Implementation Acceptance Data Management Using Qr-Code

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ABSTRACT

In the Medan johor sub-district, currently the filing management system is still manual, such as currently outgoing letters are still carried out in writing and if files are to be searched, they are still done manually by opening a ledger to see the file number or code so that document data is often inaccurate, The loss of documents then the problem of filing an ektp is still done manually for receipt of application for making an e-ktp so there is a need for a system that can record documents and perform computerized management of archives so that staff can easily manage the available archives. The author will implement a manual system that becomes computerized and a web-based system using Qr code technology with the aim that the archival processing system can be easily seen, managed, found and reused and minimizes loss of data required for future needs. This research is implemented by developing software, namely Extream Programming. System development is made faster and reduces costs from software changes.
Keyword : Qr Code, Documents, Systems, Extream Programming

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1. INTRODUCTION

In the current era of globalization, the need for information is increasingly high and continues to grow(Cole, 2020), so that various kinds of companies, ranging from small, medium, and top companies have made changes such as computerized systems in their companies (Simangunsong, 2018), such as an archive system or record of activities in an organization is very important to be maintained and managed(Bartliff et al., 2020)(Al-Khowarizmi et al., 2020). Poor management of records in an institution or office will have a negative impact on the performance of the office and management of records properly can support administrative activities to make it run smoothly(Susanti, 2017). Speed and accuracy of getting the information contained in the archive will affect the quality of leadership decision making (Imasita et al., 2015). A company or institution, both government and private companies will produce archives (Fathurrahman, 2018). Archives are evidence of company activities and are also the memory of the company in question. Therefore, archives need to be arranged in accordance with good archiving procedures so that the archives are maintained in their physical integrity and information (Iswandi et al., 2019).

Archival documents will continue to grow over time and the activities and functions of agencies will become increasingly complex(Setyawan & Mada, 2020). Therefore, archives need to be well organized with computerization to build effective, efficient, and productive organizational management for the advancement of the institution(Simangunsong, 2018). Of course, this must be in accordance with correct filing procedures so that the archives are preserved with their information and physical integrity. When the information is computerized(Hack et al., 2020), accessing it will be easier and faster. This is an advantage of information technology for its users(Saifudin & Setiaji, 2019).

In the Medan johor sub-district, currently the archiving management system is still manual, as currently outgoing letters are still carried out in writing and if files are to be searched, they are still done manually by opening a ledger to see the file number or code so that document data is often inaccurate The loss of documents then the problem of filing an e-ktp is still done manually for receipts for filing an e-ktp application so there is a need for a system that can record documents and perform computerized management of archives so that staff can easily manage the available archives (F, Fauzi; Al-Khowarizmi,

2020). The author tries to develop a manual system that becomes computerized and a web-based system using Qr code technology. In development and software development the author uses the method Agile Development which is a set of software development methodologies based on iterative development, where requirements and solutions develop through collaboration between organized teams (Reichwein et al., 2020).

The purpose of this research is with the archiving processing system can easy to see, manage, find and use. Back and minimize loss of data needed for future purposes.

2. RESEARCH METHOD

The stages of research carried out in completing this design are:

1) Library Research
   At this stage, information and references are searched through books, the internet, or other materials related to the topics discussed, such as data collection on archival letters in the Medan johor sub-district.
2) Data collection
   At this stage, collecting materials in the form of hardware, software and books related to the design made.
3) System design analysis
   At this stage using the stages of the extream programming methodology which includes stages planning, system requirements, system design and system testing and summarizing them so that conclusions can be drawn which are used as benchmarks for system development and development.
4) System implementation and testing
   At this stage, implementation and system testing is carried out based on the design carried out in the previous stage.

In designing the system the author uses UML (Unified Modeling Language) modeling so that it can make it easier to implement the system. Uml isvisual modeling method for object-oriented system design means with a goal Can provide a visual modeling language to users of a wide variety of programming and engineering processes and can provide models that are ready to use, is an expressive visual modeling language for developing systems and for easily exchanging models (Al-Khowarizmi, 2020).

1) Use Case Diagram

Usecase diagrams are used to define the functional requirements of the system(El-Attar, 2019). To describe the interaction between the user and the system, it can be seen in the use case diagram below:

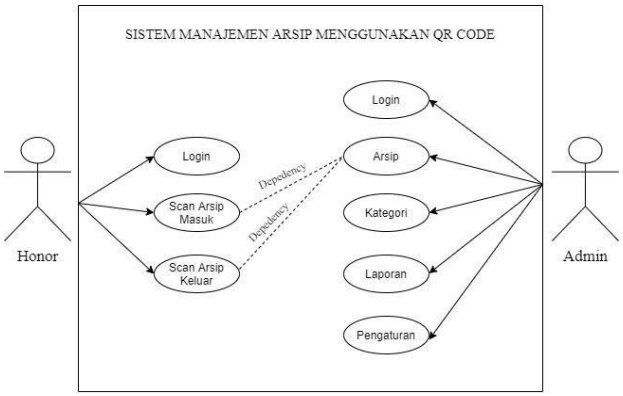

Fig 1. Use Case Diagram System

2) Sequence Diagram

- Sequence diagram entry archive

Sequence The entry archive diagram in the image below explains the admin who processes the incoming archive data on the system, as in the following figure.

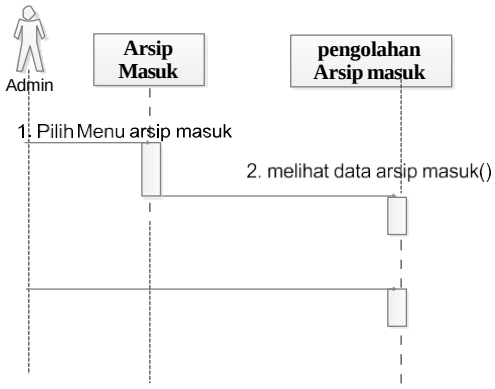

Fig 2. Sequence Diagram entry archive

Figure 2 describes the admin who can see the incoming archive data on the system.

- Sequence Diagram Scan Qr code

In the sequence diagram the scan Qr code is a procedure of activity performed by a user when scanning incoming and outgoing archives.

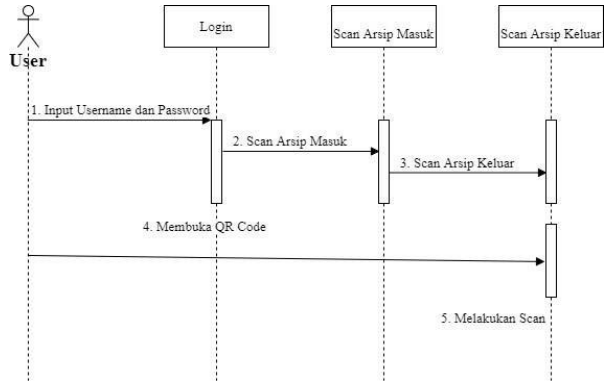

Fig 3. Sequence Diagram Scan Qr code

- Sequence Diagram archive out

Sequence Out archive diagram in the image below describes the admin who performs outgoing archive data processing on the system, as in the following image.

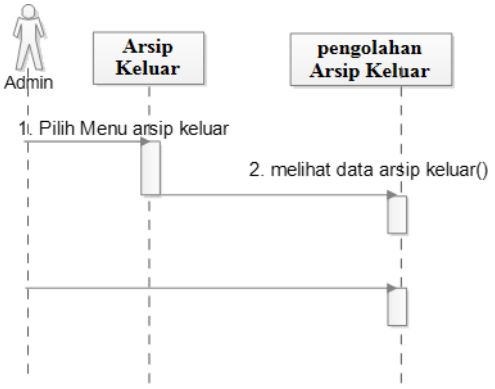

Fig 4. Sequence Diagram archive Exit

Figure 4 describes the admin who can see the outgoing archive data on the system.

3. RESULTS AND DISCUSSION

This chapter will implement and test the system. This stage is carried out after the design is complete and will then be implemented in a programming language. After implementing it, the system is tested and the deficiencies in the application are seen for further system development. In this study, in developing a system for data collection that aims to perform archival data management in the Medan johor district. So in this chapter the author will display (screen capture) each display of the software that has been implemented. After the system is analyzed and designed in detail, it will go to the implementation stage. Implementation is the stage of laying down the system so that it is ready for operation. Implementation aims to confirm the design modules, so that users can provide input to the system builder. The results of research conducted by the author are in the form of a program or application that can perform archival data management.

A. Login Menu Display

In the user login menu on the system, there is a username and password form, username is a user id that has been registered in the database, username is also an identity that is second to none in an application if you have used a certain id when registering for an application, other people cannot register with it. same id. As in the following figure.

Fig 5. System login Menu display

Based on Figure 5, it will be explained that in the user login view, the first thing the user must do is enter the login page/main display page of the system. Then fill in the username and password on the login form.

B. Main Menu Display

The main menu display will display all the menus on the system in carrying out data collection which aims to perform archival data management in the Medan johor sub-district using Qr Code technology. on this system will display menu menus such as categories, incoming archive data, outgoing archive data, reports. The following is the main menu display that is ready to be implemented, see Figure 6 below.

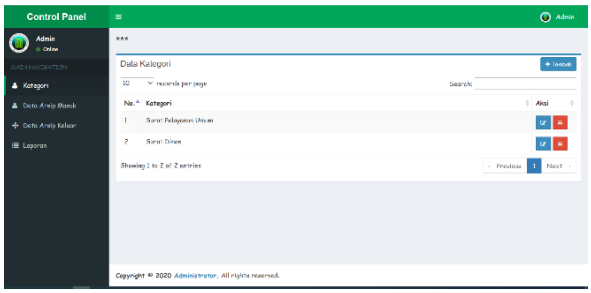

Fig 6. Main Menu Display

At figure 6 can be explained:

- Category menu is a menu that contains categories of archive data
- The menu of incoming archive data serves to collect incoming archive data
- Out archive data menu which functions to perform outgoing archive data collection
- The report menu serves to view and print reports

C. File Menu Display Sign

The archive data menu display will display the incoming archive data that has been successfully added by the system using Qr code technology, here is a menu display of incoming archive data that is ready to be implemented, see Figure 7 below.

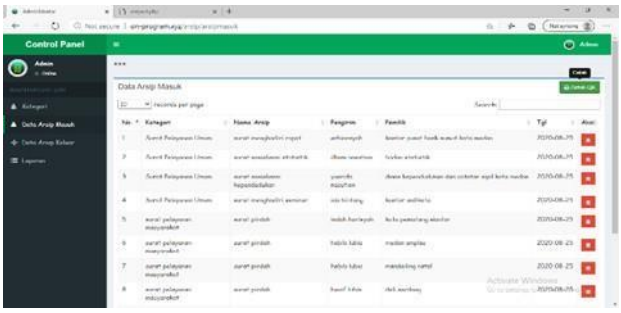

Fig 7. Menu Display Sign Data

D. File Menu Display Out

The outgoing archive data menu display will display the outgoing archive data that has been successfully added by the system using Qr code technology, here is a menu display of outgoing archive data that is ready to be implemented, see Figure 8 below.

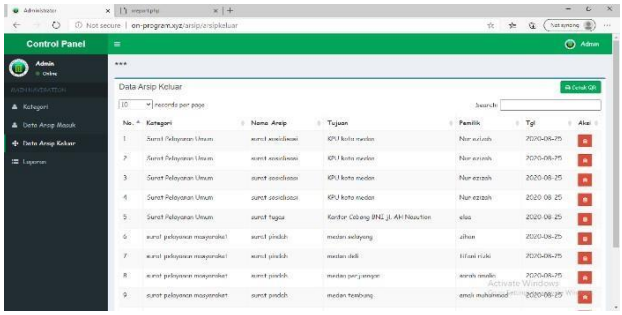

Fig 8. Menu Display Out Data

E. Entry Mail Input

In the archive entry form, it will display the code from the Qr code that has been scanned, then there is a category form, archive name, sender, letter origin and upload button. As in the following figure.

Fig 9. Display Entry Mail Input

Based on figure 9 it will be explained that in recording the incoming archives, you must first scan then fill in the data form letter name, sender and origin of the letter.

F. Display Archive Mail Exit

In the outgoing archive form display will display the code from the Qr code that has been scanned, then there is a category form, archive name, sender, letter origin and upload button. As in the following figure.

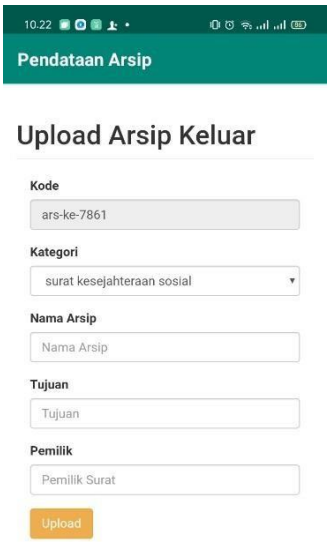

Fig 10. Display Archive Mail Exit

Based on Figure 10, it will be explained that in recording the outgoing archives, you must first scan.

G. Display Scan Qr Code

In the scan qr code display will display the camera on the smartphone that is used for scanning. As in the following figure.

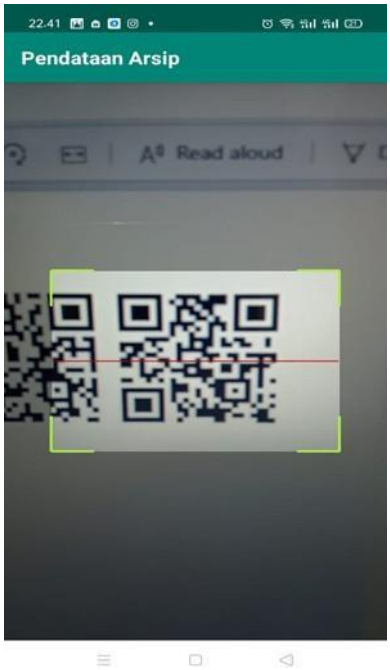

Fig 11. Display Scan Qr Code

Based on figure 11, it will be explained that in recording incoming and outgoing archives using Qr code technology so that scans can be performed.

4. CONCLUSION

In the description of a series starting from the process of making an archival data management system using a web-based Qr code, several important conclusions can be drawn, including.

1. Produce a system that makes it easy to manage incoming and outgoing archive data.
2. Reduces data accumulation in and out of archives.
3. Reducing archival data manipulation activities.
4. The application of agile development methodology especially extreme programming in the development of archiving systems using web-based QR codes in Medan johor sub-district can produce a quality information system in a short time.
5. Utilizing Qr Code technology to record incoming and outgoing archives so there is no manipulation of archive data and minimize loss of data needed for future purposes.

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