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

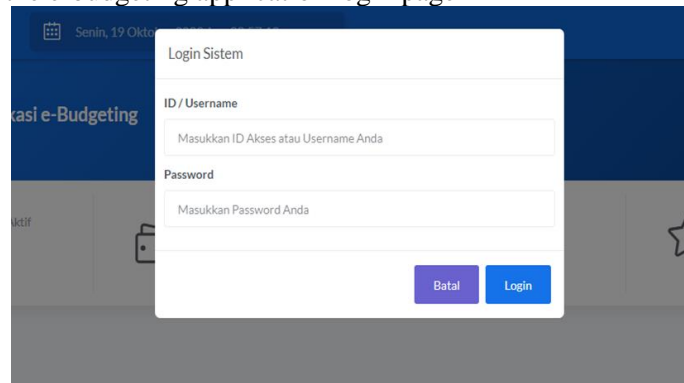The following is the e-budgeting application login page

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.
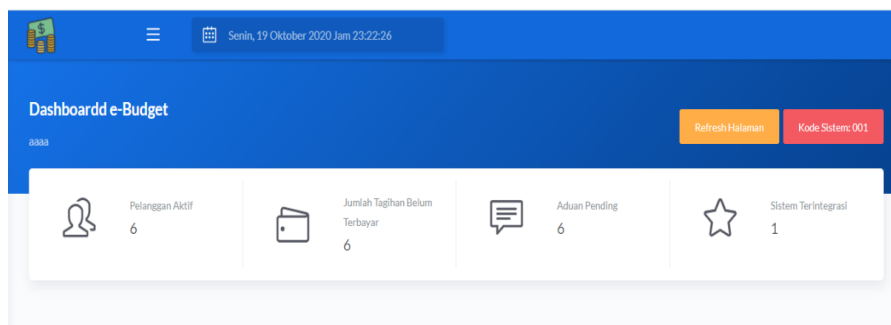

Figure 2. Dashboard Page

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.
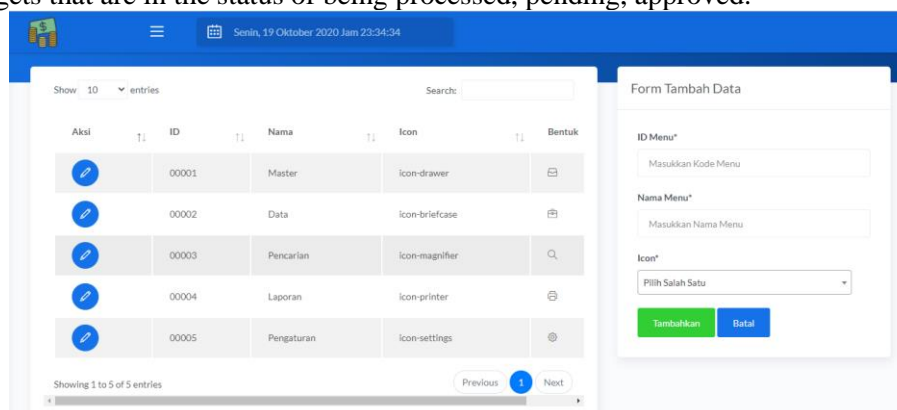

Figure 3. Menu Page

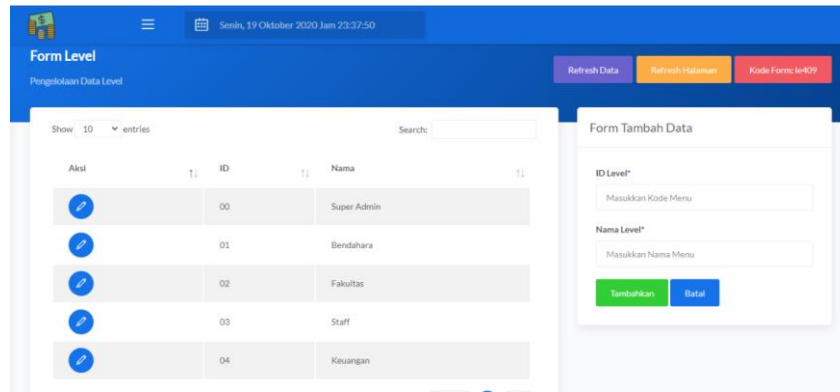The menu page functions to add the desired menus.

Figure 4. Level Page

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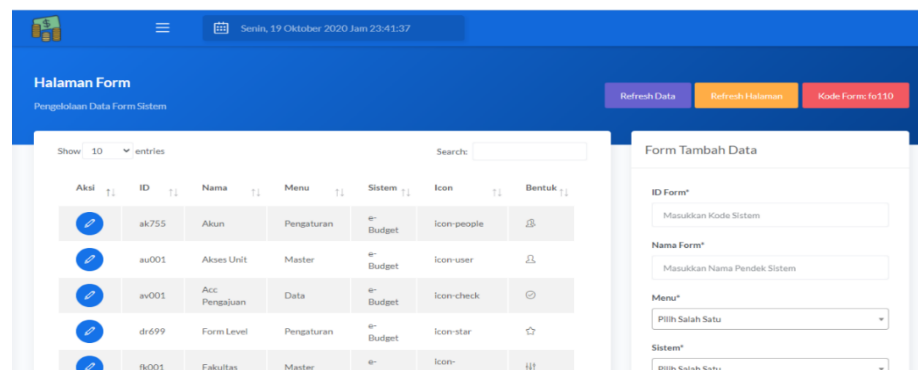

Figure 5. Form Page

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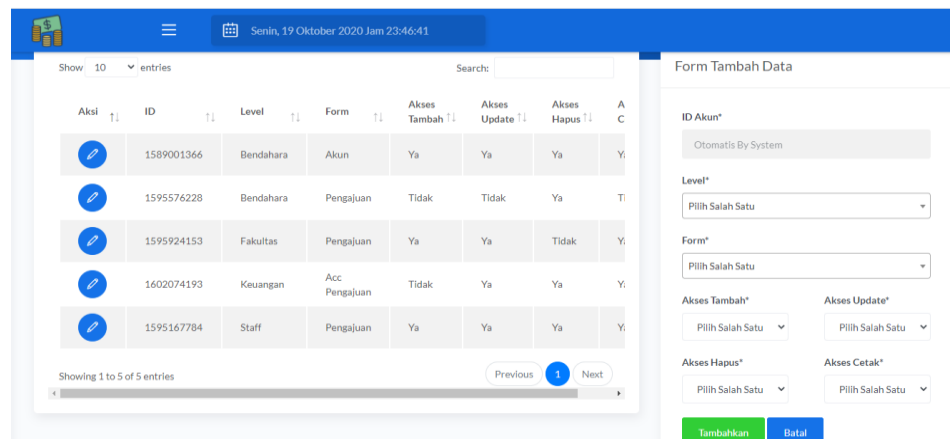

Figure 6. Level form page

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.
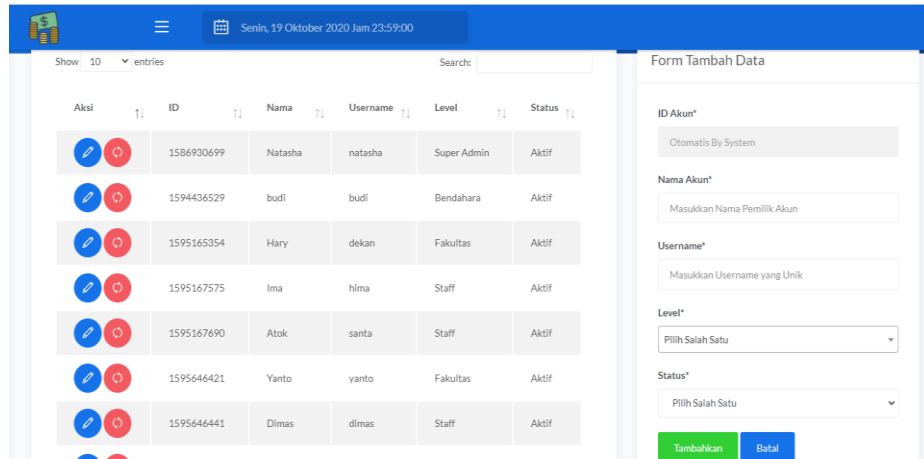
Figure 7. Account page

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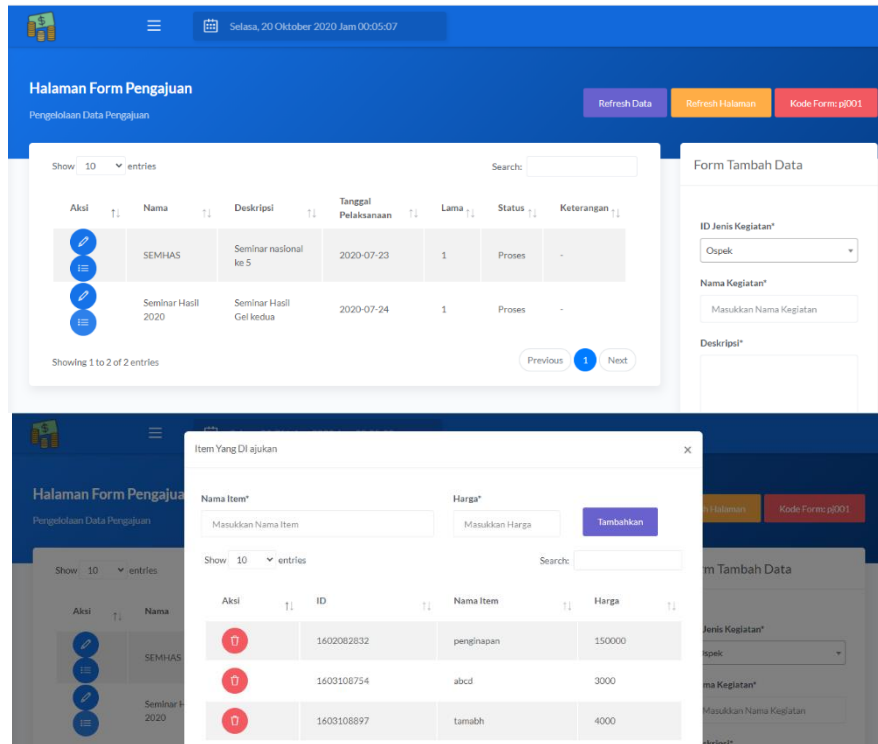

Figure 8. Submission Form Page

The submission page functions to submit activities and activity items along with detailed cost plans.
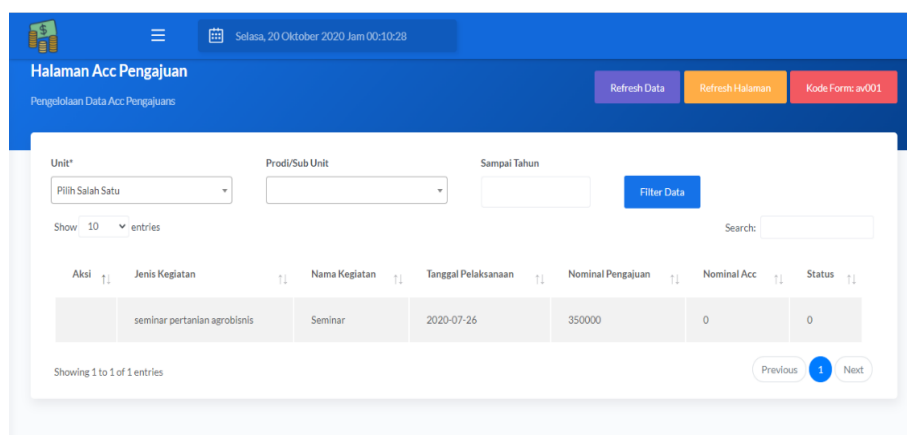
Figure 9. Acc submission page

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 Expected data Observation Conclusion	Select it and press the delete button on the selected one
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

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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