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Exchange Site for Reading and Publication of Comics Web-Based

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Abstract. This study aims to create a web-based comic reading and publishing exchange to make obtaining, reading, and publishing a comic easier. As for the background of this research, in today's modern era, when getting a comic, some people still use conventional methods, so it requires more costs, limited stock, longer time, limited storage space, and more complex maintenance and production costs—extensive distribution. Creating web-based comic reading and publication exchanges is an alternative expected to make reading comics easier and faster. Comic buyers and sellers can also easily make comic transactions because they are systemized and stored safely. Testing the reading site exchange system and web-based comic publications shows that the system has achieved the expected goals. The system can identify user roles; allows the Admin to review or confirm comics and chapters as well as manage genre and user data; provides the seller with the ability to manage data on comics, chapters, and payments; gives customers access to view a list of comics, transaction history, make purchases, and read comics; and the payment system can confirm transactions made by customers.

Keywords: Read, Publication, Comics, Web

INTRODUCTION

In today's digital era, technological developments are increasingly rapid, and the internet has become one of the most widely used media. This makes it easier for people to access information and entertainment *online*. One increasingly popular form of entertainment is comics or comic books. Many people love to read comics, but finding a place that provides complete and up-to-date reading is challenging. According to (Subroto et al., 2020), comics are collections of images arranged in a sequence that is connected in a frame and reveals characters packaged in the story to increase the reader's imagination.

The problem arises when some people still use conventional reading and getting a comic. This method can require more costs, limited stock, longer time, limited storage space, and more difficult maintenance. Then, the obstacle faced by comic writers is the expensive cost of publishing their works physically. Conventional comic publication requires large production and distribution costs, thus making publication costs expensive.

According to (Nugrohoadhi & Uajy, 2017), the publication is a means. Convey information that is expected to contribute positively to the development of scientific insight for someone. Therefore, the author will create a Web-Based Comic Reading and Publication Site Exchange application to save costs, time efficiency, and stock that is always available, without the need to think about limited storage space and maintenance and provide a place for comic creators to publish their works *online* at a lower cost.

In addition, the site serves as an interactive exchange that connects comic creators and readers in an *online* ecosystem. This exchange has a more modern and efficient comic buying and selling transaction activity. The creators of comics can put their works into this platform and set prices accordingly. On the other hand, readers can easily browse the catalog of available comics, select comics that interest them, and make purchases through digital payment systems.

According to (Suyono, 2018), Bursa is a highly organized market that brings buyers and sellers together without them knowing who their counterparties are. The exchange (primarily) houses trading in securities, commodities, currencies, futures contracts, and buy/sell rights contracts. An exchange brings buyers and sellers together without knowing who their counterparty is.

This platform opens up new opportunities in the comic publication industry in Indonesia. This is a step towards digital transformation in the form of publication, bringing greater convenience, efficiency, and accessibility to readers and comic creators. This system is expected to make it easier for comic readers to get, read, and publish a comic and raise the enthusiasm of comic creators to create new works and publish them.

DISCUSSION

Application Use

Comic Reading Page



Figure 1. Comic Reading Page

In the picture above displays Comic chapter reading page, this page will appear and can be accessed by *Customers* when this comic is free or this comic is paid and has been purchased.

Manage Comics Data page

The manage *comics page is a page where the Vendor manages comics in the system, on this page all comics sold by* the Vendor are displayed and there is an action button on the page, namely add, change and delete comic data. The manage comics page can be seen in figure 2 below:



Figure 2. Manage Comics Data page

Manage Chapter Data

The chapter management page is a page where the Vendor manages chapters in the system, on this page all chapters entered by the Vendor are displayed and there are action buttons on the page, namely add, change and delete. The chapter management page can be seen in Figure 3 below:



Figure 3. Manage Chapters page

Checkout Page

The *checkout* page is the *Customer* page to make transactions by writing personal details and choosing a payment method. The *checkout* page can be seen in figure 29 below:



Figure 4 Checkout Page

Comic Data Confirmation Page

The comic data confirmation page is a page for the Admin to confirm all comic data that has been inputted by the *Vendor* to be displayed on the *Customer* page. The comic data confirmation page can be seen in figure 5 below:



Figure 5 Comic data confirmation page

Chapter Data Confirmation Page

The chapter data confirmation page is a page for the Admin to confirm all chapter data that has been inputted by the *Vendor* to be displayed on the *Customer* page. The chapter data confirmation page can be seen in figure 6 below:



Figure 6 Chapter data confirmation page

Payment Details Page

This payment detail page is used by the Customer to be *able to see the details of transactions that have been made and make transactions by entering* the virtual account number into *the* virtual account *payment gateway which will also be confirmed by* the payment gateway. The order details page can be seen in figure 7 below:



Figure 7 Payment details page

System Testing

Free Comic Reading Testing

Table 1. Test Results Test Case ID 03

Project Name:

Comics Reading and Publication Site Exchange

Test Case ID: 03 Test Designed by: Muhamad Iksan Test Priority (Low/Medium/High): High Test Designed Date: 13-08-2023 Module Name: Reading Comics Test Executed by: Muhamad Iksan Test

Title: Read Comics FreeTest Executable date: 13-08-2023

Description: Testing access to the comic reading page Actor: Customer

Initial Condition: Customer has logged in

No	Test Steps	Test Data	The results Expected	Results that occur	Status
2	Go to a free comic detail page Select a chapter Click the chapter button	Choose: Chapter 1	Customer successfully accesses comic reading page	to the comic reading	Succeed



Figure 8. Test Results Test Case ID 03

In test case id test 03, a free comic reading test was carried out by the *Customer* by opening the free comic detail page, select one chapter and press the chapter button. Then the test result of test case id 03 is in accordance with what is expected. The test results can be seen in figure 33.

Reading Paid Comics Already Made a Purchase

Table 2. Test Results Test Case ID 05

Project Name: Comics Reading and Publication Site Exchange Test Case ID: 05 Test Designed by: Muhamad Iksan Test Priority (Low/Medium/High): High Test Designed date: 13-08-2023 Module Name: Reading comics Test Executed by: Muhamad Iksan Test Title: Reading paid comics already Test Executed date: 13-08-2023 Make a purchase Description: Testing access to the comic reading page Actor : Customer Initial Condition: Customer has logged in and has made a purchase No Test Steps Test Data Expected results Results that occur Status

	Go to the details page of a purchased comic		Customer successfully	Customers are redirected to the comic reading	
2	Select a chapter	Choose: Chapter 1	accesses comic reading page	page, can be seen in figure 34	Succeed
	Click the chapter button			-	



Figure 9. Test Results Test Case ID 05

In test case id test 05, a paid comic reading test was carried out and made a purchase by opening the details page of the comic that has been purchased, selecting one of the chapters and pressing the chapter button. Then the test result id of test case 05 is in accordance with what is expected. The test results can be seen in figure 9.

Comics Publication

Table 3 Test Results Test Case ID 30

Pro	oject Name:						
Co	mics Reading and Publ	ication Site Excha	ange				
Tes	st Case ID: 30Test Des	signed by: Muha	mad Iksan Test Priori	ity (Low/Medium/High)	: High Test		
De	signed date: 13-08-202	23 Module Name	: Add comic data Test I	Executed by: Muhamad	Iksan Test		
Tit	le: Add data correctly	Test Executed da	te: 13-08-2023				
De	scription: Testing man	age comics data A	Actor: Vendor				
Ini	tial Condition: The ver	ndor has logged i	n				
No	Test Steps	Test Data	The results Expected	Results that occur	Status		
1	Vendor open						
	Comics page						
2	2 Click the add data						
	button on the page						
	comics.						

3	Fill in the title field	Kimi no nawa			
4	Fill in the author field	Makoto sinkai		The message appears	
	Fill in <i>the synopsis</i> field	About kimi no nawa	Data successfully stored in <i>the</i>	"Successfully added Kimi no nawa comic,	Succeed
_		Mysteries	database	can be seen in picture	Buccea
7	Populate status fields	The end		35	
8	Fill in the price field	0 or free			
9	Fill <i>in the Type</i> field	Manga			
	Fill in <i>the cover</i> field comics	Kiminonawa.jpg			
11	Click the save button				

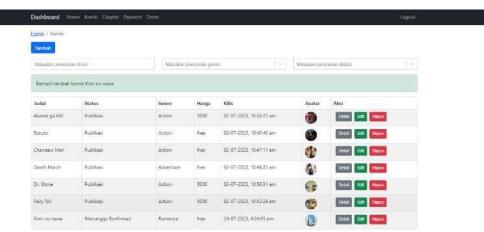


Figure 10 Test Results Test Case ID 30

In testing the id of test case 30, testing added comic data by entering data on title, author, synopsis, genre, status, price, type and comic cover. Then the test result of test case id 30 is in accordance with what is expected. The test results can be seen in figure 35.

Comics Transactions

Table 4 Test Results Test Case ID 47

Pro	Project Name:							
Cor	Comics Reading and Publication Site Exchange							
Tes	Test Case ID: 47 Test Designed by: Muhamad Iksan Test Priority (Low/Medium/High): High Test							
Des	signed date: 13-08-202	23 Module Name: Comi	c transaction Test	Executed by: Muhama	d Iksan Test			
		ioncomics Test Execute		}				
Des	scription: Testing man	age transaction data Act	t or: Customer					
Init	tial Condition: Custon	ner has logged in						
No	Test Steps	Test Data	The results Expected	Results that occur	Status			
1	Customer opens							
	Transaction page							
2	Fill in the Name field	Muhamad						
	front			The message				
3	Fill in the last name	Iksan	Data successfully	"Successful checkout"				
	field]	appears and the				

4	Fill in email fields	iksangame80@gmail.c	stored in the	transaction details	Succeed
		om	database	page is redirected, can	
5	Fill in <i>role fields</i>	Frontend		be seen in figure 36	
6	Choose a payment	BRI			
	method				
7	Click the pay button				
	now				



Figure 11. Test Results Test Case ID 47

In testing the id of test case 47, comic transaction testing was carried out by entering data on first name, last name, *email*, *role* and payment method. Then the test result of test case id 47 is in line with what is expected. The test results can be seen in figure 11.

Confirmation of Publication of Comic Data

Table 5 Test Results Test Case ID 35

Project Name: Comics Reading and Publication Site Exchange Test Case ID: 35 Test Designed by: Muhamad Iksan Test Priority (Low/Medium/High): Test Medium Designed Date: 13-08-2023 Module Name: Confirm comic data Test Executed by: Muhamad Iksan Test Title: Confirm for publicationof comics Test Executed date: 13-08-2023 Description: Testing manage comics data Actor: Admin Initial Condition: Admin has signed in					
No	Test Steps	Test Data	The results Expected	Results that occur	Status
1	Admin opens the comic page		C	The alert appears "The status of kimi no nawa	
	Select the data you want to change status for	kimi no nawa	Successfully changed the status of the comic data	comic data has been successfully changed", can be seen in figure	Succeed



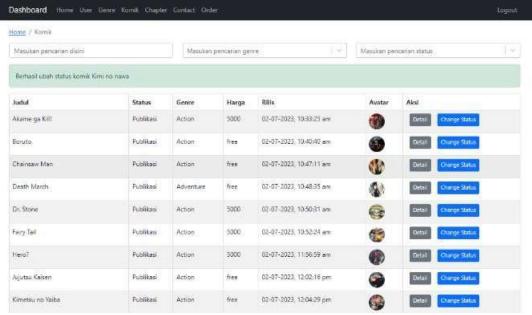


Figure 12. Test Case ID Test Results 35

In testing test case id 35, comic data confirmation testing was carried out. By selecting one of the records and then clicking change status, then the status of the data has been successfully changed. Then the test result of test case id 35 is in line with what is expected. The test results can be seen in figure 12.

Confirmation of Chapter Data Publication

Table 6 Test Results Test Case ID 41

Project Name: Comics Reading and Publication Site Exchange Test Case ID: 41 Test Designed by: Muhamad Iksan Test Priority (Low/Medium/High): High Test Designed date: 13-08-2023 Module Name: Confirm chapter data Test Executed by: Muhamad Iksan Test Title: Confirm for publicationchapter Test Executed date: 13-08-2023 Description: Testing manage chapter data Actor: Admin Initial Condition: Admin has signed in						
	Test Steps	Test Data	The results Expected	Results that occur	Status	
2	The admin opens the chapter page Select the data you want to change status for	Chapter 5	Successfully changed chapter data status	The message "Chapter 5 data status successfully changed" appears, can be seen in	Succeed	
3	Select the change status button	Select: Publication		figure 38		

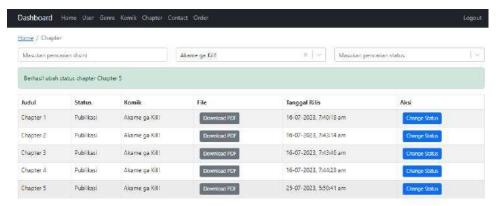


Figure 13 Test Results Test Case ID 41

In testing test case id 41, chapter data confirmation testing was carried out. By selecting one of the records and then clicking change status, then the status of the data successfully changed. Then the test result of test case id 41 is in line with what is expected. The test results can be seen in figure 13.

Summary of Test Results

Tests conducted on web-based comic reading and publication sites can result in conclusions that this system is in accordance with the expected results, namely:

- 1) The system can identify user roles and redirect to pages according to their roles.
- 2) Admin can *review* or confirm comics and chapters before publication as well as manage *user and* genre data.
- 3) Vendors can manage comic data, chapter data and payment data.
- 4) *Customers* can see the list of available comics, transaction history, purchase comics and read comics.
- 5) *Payment gateway* can confirm transactions made by the *Customer*. Functionally the system can produce the *expected* output.

CONCLUSION

Based on the description in the previous chapters, the conclusions that the author can draw, namely:

 The exchange of web-based comic reading and publication sites that have been created can overcome several problems: requires more costs, limited stock, longer time, limited storage space, more complex maintenance, and expensive production and distribution costs.

- 2. Know some exciting comics and information about their authors.
- 3. Make it easier for comic readers to get, read, and publish a comic and raise the enthusiasm of comic creators to create new works and publish them.
- 4. The availability of applications supporting comic reading activities and comic publications can be accessed *online*.
- 5. Provides transaction features so that comic writers can make this *website* a money-making medium.

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