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Management Information System Design Village Finance (case study of kelambir v kebun village)

Arpan¹ arsevent@pancabudi.ac.id

^{1,3} Program Computer Systems, Faculty of Science and Technology, Universitas Pembangunan Panca Budi.

Jl. Jend. Gatot Subroto Km. 4,5 Sei Sikambing Kota Medan

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ABSTRACT

Fund allocation for each village is adjusted to a number of criteria. The problem that arises is that the mechanism and use of funds have not been properly recorded. This problem can be overcome by presenting good and transparent information, for this reason a village fund information system is needed for managing village funds using the waterfall method. This information system is very useful for monitoring village funds and absorption carried out by each village in real time, as well as providing information for the village head and policy makers in Klambir Lima Kebun Village to determine a policy. The system built is a system that discusses the Information System for managing village funds in Klambir Lima Kebun Village, a system design model in the form of a use case diagram, data storage structure and application display design using the PHP programming language and a database using MySQL, where the system has been built, the village officials of the five plantations will find it easier to process managing village funds and village fund allocation so that it is faster, more effective, effective, efficient and transparent. This system can handle the process of filling in data, changing data, deleting data, searching for data and reporting money data as well as providing information on village fund management in the village of Kelambir Lima Kebun.

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Corresponding Author:

Arpan

Computer Systems Study Program, Faculty of Science and Technology Panca Budi Development University. Jl. Gen. Gatot Subroto Km. 4.5 Sei Sikambing, Medan City. Email: arsevent@pancabudi.ac.id

1. INTRODUCTION

The village is the smallest community association led by the village head to regulate all government activities in the village. The government is always trying to develop the country from the village because the village is the smallest government association that is able to develop the economy

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both through the agricultural sector, trade and various other incomes which of course can help the growth of the Indonesian economy.

In carrying out management activities, the village government also needs management, be it human resource management, natural resource management, trade management, agricultural management, and the most orderly, namely financial management, the existence of a management is very necessary in developing village growth that reaches Currently, the reality is that village management has not been well managed, so creativity is really needed from management to manage the village both in terms of agriculture and accountability of the village. Currently, many village governments do not comply with community expectations, such as the vision and mission planned by village head due to the inability of human resource management to manage village finances.

In financial management, the Klambir Five Gardens village still uses manual recording and calculations, namely still using Microsoft Excel, and the use of a computerized system has certainly caused various problems. Manual recording makes the time required for processing and presenting financial reports more. Apart from that, recording manually can reduce the accuracy of reports that will be made later, so that it demands high accuracy because if an error occurs it will be difficult to find the error and even have to start over from the beginning of recording (Mulyani, H. S., & Sudirno, D. 2021).

Another problem that occurs in Klambir Lima Kebun Village is that every month it requires a report on finances, so it can be concluded that using a manual system will result in difficulty and slowness in finding the required data. After knowing the various shortcomings and problems that can arise from manual accounting recording systems, using a computerized system is the answer for faster, more accurate and more efficient data processing. In order to develop and efficiency the performance of the village government, it is necessary to have a design and implementation of a financial information system so that it can easily help village leaders check financial reports in determining policies or decisions to improve the quality of the village government in financial reports including money coming in and money going out. (Yanuardi & Permana, 2019).

By using this web application, admins can monitor the use of funds and availability so that work activities and accountability reporting are carried out well. Based on the background that has been explained, the author hereby takes the title: "Design and Development of a Village Financial Management Information System (Case Study of Kelambir V Kebun Village)".

2. RESEARCH METHOD

Research in building a village financial information system has several stages which are depicted in figure 2.1.



Figure 1. Research Stages

Figure 3.1 explains the steps that need to be taken in completing the system design. The research stages are arranged so that the research and research results make an appropriate contribution. This aims to ensure that mistakes do not occur in carrying out the research. The following stages are the procedures taken in conducting this research:

- 1. The problem formulation is determined as determining the problem that will be resolved using the information system.
- 2. Determining objectives is the activity and direction of the research carried out.
- 3. Literature study is a search for references related to information systems. The feasibility of the study was obtained from journals, the internet and books related to the method used.
- 4. Data collection was carried out by obtaining the data used in the five plantation companies.
- 5. Analysis is carried out to determine the technique for solving a problem formulation and compare it with the previous method. The design is carried out based on criteria in village fund finance.
- 6. System design aims to determine the model used in creating the website.
- 7. Website creation aims to create a system that can communicate with users in real time.
- 8. The discussion functions to review the results that have been produced. Discussions were carried out to provide synchronization.
- 9. System Testing is testing a website that has been created using the PHP programming language to determine the advantages and disadvantages of the system.

2.2. Method of collecting data

Data is an object that is processed in an information system. This data is very important in providing information system processing results. The data in the information system that was built was taken from sample data in the Kelambi Lima Kebun village. The data functions so that the application program can carry out its duties in recording village finances.

The following are the stages of data collection in research in obtaining data, including: a) Literature Study

Literature study is learning carried out based on theory and literature in the library. This data collection method is carried out by studying, reading and searching for various existing references, be it books, journals, papers, etc. so that they can be taken and compiled into test data that suits your needs.

b) Interview

The author conducted interviews at the village office with people related to village financial records. This interview was conducted to obtain data and a model approach for recording village finances.

c) Observation

Observations are carried out to obtain complete data so that village finances can be recorded neatly.

2.3. Research Modeling

The description of the research was carried out using several diagram models. Each diagram model shows a different function. There are several diagrams used in this research, including:

- 1. Use Case Diagrams
- 2. Activity Diagram
- 3. Sequence Diagrams

4. Class Diagrams

3. RESULTS AND DISCUSSIONS

3.1. Website Application Results

The resulting website application is built based on a previously designed design. There are several displays on the website. The following will explain further each page display used in this research. Figure 4.1 is a display of the program interface design.

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×	Apache			Start	Admin	Config	Logs	Shell	
×	MySQL			Start	Admin	Config	Logs	Explorer	
×	FileZilla			Start	Admin	Config	Logs	Services	
	Mercury			Start	Admin	Config	Logs	😣 Help	
×	Tomcat			Start	Admin	Config	Logs	Quit	
22:36:01	(main)	Initializing	Control Panel						
22:36:01	[main]	Windows	Version: Home	64-bit					
22:36:01	main	XAMPP V	ersion: 5.6.30						
22:36:01	[main]	Control Pa	nel Version: 3.2	2 [Comp	led: Nov 12	th 2015 1			
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Figure 2. Program Interface Design

3.1.1. Login Menu Page

The login menu page functions to access admins who have registered in the information system. Figure 4.2 is a display of the login menu page.

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Figure 3. Login Menu Page

4.1.1 Dashboard Menu Page

The dashboard menu page is the homepage of the financial information system for Klambir Lima Kebun Village. Figure 4.3 is the result of the home menu display.



Figure 4. Dashboard Menu Page

4.1.2 Transaction Data Menu Page

The financial information system menu page for Klambir Lima Kebun Village, the input menu for incoming and outgoing money transactions on this page includes adding, changing and deleting data. Figure 4.4 and figure 4.5 are displays of the income and expenditure menu pages, and the design for inputting transaction data types.

Keuangan DesaApp	=				8	Fannya musdalifa - admi	nistrator 🕞 LOGOUT
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2 DASHBOARD						Search:	
DATA KATEGORI					JE	NIS	
DATA TRANSAKSI	NO	TANGGAL	KATEGORI	KETERANGAN	PEMASUKAN	PENGELUARAN	OPSI
	1	02-01-2023	Keperluan Kantor	kegiatan desa		Rp. 3,400,000 ,-	•
REKENING BANK	2	02-01-2023	BUMDES	hasil penjualan pupuk	Rp. 30,000,000 ,-		•
👹 DATA PENGGUNA 🧹 🤇	3	14-12-2021	Hasil pendapatan desa	Hasil penjualan UMKM	Rp. 15,000,000 ,-		0 0
LAPORAN	4	29-04-2022	Proyek pembangunan desa	Proyek pembangunan jalan di desa		Rp. 160,000,000 ,-	0 0
GANTI PASSWORD	5	29-05-2022	Proyek Kegiatan desa	Kebutuhan kegiatan desa		Rp. 134,000,000 ,-	0 0
	6	29-11-2022	Gaji staf desa	Gaji Bayar listrik dan wifi		Rp. 8,900,000 ,-	•
	7	30-08-2022	Bayar Listrik	Bayar listrik dan wifi		Rp. 5,000,000 ,-	• •
	8	01-08-2022	Proyek pembangunan desa	Bantuan pemerintah dana untuk pembangunan desa	Rp. 340,000,000 "-		•
		30.07.2022	Gali staf dora	neneralian staf dosa		Ro 9.000.000 -	100



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		i			👔 Fannya i		
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		20-04-20	- Pilih -	~	720	Rp. 4,560,000 ,-	0 0
	2	19-04-20	Nominal		p. 230,500,000		0 0
	3	17-04-20	Masukkan Nominal			Rp 5,400,000 ,-	
	4	16-04-20			14	Rp. 46.003.000 ,-	0 0
	5	13-04-20			383	Rp. 3,640,000 ,-	
	6	11-04-203	Rekening Bank		-	Rp. 16,700,000	•
	7	03-04-20	- 19100 -	v		Activate Window	WS Windows
	8	27-03-20			13 400 000 -		

Figure 6. Transaction Data Type Input Design

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The category menu page on this page includes adding, changing and deleting category data as shown in Figure 7. This is a display of the following page:

Keuangan DesaApp	=		👔 Fannya musdalifa - administrator 🛛 🤒 LOGG	ou
Fannya musdalifa © Cnine	Kat	gori Data kategori	🚳 Harne - Dashba	oar
	Kat	gori Transaksi Keuangan	+ Tambah Kabagor	
2 DASHBOARD			Search:	
🖿 DATA KATEGORI	NO	NAMA	OPSI	
🖿 DATA TRANSAKSI	1	Bantuan pemerintah		
	2	Bayar Listrik		
REKENING BANK	3	Bayar wifi		
🖀 DATA PENGGUNA 🛛 <	4	Biaya Tak Terduga		
LAPORAN	5	BUMDES		
GANTI PASSWORD		C. Station		
		Gaji stat desa	0 8	
	7	Hasil pendapatan desa	• •	
	8	Keperluan Kantor		
	9	KOPERASI		

Figure 7. Category Menu Page

4.1.4 User Data Menu Page

There are several sections on this page. This page shows complete village staff user data owned by Klambir Lima Kebun Village. The menus on this page include adding, changing and deleting village staff data. Figure 4.7 is the user menu page.

Keuangan DesaApp	-				👔 Fannya	a musdalifa - administrator 🛛 🔂 LC
Fannya musdalifa • Online	Pengguna 🛛	kata Pengguna				🔒 Home > Das
MAIN NAVIGATION		Pengguna			•	Tambah Pengguna Baru
2 DASHECARD					Search:	
🖿 DATA KATEGORI		NO NAMA	USERNAME	LEVEL	FOTO	OPSI
DATA TRANSAKSI		1 Fannya musdalifa	admin	administrator		•
HUTANG PIUTANG <						
REKENING BANK		2 Maimun	manajemen	manajemen	0	0 0
👹 DATA PENGGUNA 🧹					_	
LAPORAN		3 samsul	samsul	administrator	0	
GANTI PASSWORD						
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					_	
		Showing 1 to 4 of 4 entries			Pri	evious 1 Next

Figure 8. User Data Menu Page

4.1.5 Accounts Payable Menu Page

There are several sections on this page. This page shows complete data on debts and receivables owned by Klambir Lima Kebun Village. The menus on this page include adding, changing and deleting accounts payable and receivable data. Figure 4.8 is the accounts payable and receivable menu page.

Fannya musdalife Piutang Duta Plutang Bolaw Bolass sensoros Bolassano		88 Ho + Ta	me > Dashboard
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A DACHROARD			
LED DASHDOARD		Search:	
DATA KATEGORI NO KODE TANGGAL	KETERANGAN	NOMINAL	OPSI
DATA TRANSAKSI 1 PTG-0001 16-12-2022 Hutang ole	h pak rahman akan dipotong gajian ahir bulan	Rp. 500,000 ,- 📀	
C HUTANG PIUTANG C 2 PTG-0003 16-12-2022 Hutang ole	h pak riski untuk beli pulsa akan dipotong gajian ahir bulan	Rp. 70,000 ,- 📀	•
REKENING BANK 3 PTG-0004 03-11-2022 Pinjaman c	leh pak agus untuk berobat anak pak kepling sudah dipotong gaji tanggal 25 bulan november 2022 sebesar Rp.350.000.	Rp. 0 ,- 🔹	
A PTG-0005 08-12-2022 Hutang ole	h saiful untuk kebutuhan bayar sewa rumah dipotong ahir bulan gajian	Rp. 500,000 ,-	•
CAPORAN GANTI PASSWORD GANTI PASSWORD Showing 1 to 4 of 4 entries		Previous	1 Next
😝 LOGOUT			

Figure 9 Payables and Receivables Data Menu Page

4.1.6 Print Financial Report Menu Page

There are several sections on this page. This page shows financial report data. Figure 4.9 and figure 4.10 are the printed page of the financial report and the printed page of the PDF report.

Keuangan DesaApp	=								(🔋 Fannya musd	lalifa - administrator	C LOGOUT
Fannya musdalifa • Online	LAPO	RAN Data Lapor	ran								🙆 Hom	e > Dashboard
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4 DASHBOARD	Mulai Ti	anggal		s	Sampai Tangg	gal		Kategori				
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DATA TRANSAKSI		D										
	Lapon	an Pemasukan a	& Pege	eluaran								
REKENING BANK	DARIT	TANGGAL		2022/01/02								
	SAMP	AI TANGGAL	-	2022/12/30								
T DATA PENGGUNA C	KATEO	JORI		SEMUA KATEGORI								
LAPORAN	D cro											
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	1	18-11-2022	Sewa	gedung		Gedung milik desa			Rp.	1,000,000 ,-		
	2	20-12-2022	Keper	luan Kantor		Beli Alat Kantor					Rp. 500,000),-
	3	17-11-2022	Lahan	sawit Desa					Rp.	1,500,000 ,-		

Figure 10. Print Financial Report Menu Page

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ari 2				— 🕂 Perbesaran Otomatis 🗠		
				SISTEM INFORMASI KEUANGAN		
			L	APORAN KEUANGAN DESA KLAMBIR LIMA KEBU	JN	
	DAR	TANGGAL : 0	2-01-2022			
	SAM	PALTANGGAL : 3)-12-2022			
	KATE	GORI : S	EMUA KATEGORI			
					JE	INIS
	NO	TANGGAL	KATEGORI	RETERANGAN	PEMASUKAN	PENGELUARAN
	1	18-11-2022	Sewa gedung	Gedung milik desa	Rp. 1,000,000 ,-	1 A A A A A A A A A A A A A A A A A A A
	2	20-12-2022	Keperluan Kantor	Beli Alat Kantor		Rp. 500,000 ,-
	3	17-11-2022	Lahan sawit Desa		Rp. 1,500,000	
	4	16-12-2022	Sewa gedung	Pembayaran sewa	Rp. 13,570,000 ,-	
	5	24-11-2022	Sewa gedung	Pemasukan sewa lahan	Rp. 20,000,000 ,-	
	6	16-12-2022	Tunjangan staf desa	Biaya Berobat Pak RT		Rp. 200.000
	7	24-11-2022	Sewa gedung	hasil pemasukan penyewaan gedung	Rp. 4,000,000 ,-	
	8	18-11-2022	BUMDES	Penghasilan dari Bumdes	Rp. 10,000,000 ,-	
	9	08-12-2022	Proyek Kegiatan desa	Untuk kegiatan desa		Rp. 32,000,000 ,-
	10	10-12-2022	Bayar Listrik	biaya rutin bulanan		Rp. 300.000
	11	13-12-2022	Proyek Kegiatan desa	Biaya pekerjaan kantor	100 C	Rp. 300,000
	12	09-12-2022	Lahan sawit Desa	ladang sawit desa	Rp. 200,000,000 ,-	
	13	04-12-2022	Bantuan pemerintah	anggaran dana desa	Rp. 200,000,000 ,-	
	14	13-10-2022	Bantuan pemerintah	anggaran dana desa	Rp. 50,000,000 ,-	
	15	21-10-2022	Proyek Kegiatan desa	Proyek pembangunan desa		Rp. 40.000.000
	10	09-02-2022	Bantuan pemerintah	Kegiatan desa	Rp. 200,000,000 ,-	
	47	DE 00.0000	Description of the state of the second	keelataa daga		Ro. 190.000.000 .

Figure 11. Report Print Page

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4. CONCLUSION

- a) The village financial data information system is carried out using an application in the form of a website.
- b) The financial data used as samples for the experimental data were taken from village finances available at the village office.
- c) All data recording is stored in the village financial data which can be modified if errors occur in accordance with applicable agreements and regulations.
- d) The system can help manage village finances with existing features, namely data categories, incoming and outgoing money data, data and reports.

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