# School SPP Payment Information System Multiuser Based (Case Study of SMA PGRI 1 Purwodadi)

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Abstract. In the current era of globalization, computer users are increasing greatly. Almost every job in school institutions uses computer tools, as is the case at SMA PGRI 1 Purwodadi which is located on Jl. R. Soeprapto No. 34 really need to use a computer. Especially in the school library section which has not been able to utilize sophisticated computer technology in recording school tuition payments. The problem that is often encountered is that in the data processing process, errors are still found during recording in carrying out tuition payment transactions because they are still processed manually by recording them in the book one by one so that the resulting school tuition payment calculations are less accurate. With these problems, the author tries to formulate the problem, namely how to create a computerized school tuition payment program and use a multiuser-based program at SMA PGRI 1 Purwodadi in order to process data more quickly with a minimum error rate. In writing this thesis, the author used Visual Basic 6.0 software and the data base used Microsoft Access

Keywords: SPP, Multiuser based school

## **1. INTRODUCTION**

In the current era of globalization, many people are involved in the world of sophisticated information technology to support human activities in daily life to make life better. One form of development of computer technology is the increasing development of information system technology in real life information system applications. An information system is a computer-based work series that is capable of processing and managing existing data to produce quality and useful information.

Many schools and universities, both government and private, have implemented information systems as an effort to improve the quality of work, services and, more importantly, to achieve the goals of the business sector itself. At SMU 1 PGRI Purwodadi Grobogan, the address is Jl. . R. Sueprapto No. 34 Working system Payment is made by students coming directly to pay at the payment administration. The computer is currently on

With a relatively large number of students, namely 570 students from class 1 to class 3, the data used at SMU PGRI 1 Purwodadi Grobogan still uses conventional recording or book recording, which can result in errors in recording payments with the same student's name. , data

is easily damaged, up to data manipulation. When making a report you have to recap it first so that time is less effective and efficient. One of the supporting factors is a lack of technique in data processing and the absence of system restrictions that can anticipate the security of data from payment report documents so that they are more easily manipulated by unauthorized parties.

For this reason, an information system is needed, where one of the solutions that can be used is a payment information system, with a SPP payment system it will be faster and more efficient, so that it can minimize errors in SPP payments and the data is already stored in the database, avoiding data manipulation. Reports can be made at any time if the leadership wishes Computerized data processing and good tuition payment reports enable schools to avoid fraud and irregularities compiled by bookkeeping officers at the end of the period. From the description above the author took the title of the thesis "MULTIUSER BASED SCHOOL SPP PAYMENT INFORMATION SYSTEM AT SMU PGRI 1 PURWODADI GROBOGAN"

#### **2. THEORETICAL BASIS**

### 1. BASIC SYSTEM CONCEPTS

There are two groups of approaches in defining a system, namely those that emphasize procedures and those that emphasize components or elements. The systems approach is closer to procedures, defining a system as a network of interconnected procedures, gathered together to carry out an activity or to complete a certain target.

The systems approach which is a network of procedures emphasizes the sequence of operations in the system. Procedures are defined by Richard F. Neuschel as a sequence of clerical (writing-writing) operations, usually involving several people in one or more departments, which are implemented to ensure uniform handling of business transactions that occur.

An approach that emphasizes elements or components defines a system as a collection of elements that interact to achieve a certain goal. A systems approach that emphasizes components will make it easier to study a system for the purposes of analyzing and designing a system.

A system has a specific purpose. Some say, the purpose of a system is to achieve a goal (goal) and some say it is to achieve a target (objectives). Goals are usually associated with a broader scope and targets within a narrower scope. If it is a main system, for example a business system, then the term goal is more appropriate to apply. For accounting systems or other

systems, which are parts or subsystems of business systems, the term objectives is more appropriate. So, it depends on the scope from which you view the system.

# **3. METHODOLOGY**

Research Methods are the methods used by researchers to collect research data. [2] To carry out these research activities, the author searches for data and collects it in order to produce good results, the following research methods must be carried out:

1. Research Object

In preparing this thesis, the author took the research object at SMA PGRI. Purwodadi, whose address is Jln. R. Sueprapto No. 34 Purwodadi Grobogan, especially regarding school tuition payment transactions and the process of making payment reports which are made every month.

- 2. Types of research data
  - a) Primary data

Namely data obtained directly from SMU PGRI 1 PURWODADI GROBOGAN, especially the Administration section.

b) Secondary Data

Namely data obtained from books as a theoretical basis, the internet, etc. which supports research and is used as a complement to primary data.

c) Method of collecting data

The method used is:

1) Observation

Obtaining data directly from the field is by directly observing the research objects at SMU PGRI 1 PURWODADI GROBOGAN, especially the Administration section.

2) Interview

To complete the data from observations, the author also conducted interviews with bookkeeping staff, namely Mrs. Enden Rita, A.md and Mr. Oong Sutia as the Principal of the School so that this is the necessary data.

3) Literature review

By conducting literature studies, scientific readings that are relevant to the problem and also to obtain secondary data and support data obtained directly from research objects at SMU PGRI 1 PURWODADI GROBOGAN, especially the Administration section.

## 4. RESULTS AND DISCUSSION

1. Login Form Display



Function: To secure data processing

Ways of working :

- a. Login button to enter the Main Menu.
- b. If the User Name or Password is incorrect, an error message will appear.
- c. Exit to exit the program
- d. Log Off to exit temporarily, just log out from Password
- 2. Main Menu Form

Function: Makes it easier to display Master Forms, Transactions and Library Reports.

This form consists of Master Data, Transaction, Report and EXIT Forms.



Ways of working:

- a. Highlight the Master Menu to select Member Form, Book Form, Category Form
- b. Highlight the Transaction Menu to select the Loan Transaction Form and Return Transaction Form.
- c. Highlight the Report Menu to display reports
- d. To exit the Main Menu select Menu Options Exit
- 3. Member Master Form

Function: Processing Member Data

nput Anggota   Di Data Anggota	iftar Anggota Tanggal Pendaftaran	07 Oktober 2010	- Pencarian data Anggota		
No. Anggota	A1011		Pilih salah satu kolom pencarian		
No. KTP/ Lainnys	9393939		Kode Anggota	•	
Nama Anggota		nfo			
Alamat Kota No. Telepon		Maaf Data KTP sudah perr	ah didataslahkan di cek ulang, Ulangi??	Sar) Iset	Keluar
	L			<b>J</b> ,	
		1	1	1	

Ways of working :

- a. Select Master Data Menu Members
- b. Select Member Input New Button to input New Member
- c. Print Members button to print Members
- d. Save button to save new member data
- e. Exit Button to Exit.
- 4. Book Master Form

Function: Processing Book Data

Pata Buku	-1			P Pencari an data buku	1
Kategori	Ilmu–ilmu Murni			Semua Tahun	
Kode Inventaris	12345			C Tahun 2005 ▼ s/d 2010 ▼	
Judul Buku	filosofi		-	Pilih salah satu kolom pencarian	
Pengarang	mrwe	1		Pengarang ·	
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Jumlah Buku	2	Sub	Al		
Hanga Buku	15000 Jumlah B	Suku yang dipinjam	1		

Ways of working :

- a. Select Menu Master Data book
- b. Select Input Book New Button to input a new Book
- c. Save button to save new book data
- d. Exit Button to Exit

5. Category Master Form

Fo	irm Kategori	Buku	
	FORM K	KATEGORI BUKU	
Dat	ta Kategori		
Ко	de Katego	ori 000	
Na	ma Kateg	IOTI Karva Ilmum	
		1 day for a stream	
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•	Eeru Kode 000 100 200	Simon Edit Bisuo Batal (S) Kategori Karya Umum Filsafat Agama	Keluar
•	Kode 000 100 200 300	Simon <u>Cós</u> treco <u>Bata</u> <u>C</u> Kategori Karya Umum Filsafat Agama Ilmu-Imu Sosial	Keluar
•	Kode           000           100           200           300           400	<u>Smeen 2.64 Bleos Batal ©</u> Kategori Karya Umum Filsafat Agama Ilimu-imu Sosial Bahasa	Keluar
•	Earu Kode 000 100 200 300 400 500	<u>Smoon</u> <u>265 treux Batal </u> Kategori Karya Umum Filsafat Agama Imu-Imu Sosial Bahasa Imu-Imu Murni	Keluar

Function: Processing book category data

Ways of working :

- a. Select Master Data Menu category
- b. New button to enter a new book category
- c. Save button to save new book category data
- d. Exit Button to Exit.
- 6. Loan Transaction Form

his hists	D1 (10 (000)	Tennel Dision		
No. Nota	BN/10/0000	12 Tanggal Pinjan	n	26-Agust-201
No. Anogota A101	- Rudi			
Alamat II. Merak S	Semarang			
Status Tidak ada	pinjaman			
Daftar Euku				
Kode Buku 201	Para Penc	ari Tuhan	0	
	1		~	
Pengarang Maulana A	vrbani	-	⊊atat I	
Total Jumlah Buku 4	jumlah buku Keluar/ dipinjam 0			
	Dartar Buku yang densar	1		
KodeBk	Judul	Pengarang	6	
Kode6k 201	Judul Para Pencari Tuhan	Pengarang Maulana Arbani	6	
Kodelšk 201	Sudul Para Pencari Tuhan	Pengarang Maulana Arbani		
Kode6k 201	Xudul Para Pencari Tuhan	Pengarang Maulana Arbani		
Kode6k 201	Judul Para Pencari Tuhan	Pengarang Maulana Arbani		
Kodelik 201	Judu Para Pencari Tuhan	Pengarang Maulana Arbani		
Kodelik 201 * umlah Buku dipinjam	Judu Para Pencari Tuhan	Pengarang Maulana Arbani		
Ecodelik 2201 * umlah Buku dipinjam Fanggal Kembali	Audu Para Pencari Tuhan 1 Kamis, 02-Sep-2010	Pengarang Maulana Arbani		

Function: to process book lending transactions

Ways of working :

- a. Select the transaction menu borrowing
- b. New Transaction button to input a new transaction
- c. Record button to record loan transactions
- d. Exit button to exit.
- 7. Return Transaction Form

Function: to process book return transactions

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No. Teler	ji. Merak pon 929292					
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Tanggal S	Sekarang	26-08-2010			-	
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nari teris						

Ways of working :

- a. Select the transaction return menu
- b. Select note button to select a loan note
- c. Process returns button to process returns
- d. Exit button to exit.
- 8. Member Report Design

Function: Displays member reports

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Description: The Report Form display above functions to display Library Member data reports.

9. Book Report Design

Function: Displays Book Reports

¥	AFTAR KOLEKST BUKU	1			
1	"PERPUS	TAKAAN SI	MA PGRI P	urwod	ladi'
2			Jl. R.Suprapt	o No.2 Purwoda	di Grobogai
-					
ŝ					
-	BOOK			Page %	p of %P.
	Page Header (Section2)				
0	Kode & Judul Buku	PENGARANG	PENERBIT	TAHUN	JML
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	Detail (Section1)				
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Description: The report form display above functions to display book data reports that have been recorded by library staff.

10. Book Category Report Design

Function: Displays Book Category Report

	110111011171	1101110111	101 [ 111 ] 112 [ 112	1111411111	
<ul> <li>Report Header (Sections)</li> </ul>					
Page Header (section2)					
E DAFTAR	₹ KATALO	G BUKU			
1	"PERP	USTAK	AAN SMA	PGRI	Purwodadi"
2				Jl. R.Su	prapto No.2 Purwodadi Grobogan
Detail (Section 1)					
e Decar (Section)					
KodeBk					
Pengarang					
Jumlah	JudulBk				
-	ThTe Pen	erbit			
3	Halaman	Tebal			
3	ISBN				
NamaKt					
<ul> <li>Page Footer (Section3)</li> </ul>					
6					
1 %D   %T				Ha	laman ke : %p dari %P .
<ul> <li>Report Footer (Section5)</li> </ul>					

Description: The Report Form display above functions to display Library Book Category data reports.

11. Library Book Data Report that is being borrowed

Function: Processing loan delay data

Periode tanggal p	injam .	
: 02/12/2008 •	O Semua data ninjaman	Lihat Daftar Anggota yang belum mengembalikan (belum terlambat) pada periode tersebu
: 02/12/2008 •	Tampilkan	Lihat Deftar Anggota yang belum mengembalikan (terlembat) pada periode tersebut
	- Detail data Pinjaman	
ita	No. Nota	Tanggal Pinjam
	Nama Anggota Alamat Kota No. Telepon	
	Kodobi Inshibi	DAFTAR BUKU PINJAMAN
	*	Per gala ig

Description: The form above is used to find out data on library books that are being borrowed and can find out data on members who have not returned books.

12. Book Catalog Form

Function: Processing book catalogues

* Semia Tahun - Kade - Judia - Kadag Peneti * Semia taka kada pencaran Mauakan kriteria data pencaran (Fert Reset Cetak semua dafar kadag butu >>	olt
Tahun (mont) yid (mont)      Manakaan katu kalon percanan      Masakkan katu kalon percanan      Masakkan katu kalon percanan      Teat      Baset      Zeak semua dafar kadog buku >>	
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Description: The form above is used to print library book catalogues.

13. Library Terms Form

Function: Contains library provisions, explains library provisions

<b>a Keanggotaan</b> Naktu Update lama :   Waktu Update baru :		Text1 Text1
Vaktu Update lama :   Waktu Update baru :		Text1 Text1
Waktu Update baru : 🏼 🗍		Text1
ng , Baru		Per Buku
ing , Baru		hari.
ung , Baru		buku.
ng , Baru		per Buku.
		««Sekarang
	0	«« Baru
Simpan	Edit	Keluar
	ng , Baru ng , Baru ng , Baru ng , Baru Sjimpan	ng , Baru ng , Baru ng , Baru ng , Baru Simpan <u>Edit</u>

Note: The form above is used to provide computerized regulations that will affect book

borrowing or return transactions

14. Library Identity Form

Function: Displays library identity

FORM INDENTITAS PERPUSTAKA	AAN
Iama Perpustakaan	Simpan Batal

Description: The form above is used to provide identity to the library at school.

15. Book Search Form (Searcing)

Function: Makes it easier for library members/users to search

Pilih Field yang akan dicari : Judul Buku			Masukkan kata yang Anda maksud :				Reset	Kelua
			tombo ati					
Pengarang Penerbit		Kode Buku	12909087	Lokasi Buk	u AL2	Tahun Terbit 2	009	
		Judul	Tombo Ati	Ruang	R2	Tebal 1	10	
K	Kode Inventaris		Pengarang	Syarif Hidayat	Rak	C	Jml Buku 7	1
ISBN		Penerbit	Rineka Cipta	Sub	C1	Jml Dipinjam 0		
	Kode Buku Judul B 12909087 Tombo		šuku			Pengarang		Penerbi
•			Ati			Syarif Hidayat		Rineka C

Description: The form above is used to search for library books without looking for books directly at the location.

# **5. CONCLUSION**

From the description of the discussion above regarding the library information system at SMU PGRI 1 PURWODADI GROBOGAN, it can be concluded that:

- 3. The data processing process still found errors when entering book data, return data, because it was still recorded in the book. And recording with books results in lost or damaged data and data not being stored in the database.
- 4. With a computerized and multi-user based library information system, the process of collecting data and recording library book borrowings can be done quickly and reduces the possibility of errors and makes it easier to search for data because the data is stored in one database.
- 5. With a multi-user based library information system, the time required to process data will be more effective and reports for the Principal will also be easier and faster.

## 6. BIBLIOGRAPHY

- 1. Agus J. Alam, 2000, Database Management with Microsoft Visual Basic version 6.0, Elek Media Komputindo, Jakarta.
- 2. Arikunto, Suharsimi, Prof. Dr, 2002, Research Procedures (a practical approach), Revised Edition V, Rineka Cipta, Jakarta.
- 3. Jogiyanto, HM, 2005, Analysis & Design: Information systems structured approach to theory and practice of business applications, Andi Offset, Yogyakarta.

- 4. Jogiyanto, HM, 2005, Introduction to Computers, Andi Offset, Yogyakarta.
- 5. Kristianto, Harianto, Ir, 2004 Database Concepts and Design, Andi Offset, Yogyakarta.
- 6. Mulyadi, 2004, Accounting Systems, Salemba Empat, Jakarta.
- 7. Madcoms, 2005, Advanced in 7 days: Basic 6.0 visual programming, Andi Offset, Yogyakarta.
- 8. Novian, Agung, 2004, Microsoft Visual Basic Guide, Andi Offset, Yogyakarta.
- 9. Sutanta, Edhy, 2004; "Database System"; Yogyakarta: Science Graha
- 10. Oetomo, Dharma, Sutedjo, Budi, S.Kom, MM, 2002, Information Systems Design and Development, Andi Offset, Yogyakarta.
- 11. Sutabri, Tata, S.Kom, MM, 2003, Information Systems Analysis, Andi Offset Offset, Yogyakarta.
- 12. Wahana Computer, 2005, "Using Microsoft Access". Andi Offset
- 13. Raymond McLeod, Jr Management Information Systems, 10th Edition, Jakarta : Salemba Empat, 2008