Research Article

Design of a Marriage Service Management Application at the Pasar Jambi Religious Affairs Office

*Suroto, Tamrin Syah*

1,2Institute of Technology and Science Nahdlatul Ulama Jambi, Indonesia

*Corresponding Author: dimassuroto707@gmail.com

Abstract:

The Office of Religious Affairs of the Pasar Jambi sub-district of Jambi City has several important tasks in terms of marriage affairs. Still, the problem is that the data is complex and not properly organized. Data speed is the answer for every person or resident in Jambi City. Those who want to get married have to go through a lot of documents that must be neatly recorded so that the data can be retrieved quickly and easily. Not only focusing on marriage or nikah data, the Office of Religious Affairs of the Pasar Jambi sub-district also takes care of several other things. Some examples of records carried out are the recording of marriages, referrals, mosque guidance, zakat, waqf, and other social worship. The service management application system at the religious affairs office of the Pasar Jambi sub-district will be able to provide answers on the data speed side. This service management system is made easier to use by all officers at the religious affairs office of the Pasar Jambi sub-district.

Keywords: effectiveness, community service, computerization, PHP, MySQL Databases

1. INTRODUCTION

Currently, all administrative processes carried out in the smallest government in a village, sub-district, and district throughout Indonesia need a computerized system; this needs to be done to speed up the process of data search, data collection, and various other administrative procedures, especially in the marriage registration office or the Office of Religious Affairs (KUA). This research will specifically explore the process of making applications that support the Office of Religious Affairs (KUA) in the Pasar Jambi Subdistrict. The Office of Religious Affairs (KUA) of Pasar District, Jambi City, is one of the 4 Religious Affairs Offices in Jambi City. Since the establishment of the Office of Religious Affairs of Pasar District in 1968, the development of every activity in the Office of Religious Affairs follows the rules that apply in the Ministry of Religion—moreover, The Office of Religious Affairs of Pasar Jambi Subdistrict, Jambi City, Jambi Province. The function of the Religious Affairs Office of Pasar Jambi Subdistrict is to carry out marriage registration, referral, mosque guidance, zakat, waqf, and other social worship. Moreover, Marriage services involve extensive aspects of life. In the life of a state, the government has the function of providing various public services needed by the community.

Furthermore, the government has a role in carrying out the service function. The service is provided at various institutions, such as the Religious Affairs Office Center (KUA), which provides services in the field of religious affairs. With the Marriage
Management Application program, it is hoped that the data from the Religious Affairs Office in Pasar District can be quickly, accurately, and efficiently analyzed. This Service Management Application Program is designed to be used easily by all groups, both novice users and those familiar with computers.

2. THEORY

A. Application: Approaches to Computer Applications for Marriage

According to Syani & Werstantia (2019, p.88), an application is software that contains a coding or command that can be changed as desired. According to Dinata et al. (2018, p.128), the application stores something in the form of data, problems, and work into a means or media that can be applied to a new form. Moreover, According to Sari (2017, p.83), an application is software that aims to serve every computerized activity carried out by the user. Based on the description above, the researcher concludes that the application is software used for data processing and serving needs such as several activities in the form of commerce and advertising systems.

Accordingly, the Marriage Management Information System was first launched by the Indonesian Ministry of Religious Affairs on November 8, 2018, under the name SIMKAH; this information system collects marriage data from all regions of the Republic of Indonesia online. And help the penghulu (Headman or Upholder) carry out their duties and help secure marriage data and the print-out data at the KUA. For this reason, the KUA needs a computerized system connected to SIMKAH to update and synchronize the print-out data and the data stored in the KUA database system. In addition to SIMKAH, the Religious Affairs Office must have a web-based information system to support and provide public services, such as the Public Service Information System Application (SIPP). All information systems or applications created need to synchronize data and avoid data redundancy and invalid data. Minimize databases that are not ideal and make data lean and easy to understand, print, store, and recall data easily, quickly, and undoubtedly more efficient management time.

B. Data: Approach to a Marriage Data

According to Fathansyah (2018, p.2), Data is a representation of actual world facts that represent an object such as humans (employees, students, buyers, customers), goods, animals, events, concepts, conditions, and so on, which are realized in the form of numbers, letters, symbols, text, images, sounds, or combinations thereof conditions, images, sounds, letters, numbers, math, language, or other symbols that can be used as material to view the environment, objects, events, or concepts. Kristanto (2018, p.8) concludes that data describes an event where the data will be processed and applied to helpful input in a system. According to Rusmawan (2019, p.34), Data is a record of a collection of facts. It has a brief definition but has provided the essence of its understanding. Based on the description above, the researcher concludes that data is raw material or facts that can be used as input. After processing, it changes its form into an output called information.
Furthermore, some types of data stored at the Office of Religious Affairs (KUA) include personal data of prospective brides and grooms, marriage witness data, marriage process data, Nikah Management Information System (SIMKAH), so that with this SIMKAH, marriage data can be integrated and stored online. It can be called from anywhere and anytime; of course, only admins or officers are authorized to access data. In addition to SIMKAH, there is also an online data collection system called Population Administration Information (SIAK) from the Ministry of Home Affairs of the Republic of Indonesia. There is the Online PNBP Information System (SIMPONI) from the Ministry of Finance of the Republic of Indonesia and the Case Tracking Information System (SIPP) from the Supreme Court of the Republic of Indonesia; these are examples of official government data that the general public can access.

C. Website: Wedding Management Website Example

The Wedding Management System or App needs to be as dynamic as possible and as easy to understand as possible for users. For example, a pop-up, alert, or warning can be read immediately, as shown in Figure 1. Below are opinions from several experts recognizing the definition of a website as follows: According to Yeni Susilowati (2019, p.4), a website is several web pages that have interrelated topics between one page and another, which are usually placed on a web server that can be accessed via the internet network or local area network (LAN). According to Yuhefizar, a website is all web pages in a domain containing information (Yanuardi & Permana, 2018, p.39). According to Sebok Vermat and team (2018, p.101), a website is a set of interconnected pages in which several items such as documents and images, are stored on a web server. From the above opinions, it can be concluded that a website is a collection of information or pages accessed via the internet, which everyone can use as long as they are connected online on the internet network. Another definition of a website is a set of pages incorporated into a domain or subdomain. Moreover, Figure 2 is an example of the Marriage Application used by the Ministry of Religious Affairs of the Republic of Indonesia.

![Fig 1. Example of an Alert on the SIMKAH Website 2024](source: simkah4.kemenag.go.id)
D. Service & Data Processing: Approaches to Wedding Service & Data Processing

According to Kotler (Laksana, 2018: 85), service is any action or activity offered by one party to another which is intangible and does not result in any ownership. According to Kotler (Laksana, 2018: 85), service is any action or activity offered by one party to another which is intangible and does not result in any ownership. According to Kotler (Laksana, 2018: 85), service is any action or activity offered by one party to another which is intangible and does not result in any ownership. Based on the description above, the researcher concludes that the KUA is a marriage service place.

According to Sutabri (2017, p.21), data processing is the manifestation of data into a useful and more meaningful form, in the form of information that can be used by people in need. According to Kristanto (2018, p.8), data processing is the time used to describe changes in the form of data into information that is useful. According to Syaripudin & Evicenna (2018, p.128), “Data processing is the manipulation of data into a form that is more useful and more meaningful than an event in the form of information”. Based on the description above, the researcher concludes that data processing is a manifestation of data to describe changes in a proper form that provides a report information system or calculation process of transforming input data into information that is easy to understand.

Furthermore, Marriage data processing at the Religious Affairs Office (KUA) involves several stages, including:

1. Data reception, data verification, and data validation of Marriage Certificate application files.
2. Determination of administrative fines for marriage registration and data management
3. Inputting marriage and divorce data, checking marriage and divorce.
4. Print marriage certificates and tidy up marriage documents and papers.

The four processes mentioned above represent the entire process carried out by the Religious Affairs Office (KUA) in the marriage administration process. These processes
will be converted into a marriage information system that simplifies the administrative process.

E. **Sublime Text**

Sublime text is a shareware text and source code editor for Windows, macOS, and Linux. It natively supports many programming languages and markup languages. According to Geovanne Farell et al. (2018, p.58), "Sublime Text is an editor application for code and text that can run on various operating system platforms using Python API technology." The Vim application inspired the creation of this application, which is flexible and powerful. The functionality of this application can be developed using sublime packages. According to Supono & Putratama (2018, p.14), "Sublime Text is a text editor used to run on various operating system platforms using Python API technology." Based on the description above, the researcher concludes that Sublime Text is a text editor or web editor software that is used to make editing an elegant, feature-rich, cross-platform, easy, and simple application.

F. **MySQL Databases**

MySQL is a prevalent open-source relational database management system (RDBMS). MySQL can be used for both small and large applications and is often used in web development. MySQL offers speed, reliability, scalability, and ease of use. In addition, MySQL also supports various popular programming languages and development drivers such as PHP, Python, Java, and others (10-15). MySQL is also part of the LAMP (Linux, Apache, MySQL, Perl/PHP/Python) web application software stack and is used by many well-known web applications and websites. MySQL is available under the GNU General Public License (GPL) and under various property licenses. (1-9).

Some experts say about MySQL: According to Subagia (2018, p.67), MySQL is an open-source database software often used to process databases using the SQL language (16-20). Enterprise (2018, p.2) states, "MySQL is a well-known database system that is open source and the most widely used today.

G. **Hypertext markup language (HTML)**

HTML (HyperText Markup Language) is a standard language for creating web pages and applications. It provides a means to structure the content on a web page, such as headings, paragraphs, lists, links, and other elements. HTML is often used in conjunction with technologies such as Cascading Style Sheets (CSS) and scripting languages to define the appearance and behavior of content. HTML consists of a series of elements that enclose or wrap various pieces of content, and these elements are described by tags
written using square brackets. HTML is the most basic building block of the Web, defining the meaning and structure of web content.

According to Rerung (2018, p.18), Hypertext markup language (HTML) is the basic language of web creation. HTML uses marks to mark parts of the text. HTML is a basic language because the web display feels bland when making the Web if only using HTML. According to Abdullah (2018, p.7), HTML stands for Hypertext Markup Language, a web standard language managed by W3C (World Wide Web Consortium) users in the form of tags that compose each website element. HTML is a website page structure that places each element according to the desired layout. HTML is a standard language used by documents on websites; HTML programming language uses tags (suffixes) that indicate a way of keywords. Most browsers recognize HTML suffixes, usually tags in pairs, each marked with the <> symbol. Moreover, according to Sidik and Husni (2017, p.10), HTML stands for Hyperlink Text Markup Language. HTML documents are pure text files that can be created with any text editor. This document is known as a web page. HTML documents are documents that are presented in a web surfer browser. This document generally contains information or application interfaces on the internet. Based on the description above, the research concludes that HTML is a basic web development language that is managed by users by W3C (World Wide Web Consortium) in the form of tags that compose each element of the website.

H. XAMPP

Enterprise (2017, p.2) states that XAMPP is the most widely used server application. Its features are complete. It is easy for beginner PHP programmers because you only need to run a module called Apache that can process PHP. XAMPP is an instant and complete web server application because it has everything you need to create a website. And Create a Content Management System (Joomla!) can be tried in this application. XAMPP is an AMP (Apache, MySQL, and PHP) installer package that is very easy to apply to computers that do not yet have a server to view sites created using the server language and database server. According to Iqbal (2019, p.15), "XAMPP is an Apache web server software which includes a MySQL database server and supports PHP programming". Hilmi Fuad (2018, p.2) states, "XAMPP is a software that functions to run PHP-based websites and uses MySQL data managers on local computers."

Based on the description above, the researcher concludes that XAMPP is the most widely used server to run PHP-based websites and use MySQL data processors on local computers.

I. Entity Relationship Diagram (ERD)

According to Al-Bahra, 2005 "Entity Relationship Diagram (ERD) is a diagram that shows information created, stored, and used in business systems." Entity Relationship Diagram (ERD) describes data modeled in a diagram used to document data by determining what each entity contains and how the relationship between entities is with each other (Rahmayu 2016, p. 34). According to Simarmata, 2010 "Entity Relationship Diagram (ERD) is the main data modeling tool and will help organize data in a project.
into entities and determine the relationship between entities." The process allows analysts to produce a database structure that can be stored and retrieved efficiently. The symbols in the ERD (Entity Relationship Diagram) are as follows:

1. Entity: a real or abstract thing with characteristics where we will store data.
2. Attributes: a characteristic common to all or most instances of a particular entity.
3. Relationship: a natural relationship that exists between one or more entities.
4. Link: a line connecting an attribute with a set of entities and a set of entities with a relation. (Fridayanthie & Mahdiati 2016, p. 132).

From the opinions of several experts above, it can be concluded that ERD is a network model that uses an abstract arrangement of data stored in the system.

J. Cascading Style Sheet (CSS)

CSS (Cascading Style Sheets) is a stylesheet language used to design the appearance of web pages written in HTML or XML. CSS is used to manage the appearance of elements on a web page, such as color, size, font type, layout, and others. CSS separates content and presentation, making developing and maintaining web pages easier. CSS also supports various units of measurement and functional notations and has concepts such as specificity, inheritance, and cascade. CSS is one of the core technologies of the open Web and has been standardized across web browsers. CSS can be used in conjunction with HTML and JavaScript to create interactive and engaging web pages. According to Didik (2017, p.116), "CSS is short for Cascading Style Sheet. CSS is one of the programming codes that aims to decorate and organize the display style/layout of web pages to make it more elegant and attractive". According to Johani S Pasaribu (2017, p.158), CSS stands for cascading style sheet, a collection of commands from various sources arranged in a certain order to overcome style conflicts.

K. Data Flow Diagram (DFD)

Data Flow Diagram (DFD) is a graphical representation used to show data flow through a process or system. DFDs help to understand, optimize, and implement processes or systems easily. DFDs consist of standard symbols, such as circles (process), rectangles (data store), lines (data flow), and others. DFDs can be divided into two main types:

1. Logical Data Flow Diagram: This shows the flow of data through the system as a whole without discussing its physical implementation.
2. Physical Data Flow Diagram: This shows the implementation of the logical diagram, including data flows, processes, and data stores.

DFDs can be used to analyze existing systems or to model new ones. DFDs enable easy system development and maintenance, allowing users to visually see the flow of data and processes. DFDs can be easily described and can be used by both technical and non-technical audiences, from developers to CEOs. DFDs have been favored but are more suitable for data flow systems that are not very interactive, real-time, or database-oriented. According to Rusmawan (2019, p.52), a Data Flow Diagram (DFD) is a network that describes an automated or computerized system, manual, or a combination of the
two whose depiction is arranged in the form of a collection of system components that are interconnected according to the rules. According to Sukanto & Shalahuddin (2018, p.70), a Data Flow Diagram (DFD), or in Indonesian, a Data Flow Diagram (DAD), is a graphical representation that describes the flow of information and information transformation applied as data flowing from input and output.

Maniah and Hamidin (2017, p.44) suggest a data flow diagram (DFD), especially for describing operational systems where system functions are essential and complex compared to the system's manipulation data. The advantages of DFD are that it is easy to understand by technical and non-technical people, provides a comprehensive system overview, complete with the scope of the system and relationships to other systems, and provides a detailed view of system components. Based on the description above, the researcher concludes that DFD is an analysis and design tool that is a structured graphical representation that describes the flow of information and transformation of process information that occurs in the system to be developed.

3. METHOD

A flowchart or Data Flow Diagram (DFD) can represent the method used to show how the system or application is built, as shown in Figures 3 and 4.

![Fig 3. Data Flow Diagram Level](image)

![Fig 4. Data Flow Diagram Level 0](image)
4. RESULT AND ANALYSES

The process of analyzing and delivering results in this research is directly shown with several examples of web pages with various views and specific functions and coupled with a management system in the form of forms that need to be filled in by users, staff, or admin. Figure 5 shows the main page of the KUA Web Pasar sub-district, Jambi. All components are illustrated with PHP, MySQL dB connection, and HTML. To make a more flexible and beautiful display, you can use JavaScript and JSON.

![Fig 5. Main Page Display](image)

Moreover, Figures 6, 7, and 8 display the profile page, vision and mission, KUA Pasar, and Jambi’s staff or organizational structure.

![Fig 6. Profile Page Display](image)
Figure 9 is the Marriage Registration table with the requirements and number of accompanying documents. Figure 10 shows how to log in for those who already have an account and those who do not before entering this website.
CARA LOGIN

Memiliki Akun
Calon Pengantin dapat masuk ke website dengan login pada halaman login dengan cara memasukkan Username dan password yang telah terregistrasi pada halaman registrasi
Klik tombol "Login" dibawah untuk masuk pada halaman login

Belum Memiliki Akun
Apabila belum memiliki akun, Calon pengantin dapat melakukan registrasi atau daftar akun pada halaman registrasi dengan memasukkan Nama, nomor telepon, username, password dan foto diri, setelah registrasi berhasil calon pengantin dapat melakukan login pada halaman login
Klik tombol "Daftar Akun" dibawah untuk masuk pada halaman registrasi

Kantor Urusan Agama Kecamatan Pesar

Fig 10. How to Login View

CALON PENGANTIN

Halaman Log In
Isi username & password Anda untuk login

Username
Password
Masuk
Halaman Utama
Cara Login

Kantor Urusan Agama Kecamatan Pesar

Fig 11. Login Page for Brides-to-be
Fig 12. Account Registration on the KUA Application for Pasar District

Specifically, the data in the Registration Account on the KUA Application for Pasar District Jambi, Figure 12, for example, is the Registration Account on the Prospective Groom Data and Prospective Bride Data and Login, the system of Fill the form using Character and Upload Photos. So, it needs to be specifically HTML Code that is able to function appropriately and correctly. Moreover, Figure 11 is an example of the Login page of a bride-to-be consisting of Username and Password. The registration view can be seen in Figure 13. Other specific components or themes for the wedding schedule can be shown in Figure 14. Figure 15 is the result of the registration view, and Figure 16 is the Contact view. Moreover, Figure 17 is the admin page, Figure 18 is Display of Add Category Data, Figure 19 is Display of Add Requirement Data, Figure 20 is a list of prospective brides who have registered and entered the system, and Figure 21 and Figure 22 are Proof of registration or registration report.
Fig 13. Registration View for Prospective Brides

Fig 14. Wedding Schedule View

Fig 15. Bride-to-be registration result display
Fig 16. Contact View

Fig 17. Admin Login View

Fig 18. Display of Add Category Data
Fig 19. Display of Add Requirement Data

Fig 20. Bride-to-be Data Display

BUKTI PENDAFTARAN

I. IDENTITAS CALON PENGANTIN
   1. CALON PENGANTIN LAKI-LAKI
      NAMA : Kholifatur Ridho
      TEMPAT TGL LAHIR : Jambi, 2022-12-15
      STATUS : Perjaka
      ALAMAT : Jln. raya pudaik, rt10 no.28 kec.kumpe ulu, kab muaro jambi

   2. CALON PENGANTIN PEREMPUAN
      NAMA : Khoiroten Nisa
      TEMPAT TGL LAHIR : Muara Bulan, 2022-12-14
      STATUS : Gadis
      ALAMAT : jaammm

II. TEMPAT AKAD NIKAH
   1. Dinurah Akimat Kantor Urusan Agama Kec Pasar Jambi (Tangail 2022-12-26, Hari Selasa dan Jam Ditentukan Oleh Petugas)
5. CONCLUSION AND SUGGESTION

After discussing the Marriage Service Management Application at the Market District Religious Affairs Office, the researcher can draw the following conclusions:

[1] This Marriage Service Management Application at the Office of Religious Affairs of Pasar District was built using web programming language and MySQL as the database. [2] This Marriage Service Management Application at the Office of Religious Affairs of Pasar District is a way to facilitate the KUA in providing...
information to the community. [3] This Marriage Service Management Application at the Office of Religious Affairs of Pasar District makes it easier for the community to get information from the KUA. [4] Application of Marriage Service Management at the Office of Religious Affairs of Pasar District can present profile information and online registration. [5] The Marriage Service Management Application at the Office of Religious Affairs of Pasar District can display marriage reports and reports on receiving NR requirements. Moreover, the suggestions that can be put forward in a Marriage Service Management Application can be appropriately developed as follows: [1] Before implementation, infrastructure preparation must be carried out, such as providing a computer that matches the specifications. This application can be run properly. [2] Organizing training for staff in charge of processing and managing an existing Marriage Service Management Application at the Office of Religious Affairs of Pasar District. [3] Users are expected to know good computer users so that errors do not occur when running the program. Conduct socialization with KUA officers so people can find out and use this system.

6. ACKNOWLEDGMENTS
Thank you to all those who have helped make marriage management applications at the KUA Pasar sub-district, Jambi City; we especially thank the KUA Pasar sub-district. Hopefully, this application will be helpful for all parties, especially the KUA Pasar District, Jambi City. I also want to share it with all colleagues and colleagues with the same discipline so that it can be a good reference for everyone.

AUTHOR CONTRIBUTIONS
All Authors are responsible for building Conceptualization, Methodology, analysis, investigation, data curation, writing—original draft preparation, writing—review and editing, visualization, supervision of project administration, funding acquisition, and have read and agreed to the published version of the manuscript.

CONFLICTS OF INTEREST
The authors declare no conflict of interest.

REFERENCES
The authors declare no conflict of interest.


