

Design Get up Application *E-Commerce* Based *Web* Using the Agile Kanban Method (Case Study at Bandung Digital Marketing Friends)

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Abstract

Study This gives a clear view of How a company can face problem displacement sales from marketplaces to e-commerce websites, companies realize that depending on the marketplace it has a number of limitations and challenges. From the problems mentioned above, then _ proposed For building purposeful web application For design and develop web-based e-commerce application. In this process, System web applications use modeling Draw Io system, with PHP programming language, and phpMyAdmin database, PHP Framework Laravel 9. Test results on the system This shows that from the results Index percentage earned on each _ statement pointed out average results the percentage is 74.66% With results, then it is stated in testing to achievement utility application stated worthy accepted with Satisfactory status

Keywords : *Agile Kanban method, Admin, User, Application E-Commerce,*

1. INTRODUCTION

In the digital era like moment, trade electronic or *e-commerce* has been one of the most efficient and effective ways of doing business. Increasing use of the internet has opened an opportunity for Lots company To sell products and services they in a way *online*. Nowadays, a lot of companies utilize *marketplace platforms* such as Tokopedia, Shopee, and Lazada to sell products. Therefore _ it, has a strong online presence, such as an *e-commerce website*, which has become a need for almost all companies.

A number of problems faced by Friends of Digital Marketing Bandung when selling through the *marketplace platform* includes, Limitations of *the Market* the branding Platform tend to display Lots of seller with interface uniform. This matter makes the company difficulty in building an identity as a strong and unique brand To create a Power pull alone among customers.

Change This can influence business strategy and reduce the flexibility company in arranging its operations. Limitations of Customer Data Access, Customer data generated from transactions is often limited or constrained by rules *platforms*. This matter makes company difficult For do in-depth data analysis and optimize marketing strategies.

2. RESEARCH METHODS

Data collection methods that can be used include:

1. Observation

Does observation direct to user application *e-commerce* moment interact with the application? Observation This can done in a way directly by observing the user in a way or using a tool recorder screen To record activity.

2. Interview

Do interviews with users of *e-commerce applications* To understand experience in the company, needs in the company, and problems faced in use application. The interview was done in a way that stares face Joint stap integration.

3. Historical data *analysis*

Analyze historical data available to customers, such as purchase data, interaction data, and historical data customers. This data can give an outlook about the pattern behavior of customers, preferences products, and influencing factors *in retention* of customers.

2.1 Agile Kanban Method

David J. Bland and Alex Osterwalder, In the book entitled "Testing Business Ideas: A Field Guide for Rapid Experimentation", David J. Bland and Alex Osterwalder present the Lean Startup approach and Business Model Canvas that can combined with the method *Agile Kanban*. They describe the method used in Kanban for managing and testing business ideas in a way iterative, possibly more development adaptive, and responsive to need customers. Excess *Agile Kanban* includes :

1. *Agile Kanban* gives a clear visualization of channel work and the status of each task. This matter makes it easier for team developers to understand and manage necessary work done.
2. Flexible Priority Management: This method possible the arrangement of flexible priorities in processing tasks. The team can easily adapt the order of mandatory tasks done based on needs and changes that occur.
3. Increase Team Engagement: With the use of visible Kanban boards, every member team can view and contribute to the project in a way transparent

However, *Agile Kanban* also has a number of Weaknesses including:

1. Lack of Time Constraints: *Agile Kanban* tends to be No give limitation tight time For every task. This matter can cause tasks delayed or time development that is not distributed in a way equally.
2. Not suitable For Project with Request Height Change: If the project's own level requests high change, *Agile Kanban* possible not enough suitable. This method is more suitable For projects with stable needs.

So in conclusion, *Agile Kanban* is a possible approach to developing application *e-commerce* For visually managing channel work and task development.

3. DISCUSSION

3.1 Analysis System

Following is an explanation about the analysis walk from the logged-in user to *The website* is managed by the admin until the Purchase data report :

1 User Login to *Website* :

- Users access *websites* through *browsers* by entering a URL or doing a search
 - The main page or *website* landing page is displayed to the user .
- 2 Management by Admin:
- ✦ Admin logs in to admin account with enter Name user and password.
 - ✦ After logging in, the admin is directed to the admin dashboard page.
 - ✦ From the dashboard, the admin can access management content like add, edit, or delete articles, images, or pages.

3 Arrangement Users by Admin:

- Admin can manage user with access to the settings menu user or management user.
- Admin can access purchasing data via the report menu or analysis.
- In the purchase data report, the admin can see summary purchases, such as amount transactions, total sales, and other data.

4 *Reports* Purchase Data Report :

- Admin has option For *reports* purchase data report

A. Need Functional

Table 1. Need Functional

No-KF	Description
Actor 1	Marketing Admin
KF-001	Login
KF-002	Logout
KF-003	View Products / Services
KF-004	Input Product / Service Data
KF-005	Edit Product / Service Data
KF-006	Delete Product / Service Data
KF-007	Look Gallery Sale
KF-008	Gallery Input Sale
KF-009	Edit Gallery Sale
KF-010	Wipe Gallery Sale
KF-011	Purchase Data
KF-012	Report Report Purchase

Actor 2	Users
KF-001	Viewing <i>the Website Home Page</i>
KF-002	Viewing Product / Service Pages
KF-003	Viewing the Gallery Page Sale
KF-004	View the About Us Page
KF-005	Orders in Contact

B. Non- Functional Requirements

Table 2. Non- Functional Requirements

No-KNF	Description
KNF-001	The system can executed using Chrome, Mozilla Firefox, and Microsoft Edge browsers
KNF-002	Use Internet Network.

3.2 Use Case Diagram

Diagram Use case is the process of describing For showing the connection between the user and with system that has been designed. Or can be interpreted as A technique utilized For development device soft To use know need functional from system these: 1. UsaCase Admin Diagram

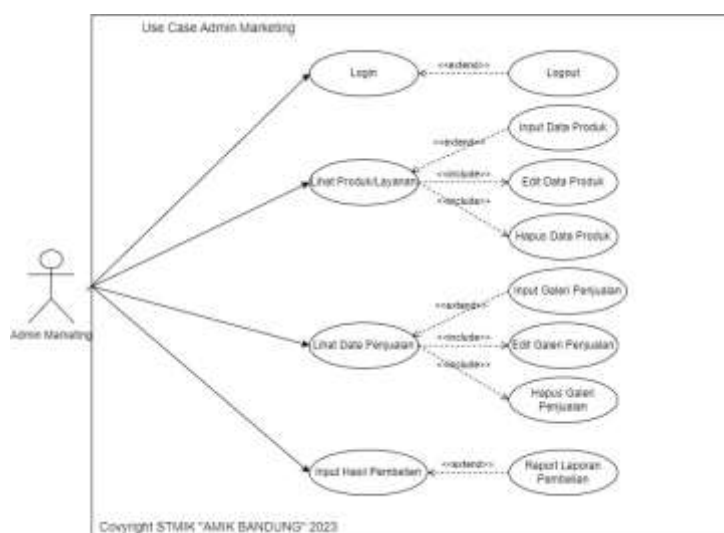


Figure 1. Marketing Admin Use Case Diagram

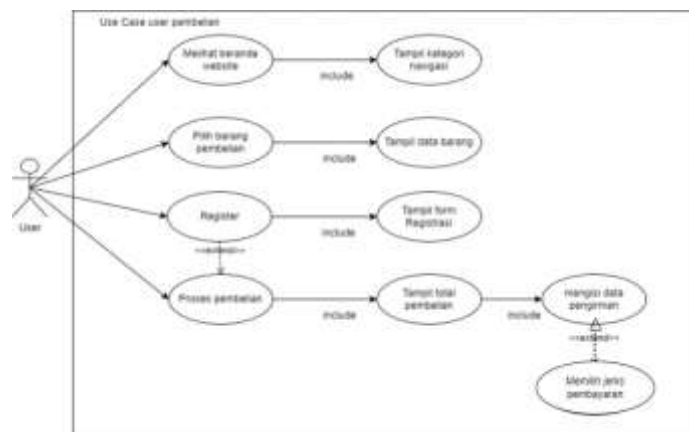


Figure 2. Use Case User Diagram

3.3 Use Case Definition

Table 3. Definition of Use Case

Use Case Admin	Description
Login	Process for entering to system
Logout	Process for going out from the system
Look Product	Viewing process page product
Input Product Data	Process for input product data
Edit Product Data	The process of changing product data
Delete Product Data	The process of deleting product data
View Sales Data	Process for seeing the sales data page
Gallery Input Sale	Process for inputting sales data
Edit Gallery Sale	The process of changing sales data
Wipe Gallery Sale	The process of deleting sales data
Input Data Results	The process of inputting data results
Report Report purchase	Sending process results purchase data report

Table 4. User Table

Use Case Users	Description
Home Website	Process for entering to in home page website
Products / Services	Process for entering system product/service

Gallery Sale	Process for enter to in gallery sale
About Us	Process for entering about Us
Contact/ Order	Process for entering to contact / order

3.4 Class Diagram Design

On the picture under This is a Class Diagram used in the design of the system built :

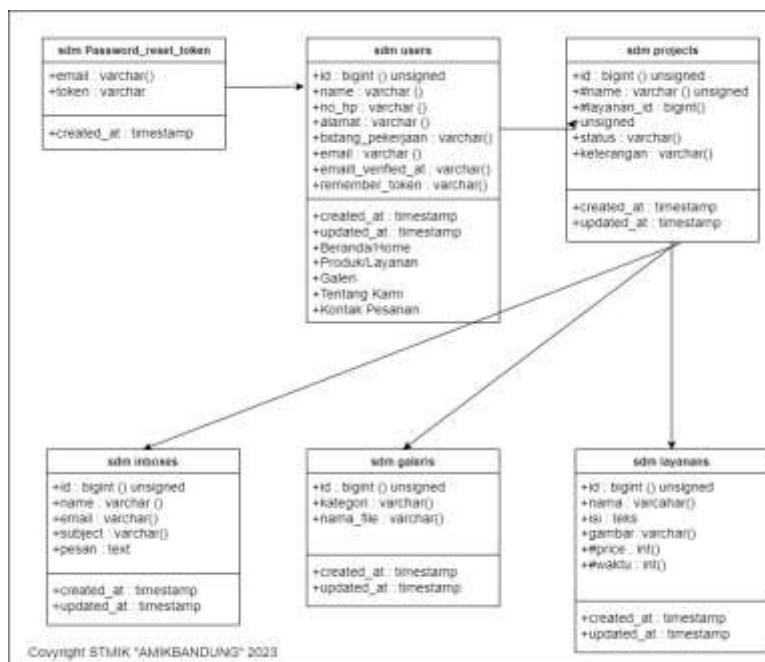


Figure 3. Class Diagram Design

3.5 ERD Data Design

Designing a Data Entity-Relationship Diagram (ERD) is an internal process analysis and design of the database used To represent the connection between entities (objects) in something system . ERD is a visual tool that maps deep data structures diagrams using symbols. Following is an explanation from the class diagram about ERD data design :

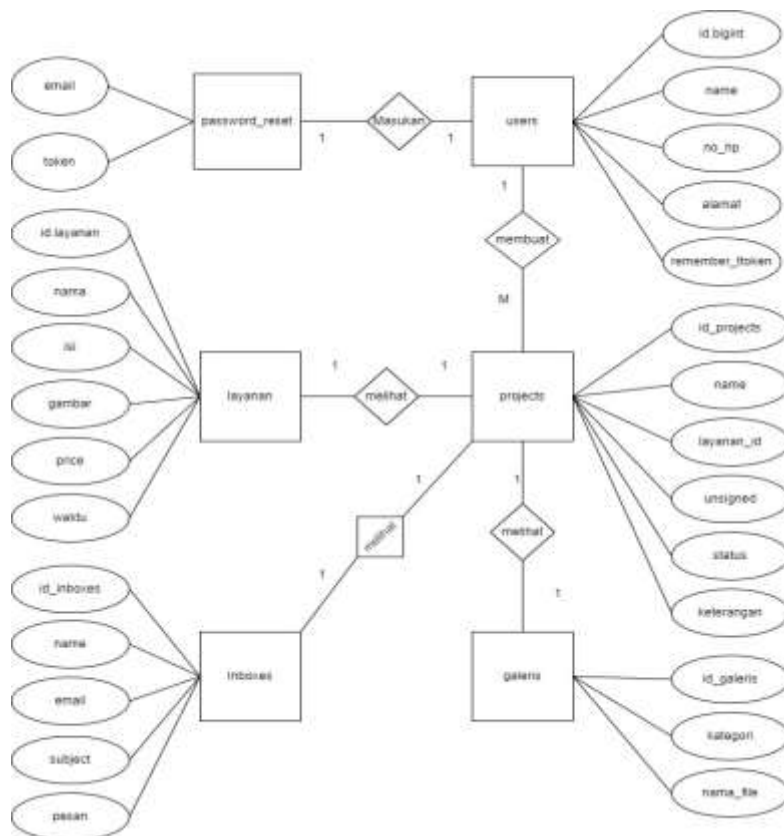


Figure 4. ERD design

In the Data Directory location save and organize files in computer or system file.

Table name: user

Table 5. Users Directory

No	Field name	Data types	Size	Information
1	Id	int	20	User ID (Primary Key)
2	Name	Strings	30	Username
3	Phone number	Varchar	255	user's cellphone number
4	Address	Varchar	255	User address
5	Remember_token	Varchar	100	User tokens

Table Name: password_reset

Table 6. Directory password_reset

No	Field name	Data types	Size	Information
1	E-mail	Varchar	255	Email Password
2	Token	Varchar	255	Password tokens

Table Name: Projects

Table 7. Directory projects

No	Field name	Data types	Size	Information
1	Id_projects	Bigint	20	Id_project (Primary Key)
2	Name	Strings	20	Project name

3	Service_id	Bigint	20	Service_id project
4	Unsigned	Varchar		Unsigned projects
5	Status	Varchar	255	Project status
6	Information	Text		Project description

Table Name: Service

Table 8. Directory service

No	Field name	Data types	Size	Information
1	Service_Id	Bigint	20	Service_Id (Primary Key)
2	Name	Varchar	255	Service Name
3	Contents	text		Service Contents
4	Picture	Varchar	255	Service Image
5	Price	Int	11	Service Price
6	Time	Int	11	Service Time

Table Name: Galeris

Table 9. Directory Galleries

No	Field name	Data types	Size	Information
1	Id_Gallery	Bigint	20	Id_Gallery (Primary Key)
2	Category	Varchar	255	Category Galleries
3	file_name	Varchar	255	file_name Galleries

Table Name: Inboxes

Table 10 Inboxes directory

No	Field name	Data types	Size	Information
1	Id_inboxes	Bigint	20	Id_inboxes (Primary Key)
2	Name	Strings	255	Inbox name
3	E-mail	Varchar	255	Email Inboxes
4	Subject	Varchar	255	Subject Inboxes
5	Message	Text		Inbox messages

4. RESULTS AND DISCUSSION

Test method used To evaluate to what extent a product or system can used with effectiveness by users end. The main purpose of usability testing is To identify possible problems and obstacles faced by the user moment use a product or system in particular and to gather bait to come back about the experienced user.

Table 11. Interpretation of Likert Scores

Likert Score	Interpretation with interval = 20	Choice
1	0% - 19.99%	Not satisfactory
2	20% - 39.99%	Less satisfactory
3	40% - 59.99%	Neutral
4	60% - 79.99%	Satisfying
5	80% - 100%	Very satisfactory

Table 12. Index Percentage of UAT Test Results Perceived Usefulness

No	Question	STS	T.S	N	S	SS	Total	Index%
1	How your opinion about the appearance <i>website</i> " A Friend of Digital Marketing"?	0	1	15	7	7	30	73.33%
2	is our <i>website</i> easy to use?	0	0	13	13	4	30	74%
3	Do you feel the information product or our services are available with clear and complete?	1	11	8	8	2	30	59.33%
4	Is the purchasing process on our <i>website</i> easy and smooth?	0	2	16	8	4	30	76%
5	Are you going to recommend <i>the website</i> to Friends or family?	0	0	15	11	4	30	72.66%
6	are features on <i>the website</i> difficult or No?	0	2	11	10	7	30	74.66%
7	What level of satisfaction shop on our <i>website</i> ?	0	0	14	9	7	30	75.33%

Information :

STS Strongly Disagree **S** Agree **T.S** Don't agree
SS Strongly Agree **N** Neutral

5.

Table 12. Status of UAT Results Perceived Usefulness

No	Aspect Evaluation	Percentage %	Status
1	Appearance or website design	73.33%	Satisfying
2	Easy in use	74%	Satisfying
3	is the Information Product clear	59.33%	Neutral
4	purchasing process on the website is easy	76%	Satisfying
5	Recommend website to Friend	72.66%	Satisfying
6	Expectations of Features on the Website	74.66%	Satisfying
7	Satisfaction shop on the website	75.33%	Satisfying

Conclusion:

From the results of UAT's testing, the Index percentage earned on each statement pointed out average results the percentage is 74.66% With results, then it is stated in testing to achievement utility application stated worthy accepted with satisfactory status.

6. CONCLUSION

Conclusions of the title " Design Get up Application *E-Commerce* Based *Web* Using the Agile Kanban Method (Case Study on Friends of Digital Marketing Bandung)" is that the study aims To design and build an application *e-commerce* web-based at the company " Sahabat Digital Marketing" Bandung.

1. Application development forecast production has been tested through unit scenario testing using a black box of 12 requirements functional application Already walk with Good.
2. Result Index percentage earned on each statement pointed out average results the percentage is 74.66% With results, then it is stated in testing to achievement utility application stated worthy accepted with Satisfactory status.

7. SUGGESTION

The conclusion This is an expected application *e-commerce* this web based can succeed in supporting displacement sales from the *marketplace* to the *website* Apart from that, As for suggestions for research Next, the application *website* Can developed with added need in accordance with later business processes will develop. other. An additional feature will ensure the application is still relevant and interesting for the user.

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