

Web-Based E-Budgeting Design (Case Study at Unwaha Jombang)

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ABSTRACT

Every year, the faculties and units at KH. A. Wahab Hasbullah University submit budget proposals to the Planning Department. Some common issues include low budget absorption and suboptimal reporting. Reporting also faces difficulties as everything is done manually. In an effort to address the aforementioned problems, a system needs to be developed to facilitate communication and coordination among various parties in budget creation, ensuring the formulation of a realistic and achievable budget. Thus, the E-Budgeting system is established to tackle these budget submission challenges. The research methodology involves several stages, including data collection methods (literature review, field study) and system development methods (design phase, coding phase, and testing phase). The goal of this research is to design a budget submission and preparation system at KH. A. Wahab Hasbullah University in Tambakberas Jombang that can expedite the budget disbursement process. The final outcome of this research is the creation of a web-based E-BUDGETING application providing budget processing information accessible to the academic community at KH. A. Wahab Hasbullah University. **Keywords**: E-BUDGETING, Budget, Codeigniter, MySQL

INTRODUCTION

Budgeting is a crucial aspect that must be carefully considered in any institution or organization. With a budget in place, an institution or organization can smoothly carry out its activities. Typically, every event, whether large or small in scale, requires a budget proposal for funding. During the budget submission process, various challenges may arise, both in obtaining approval for the proposed budget and in the disbursement of the allocated funds. To simplify and expedite the budget submission process, a system has been developed to address these issues.

E-budgeting is a budget management system designed to handle the submission and preparation of budgets in an institution or organization in a faster and more transparent manner. With this system, it is expected that the budget approval and disbursement processes become easier. E-budgeting is a web-based system, providing high flexibility in terms of accessibility. Users can access it using any device at any time, ensuring convenience and efficiency.

METHOD

This research was carried out through several stages, where these stages used the following research methods:

- Data Collection Methods (Literature Study and Field Study through interviews)
- System Development Methods

The system development method used by researchers to build the software "Web-Based E-Budgeting Design (Case Study at Unwaha Jombang)" is the System Development Life Cycle (SDLC) using the Waterfall model.

RESULT AND DISCUSSION

This application has a master menu and data menu, including access to units, activity items, budget items, faculties, study programs and committees which can only be accessed by users who have access to the master menu. The data menu includes committee, type of activity, submission and submission acc.

Result

The following is the e-budgeting application login page

tasi e-Budgeting ID / Username Masukkan ID Akses atau Username Anda Password Masukkan Password Anda	🛗 Senin, 19 Okto	Login Sistem	
Masukkan ID Akses atau Username Anda Password Masukkan Password Anda	casi e-Budgeting	ID / Username	
kttif E		Masukkan ID Akses atau Username Anda Password	
	^{uktif} C	Masukkan Password Anda	r
Batal Login	Ŀ	Batal Login	L

Figure 1. Application Login Page

To access the next page, namely the dashboard page, users need to log in. This process requires a username and password to be able to pass the verification process and enter the next page.

\$	=						
Dashboardd e	-Budget					Refresh Hala	aman Kode Sistem: 001
<u>ß</u>	Pelanggan Aktif Ó	Ŀ	Jumlah Tagihan Belum Terbayar 6	Ţ	Aduan Pending 6	☆	Sistem Terintegrasi 1

Figure 2. Dashboard Page

The dashboard page functions to display general information regarding budgets that have been realized and budgets that are in the status of being processed, pending, approved.

Show 10 Ye	entries		Search:	1	Form Tambah Data
Aksi	ti ID	1 Nama	1. Icon	11 Bentuk	ID Menu*
0	00001	Master	icon-drawer	8	Masukkan Kode Menu
					Nama Menu*
Ø	00002	Data	icon-briefcase	Ð	Masukkan Nama Menu
0	00003	Pencarian	icon-magnifier	٩	lcon*
0	00004	Laporan	icon-printer	0	Pilih Salah Satu 👻
	00005	Pengaturan	icon-settings	۲	Tambahkan Batal

Figure 3. Menu Page

The menu page functions to add the desired menus.

=				
orm Level				Refresh Data Refresh Halaman Kode Form: Ie405
Show 10 V entries			Search:	Form Tambah Data
Aksi	ti	ID	Nama	ID Level*
0		00	Super Admin	Masukkan Kode Menu
0		01	Bendahara	Nama Level* Masukkan Nama Menu
0		02	Fakultas	Tambahkan Batal
0		03	Staff	
0		04	Keuangan	

Figure 4. Level Page

The level page functions to add access rights or levels for users in e-budgeting applications.

-		≡	🗰 Senin,	19 Oktober 2020 J	am 23:41:37					
Hala Pengel	man Form olaan Data Form								Refresh Halaman	Kode Form: fo110
S	how 10 ~	entries				Search:		Form Ta	mbah Data	
	Aksi ↑↓	ID ₁₁	Nama 斗	Menu 1	Sistem $\uparrow\downarrow$	lcon ↑↓	Bentuk $_{\uparrow\downarrow}$	ID Form*		
	0	ak755	Akun	Pengaturan	e- Budget	icon-people	B	Masuki	kan Kode Sistem	
	0	au001	Akses Unit	Master	e- Budget	icon-user	<u>B</u>	Nama For Masuki	m* kan Nama Pendek Sistem	
	0	av001	Acc Pengajuan	Data	e- Budget	icon-check	Ø	Menu*		
	0	dr699	Form Level	Pengaturan	e- Budget	icon-star	☆	Pilih Sala	ah Satu	*
		fk001	Fakultas	Master	e-	lcon-	+4†	Sistem*	ih Satu	*

Figure 5. Form Page

The form page functions to create forms, determine what menus can be accessed, what systems can be accessed and determine menu icons.

Show 10	 entries 			Se	arch:			Form Tambah Data
Aksi _{↑↓}	ID ₁₁	Level ₁	Form _{↑↓}	Akses Tambah ↑↓	Akses Update ↑↓	Akses Hapus î↓	A C	ID Akun*
0	1589001366	Bendahara	Akun	Ya	Ya	Ya	Y	Otomatis By System
0	1595576228	Bendahara	Pengajuan	Tidak	Tidak	Ya	ті	Level* Pilih Salah Satu
0	1595924153	Fakultas	Pengajuan	Ya	Ya	Tidak	Y	Form*
0	1602074193	Keuangan	Acc Pengajuan	Tidak	Ya	Ya	Yi	Pilih Salah Satu Akses Tambah* Akses Update*
0	1595167784	Staff	Pengajuan	Ya	Ya	Ya	Y	Pilih Salah Satu 💙 Pilih Salah Satu
Showing 1 to 5 o	f 5 optrios				Previous	1 Next		Akses Hapus* Akses Cetak*
4	i J entries						•	Pilih Salah Satu 👻 Pilih Salah Satu

Figure 6. Level form page

The form level page functions to determine the level at which a user has the right to access a form or menu along with add access, update access, delete access and print access.

\$	≡ 🖽 Se	nin, 19 Oktober 20	020 Jam 23:59:00			
Show 10 🗸 entri	es			Search:		Form Tambah Data
Aksi ↑↓	ID îl	Nama î↓	Username $\uparrow\downarrow$	Level 1	Status $\uparrow\downarrow$	ID Akun*
	1586930699	Natasha	natasha	Super Admin	Aktif	Otomatis By System
0	1594436529	budi	budi	Bendahara	Aktif	Nama Akun* Masukkan Nama Pemilik Akun
0	1595165354	Hary	dekan	Fakultas	Aktif	Username*
0	1595167575	Ima	hima	Staff	Aktif	Masukkan Username yang Unik
	1595167690	Atok	santa	Staff	Aktif	Level* Pilih Salah Satu *
0	1595646421	Yanto	yanto	Fakultas	Aktif	Status*
	1595646441	Dimas	dimas	Staff	Aktif	Pilih Salah Satu 🗸
						Tambahkan Batal

Figure 7. Account page

The function of the account page is to add users along with their level and status, whether the user is active or inactive.

ilaman Form gelolaan Data Peng	Pengajuan _{Jajuan}								Refresh Halama	n Kode Form: pj0
Show 10 ¥	entries					Search:			Form Tam	bah Data
Aksi †↓	Nama	↑↓ Deskripsi	↑↓	Tanggal Pelaksanaan	†↓ La	$ma_{\uparrow\downarrow}$ Status $_{\uparrow}$	Ketera	ingan _{†↓}	ID Jenis Keg	iatan"
8	SEMHAS	Seminar n ke 5	asional	2020-07-23	1	Proses			Ospek	,
	Seminar Hasil 2020	Seminar H Gel kedua	lasil	2020-07-24	1	Proses			Nama Kegia Masukka	t an* 1 Nama Kegiatan
Showing 1 to 2 of 2	2 entries					P	revious	Next	Deskripsi*	
Showing 1 to 2 of 2	2 entries	em Yang DI ajukar Nama Item*	n		-	P Harsa*	revious	Next	Deskripsi*	
Showing 1 to 2 of 2	2 entries	em Yang DI ajukar Nama Item* Masukkan Nam	n a Item			P Harga* Masukkan Harga	revious	Next	Deskripsi*	Kode Form: pij001
Showing 1 to 2 of 2 alarman Form regelotean Data Perge Show 10 •	2 entries	em Yang DI ajukar Nama Item* Masukkan Nam Show 10 ¥	n a Item entries			P Harga* Masukkan Harga	revious 3	Next	Deskripst*	Kode Form: p1001
Showing 1 to 2 of 2 alarman Form regelotean Data Pergel Show 10 ¥ Aksi ti	2 entries Pengajua sajean entries Nama	em Yang Di ajukan Nama Item* Masukkan Nam Show 10 ¥	n entries 11 ID		14	P Harga* Masukkan Harga Nama Item	revious 2	Net Tambahkan Harga	× Holonor m Tamba	Rode Form: p001
Showing 1 to 2 of 2 alarman Form registration Data Parag Show: 10 ~ Aksi 1; 2	2 entries R	em Yang Di ajukar Nama Item* Masukkan Nam Show 10 + Aksi	n altern entries TL ID 1602	2062632	14	P Harga* Massidan Harga Nama Item penginapan	revious 1 Search:	Next Tambahkan Harga 150000	Deskripst* x https://www.internet.org/action/org	Kode Form: p001 sh Data an [*]
Showing 1 to 2 of 2 alaman Form regelotion Data Perg Show 10 × Aksi 11 2 10 2	2 entries	em Yang Di ajukar Nama Item* Masukkan Nam Show 10 × Aksi 10	n entries ID 1602	2062832	14	P Harga* Masukkan Harga Nama Item penginapan abod	revious T Search:	Nest Tambahkan Harga 150000 9000	Eeskripst* Kristanum Kristanum Til Jenis Kogtat speix ma Kegtata	Node Forne (1001 an Data an*

Figure 8. Submission Form Page

The submission page functions to submit activities and activity items along with detailed cost plans.

elolaan Data Acc Pengajuans				Refresh Data	Refresh Halaman	Kode Form: av
Unit*	Prodi/	Sub Unit	Sampai Tahun			
Pilih Salah Satu	•		Ŧ	Filter Data		
Show 10 v entries					Search:	
Aksi _{↑↓} Jenis Kegiat	an î↓	Nama Kegiatan 🏻 岸	Tanggal Pelaksanaan $\uparrow\downarrow$	Nominal Pengajuan 🌐	Nominal Acc	Status 1
seminar per	tanian agrobisnis	Seminar	2020-07-26	350000	0	0
					Previo	Next

Figure 9. Acc submission page

The application acc page functions to provide approval for applications for planned activities.

Discussion

To test the system, researchers used the black box method. Black box testing is program testing based on the function of the program. Black box method testing is carried out by providing a number of inputs which are then processed according to the functionality requirements to see whether the application program produces the desired output and is in accordance with the function of the program.

	Table 1 Staff Login Testing
	Test data is correct
Input data	Username : hima
Expected data	Password: hima
Observation	The data entered is correct, then pressing the login button will display the
	main layout
Conclusion	Displays the main layout
	Test data is incorrect
Input data	Username : abc12345
Expected data	Password: abc12345
Observation	The error message "Your username/password is incorrect!"
Conclusion	The error message "Your username/password is incorrect!"

Table 2 Testing Add Testing

	Test data is correct
Input data	Submission of activities: results of seminar activities
Expected data	The data entered is correct, then pressing the save button displays the prompt "Add
	Submission Successful" and the list of submission data increases
Observation	Swal "Add Successful Submission" and the list of submission data increases
Conclusion	Accepted
	Test data is incorrect
Input data	Activity submission: (blank)
Expected data	The error message "This value is required" appears.
Observation	The error message "This value is required" appears.
Conclusion	Accepted

In the add submission test, the level that has the right to add submissions, for example, submits a Result Seminar activity and then presses the add button and the message "Add Submission Successful" appears.

	Table 3 Submission edit testing
	Test data is correct
Input data	Submission of activities: results of seminar activities
Expected data	The data entered is correct, then pressing the save button displays the prompt
	"Update Submission Successful" and the list of submission data changes
Observation	swal "Update Submission Successful" and the submission data list changes
Conclusion	Accepted
	Test data is incorrect
Input data	Activity submission: (blank)
Expected data	The error message "This value is required" appears.
Observation	The error message "This value is required" appears.
Conclusion	Accepted

In the submission editing test, the user presses the edit button then performs an editing action on the selected item then presses the "edit" button and the message "Successful Submission Update" appears.

Table 4 Delete submission test		
Test data is correct		
Input data	Select it and press the delete button on the selected one	
Expected data	The data entered is correct, then pressing the save button displays the prompt	
	"You have successfully deleted the application" and the list of application data	
	decreases.	
Observation	swal "You have successfully deleted the cause of the application" and the list	
	of data for the cause of the application has been reduced.	
Conclusion	Accepted	
Test data is incorrect		
Data masukanInput data	Select it and press the delete button on the selected one	
Expected data		
Observation		
Conclusion		
Data yang diharapakan	The selected data is correct, then press No. swal "You canceled the deletion"	
	The reason data was canceled was deleted	
Pengamatan	swal "You canceled the deletion" The reason data was canceled was deleted	
Kesimpulan	Accepted	

 Table 4 Delete submission test

In the test to delete a submission, the user presses the delete button and a warning appears "are you sure" and if the user is sure to carry out the delete action then the message "You have successfully deleted the submission" appears and the data list in the submission table will decrease.

Table 5 Submission Acc		
Test data is correct		
Input data	Unit: Faculty of Information Technology	
Expected data	Study Program/Sub Unit: Informatics Study Program	
Observation	Year: 2020	
Conclusion	The data entered is correct, then pressing the filter button then the data list	
	displays the details of the filtering	
Test data is incorrect		
Input data	Unit: Faculty of Information Technology	
Expected data	Study Program/Sub Unit: Informatics Study Program	

Observation	Year: (blank)
Conclusion	A list of filtered submission data does not appear accepted

In the Acc Submission test, the user filters by unit or faculty and year then presses the filtering button to display the desired data. If the data entered is correct, then presses the filter button then the data list displays the details of the filtering.

CONCLUSIONS

Based on the design and discussion outlined previously, the following conclusions can be drawn:

- By using the e-budgeting application, users can find it easy to submit a budget.
- From the data above, all users can see the budget allocation directly.
- By using the e-budgeting application, all users experience budget transparency.

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