

The process of entering client data includes: client number, NIK, name, address, NPWP, gender, mobile number, marital status, occupation, and telegram ID.

(3) Entering master data process

The process of entering parameter data includes: entering service type data, form data, phase data, condition data, and notary data.

(4) Transaction process

The administrative system transaction process at this notary office includes: registration of new clients, making requests for types of services, and processing data files.

(5) Notification process

The notification process includes: notifications related to job status information via the Telegram and SMS Application.

c. Output requirements

Output requirements include: file data reports for each type of service entered, file job status information sent to the client via Telegram and SMS application.

V.CONCLUSION

In conclusion, to improve service governance in the notary administration system by implementing the application of Multi Channel Access (MCA) Technology

This system makes it easy for employees to process incoming service files, and makes it easy for employees to provide information to clients through an integrated system with Telegram and SMS Bots, so that the delivery of information is more efficient than before.

The results of testing with black box testing have run as expected, while the test results of Likert scale analysis by distributing questionnaires to notary office employees indicate an average index of 96% of respondents included in the category of strongly agree The application of notary administration system based on Multi Access Access Technology has been tested in a real environment, and has successfully facilitated clients who want to submit requests to notary public.

VI: FUTURE WORK

This notary office administration system is web-based and already integrated with the Telegram Application and SMS gateway. The registration data input process can be done in two ways namely by the client directly through the website or the admin of the system manager registering the client data through the system. The following is the process of data input by the client through the website.

The first step page display that must be filled by the client. The first step is choosing the type of service. After the client chooses the type of service, the client will proceed to the next step, which is to fill in the personal data.

The third step display, where the third step is the upload stage of the service registration document in accordance with the requirements of the selected service type. The client must complete the upload of the document before all data is submitted. When the data is submitted, the service registration process by the client is complete. The registration data will go directly to the system managed by the admin at the notary's office. Admin will make the process of updating progress when one stage has been completed or fulfilled.

The progress update page that is managed by admin. Admin will do the progress update process. The progress update page will automatically display the stages that are currently running.

Information related to the status update will be automatically sent via the Telegram Bot and SMS client, so clients can easily find out information related to the progress of the file work in progress without the need to come directly to the notary's office.

V. REFERENCES

- M. B. Chaniago and A. Junaidi, "Student presence using RFID and telegram messenger application : A study in SMK Unggulan Terpadu Pgii Bandung, Indonesia," International Journal of Higher Education, vol. 8, no. 3, pp. 94–102, 2019.
- [2] M. C. S. Vera and B. E. V Comendador, "A web-based student support services system integrating short message service application programming interface," International Journal of Future Computer and Communication, vol. 5, no. 2, 2016.
- [3] O. O. O and O. Ogaba, "Result alert system through SMS and E-mail," IOSR Journal of Mobile Computing Application, vol. 2, no. 2, pp. 41–45, 2015.
- [4] R. Lumaug G, "SENT SMS : School event notification through SMS," Asia Pacific Journal of Multidisciplinary Research, vol. 4, no. 4, pp. 61–68, 2016
- [5] E. Williams and O. Uzochukwu C, "Electronic file monitoring system," Global Journal Of Pure And Applied Sciences, vol. Vol.21, no. 2010, pp. 71–79, 2015.
- [6] K. T. Alemu and T. A. Alemu, "SMS-based agricultural information system for rural farmers in Ethiopia," Journal of Usability Studies, vol. 15, no. 1, pp. 47–62, 2020.
- [7] F. Sari and P. Lidya, "Mobile application reminder of SPP payment Schedule ' S A ND School activities information based SMS gateway," Journal of Telecommunication, Electronic and Computer Engineering, vol. 9, no. 3, pp. 27– 31, 2017.
- [8] Masterjon, "Street light monitoring application based on SMS gateway," International Journal of Scientific and Research Publications, vol. 6, no. 11, pp. 536–539, 2016.
- [9] K. Arun and M. G. Nayagam, "Building applications with social networking API's," Int. J. Advanced Networking and Applications, vol. 2075, pp. 2070–2075, 2014.
- [10] K. Darmaastawan, et al., "LINE messenger as a transport layer to distribute messages to partner instant messaging,"
 I.J. Modern Education and Computer Science, no. March, pp. 1–9, 2019.
- [11] R. C. Dinatha, I. M. Sukarsa, and A. A. K. Agung Cahyawan, "Data exchange service using google drive API," International Journal of Computer Applications, vol. 154, no. 7, pp. 12–16, 2016.
- [12] A. Y. Egwoh and O. F. Nonyelum, "A software system development life cycle model for improved students communication and collaboration," International Journal of Computer Science & Engineering Survey, vol. 8, no. 4, pp. 1–10, 2017.
- [13] A. M. Dima and M. A. Maassen, "From waterfall to Agile software : Development models in the IT sector, 2006 to 2018. Impacts on company management," Journal of International Studies, vol. 11, no. 2, pp. 315–325, 2018.

- [14] M. Elamin and E. Daleel, "Software engineering development and analysis of life cycle models,"International Journal of Computer Applications, vol. 133, no. 10, pp. 9–13, 2016.
- [15] M. H. S. Al, "Importance of data flow diagrams and entity relationships diagrams to data structures systems designin C ++ ' a practical example ," Journal of Managementand Strategy, vol. 8, no. 4, pp. 51–61, 2017
- [16] S. N. Pardeshi, "Study of testing strategies and available tools," International Journal of Scientific and Research Publications, vol. 3, no. 3, pp. 1–4, 2013.
- [17] D. A. R, Hustinawaty, I. Jatnika, and H. Medyawati, "Boundary value analysis testing on augmented reality of Indonesian fruit recognition at mekarsari tourist park using cloud method on android mobile devices boundary value analysis testing on augmented reality of Indonesian fruit recognition at mekarsari T," Journal of Physics, vol. 9, no. 1, 2019.
- [18] A. Joshi, S. Kale, S. Chandel, and D. K. Pal, "Likert scale : Explored and explained," British Journal of Applied Science & Technology, vol. 7, no. 4, pp. 396– 403, 2015.
- [19] T. Sutikno, L. Handayani, D. Stiawan, M. A. Riyadi, and I. M. I. Subroto, "WhatsApp, viber and telegram: Which is the best for instant messaging?," International Journal of Electrical and Computer Engineering (IJECE), vol. 6, no. 3, pp. 909–914, 2016.
- [20] P. K. Bala, M. Kumar, S. Hulawale, and S. Pandita, "Chat-bot for college management system using A.I," International Research Journal of Engineering and Technology, vol. 4, no. 11, 2018.