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## Peranan system database Terhadap industry Kuliner Daerah

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### Abstract

The advancement of information technology today is fueling the growth in the number of internet users. In the business world, the role of technology is very important, and it can be said that it has become a primary need for entrepreneurs in this period. Likewise about culinary that has used the internet network to present a variety of good information from information on place, taste, presentation and price in the field

of information technology. But for culinary information in the city of Medan on a website, while it is still incomplete and there is no website that specializes in culinary tourism in Medan and its reservations. Therefore, it is necessary to design a web-based culinary tourism information system in Medan City to make it easier for people to find culinary varieties in the city of Medan.

**Keywords:** Web-based information system, PHP, MySQL, Culinary tourism, Medan

### 1. Introduction

This planning is motivated by the absence of a website that specializes in introducing culinary delights both in the city of Medan and in Indonesia. The development of technology is growing rapidly nowadays. These advances make information technology a necessity that can no longer be ignored. In the business world, the role of technology is very important and it can be said that it has become a primary need for entrepreneurs at this time. For the community this information system is very necessary because there are still many people who know little about the culinary variety in the city of Medan.

With the creation of this information system, it is hoped that it can help make it easier for people to find culinary attractions and food menus that have never been tried by the community. There are still many culinary entrepreneurs who have not used internet facilities as a marketing tool due to a lack of understanding about the internet and its applications as well as limited costs.

This makes people who want to know where to eat in the city of Medan have to open websites one by one on the internet. With these problems, the availability of internet applications that are easy to use in marketing culinary businesses will be able to increase the use of the internet in marketing culinary businesses. Of course, at an affordable cost, even small businesses can use it. A web that displays / searches for places to eat desired by the user efficiently and also displays the possibility of other foods that are given a positive response by different users. Based on the description above, the researcher is interested and tries to make an application to assist in providing information related to culinary in Medan, the authors choose the title "Web-Based Information System for Culinary Tourism in Medan City". To overcome that discussion does not deviate from the purpose and primary goal posts, they are given boundary problem as follows:

1. The information system of culinary tourism is restricted to the presentation of information A complete about culinary in Medan and the process pe mesanan to get to the destination: 8
2. Not discussing special promotions or packages;
3. Does not discuss the registration fee for culinary business owners.

### 2. Literature review

#### 2.1 System

The system is a set of interrelated or integrated elements intended to achieve a goal. As an illustration, if in a system there are elements that do not provide benefits, then these elements can certainly not be elements of a system (Kadir, 2013).

#### 2.2 Information

Information as data that has been processed in such a way as to increase the knowledge of someone who uses the data (McFadden, *et al.*, 1999)<sup>[3]</sup>. Information is data that has been processed into a form that is meaningful to the recipient and useful in making current or future decisions (Davis, 1999). From the definition of information according to some of these experts, it can be concluded that information is data that has been processed which has meaning so that it is useful for its users.

### 2.3 E-Commerce

E-Commerce is part of elifestyle which allows buying and selling transactions to be carried out online from any corner of the place<sup>[5]</sup>. There are several definitions of E-commerce from several sources including the following: 1. Associated with buying and selling goods or services over the Internet, especially the World Wide Web. 2. An act of conducting business transactions electronically by using the Internet as the main communication medium. 3. Selling merchandise or services over the Internet. Another definition of E-Commerce is that E-Commerce is a way of shopping or trading online or direct selling that utilizes Internet facilities where there is a website that can provide "get and deliver" services. ECommerce will change all marketing activities and also cut operational costs for trading activities.

### 2.4 Marketplace

Marketplace is a market place that is provided online, where every seller and buyer can promote and exchange goods or services electronically so as to minimize weaknesses in traditional transaction systems<sup>[4]</sup>. e-Marketplace can be divided into three types, namely: e-marketplace Private, public and consortium marketplaces. The three types of e-Marketplaces have different tasks such as private e-Marketplaces that are more related to businesses carried out by individuals, public e-Marketplaces relate to general goods and services provided by governments/agencies/companies. Meanwhile, the consortium e-Marketplace is a combination of several companies that work together to complete a project.

### 2.5 Start Up

Definition of Startup is an institution created to create new and innovative products or services in a high uncertainty<sup>[3]</sup>. Everyone who creates a new product or service under conditions of high uncertainty is an entrepreneur, regardless of whether he or she is self-employed, working for a for-profit company or a non-profit organization.

### 2.6 Culinary tour

The word culinary tourism comes from a foreign language, namely voyages culinaires (France) or culinary travel (English) which means travel related to cooking. According to the International Culinary Tourism Association (ICTA), culinary tourism is a unique eating and drinking activity carried out by every traveling traveler. In contrast to other tourism products such as marine tourism, cultural and natural tourism which can be marketed as the main tourism product, culinary tourism is usually marketed as a supporting tourism product<sup>[1]</sup>.

### 2.7 UML (Unified Modeling Language)

UML (Unified Modeling Language) which means the standard modeling language. Saying as a language, means that UML has syntax and semantics<sup>[9]</sup>. When we create models using UML concepts there are rules that must be followed. How the elements in the models that we create relate to one another must follow existing standards. UML is not just a diagram, but also tells the context. When a customer orders something from the system, how is the transaction going? How does the system resolve errors that occur? How is the security of the system that we make? And so on can be answered with UML. UML is applied for a specific purpose, usually among others:

1. Designing software.
2. Means of communication between software and business processes.
3. Describe the system in detail for analysis and find out what the system needs.
4. Document existing systems, processes and organizations. UML has been applied in the fields of investment banking, health institutions, defense departments, distributed systems, work equipment support systems, retail, sales and suppliers.

### 2.8 Internet

The internet is a computer network that connects between networks globally, the internet can also be called a network in a wide network<sup>[3]</sup>. Like local computer networks and area computer networks, the internet also uses the same communication protocol, namely TCP/IP (Transmission Control Protocol or Internet Protocol).

### 2.9 Web server

Web server is a computer consisting of hardware and software. In physical form and how it works, web server hardware is no different from a home computer or PC, the difference is its capacity and capability. The difference is because the web server works as a service provider that can be accessed by users many users, so it takes a large capacity and capability than a PC. Software support is needed so that the web server can run optimally<sup>[6]</sup>.

## 3. Methods

This culinary application in the city of Medan uses the waterfall method. Methods waterfall is a systematic approach that sequentially on software development with requirement specifications yag adequate. The waterfall method is shown in Figure 1 below.

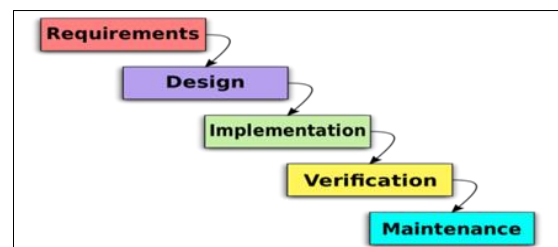


Fig 1: Waterfall method

### 3.1 Needs Analysis

This stage of system development requires communication with the aim of understanding the software expected by the user and the limited software. This needs analysis was obtained by interview and observation.

### 3.2 System planning

The main purpose of system design in general is to provide an overview of the system to be built and understand the flow of information and processes that exist in the system. The design is done by discussing system models using UML. UML drawing begins with use case diagrams, activity diagrams, sequence diagrams, and class diagrams.

#### a. Use case diagrams

Use Case serves to explain all the final results related to the application is the responsibility of the cashier. The following is an image of the use case diagram:

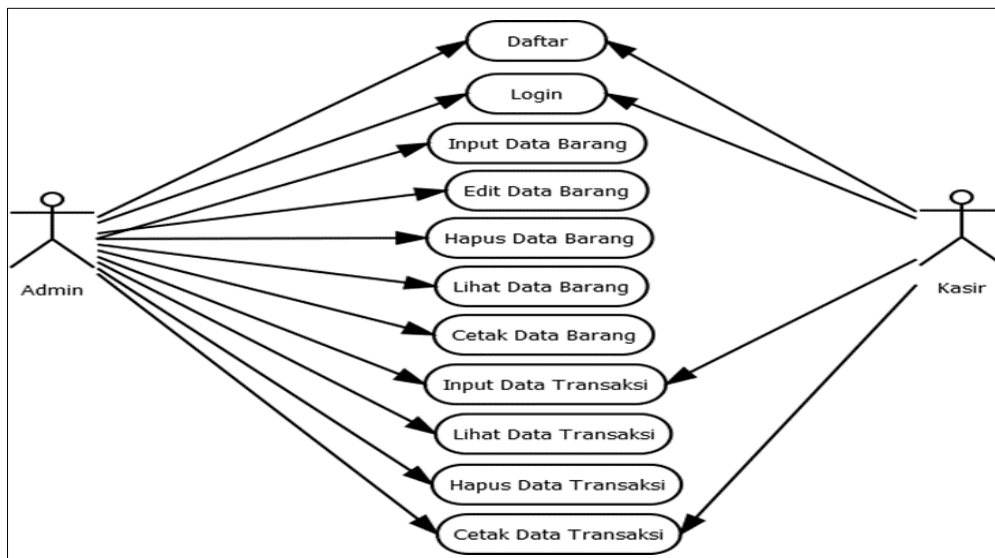


Fig 2: Use case diagrams

From the use case diagram in Figure 2, it is explained that all activities are carried out by the admin/cashier.

- b. Buyers Before handling any process, each buyer must first login. The process handled by a buyer is ordering products, paying for orders and confirming products sent.
- c. **Activity Diagrams**

This diagram is an illustration of the activities carried out by the system in a web-based application, such as the process of adding orders made by the cashier to transactions and printing payment receipts. So in other words, this diagram shows how these activities depend on each other. The activity diagram on the system built is described as follows:

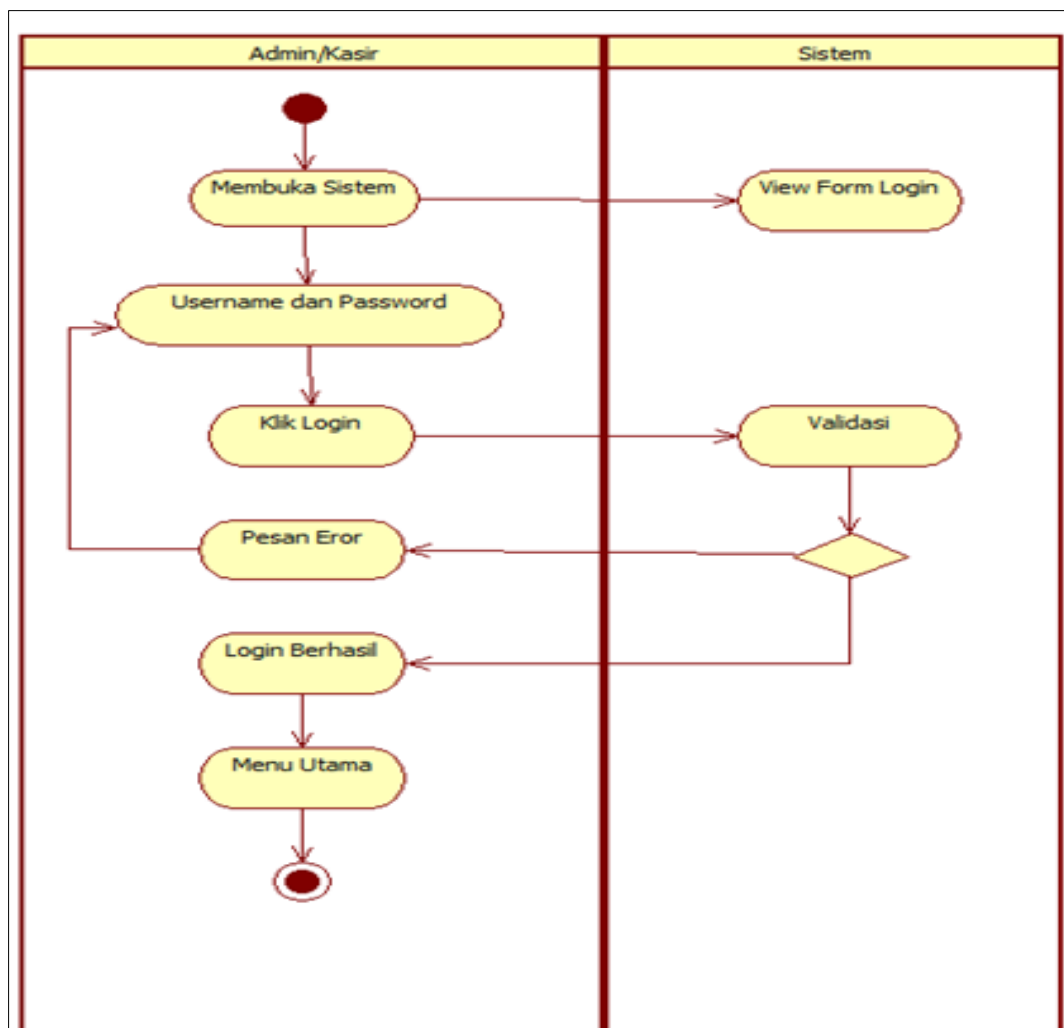


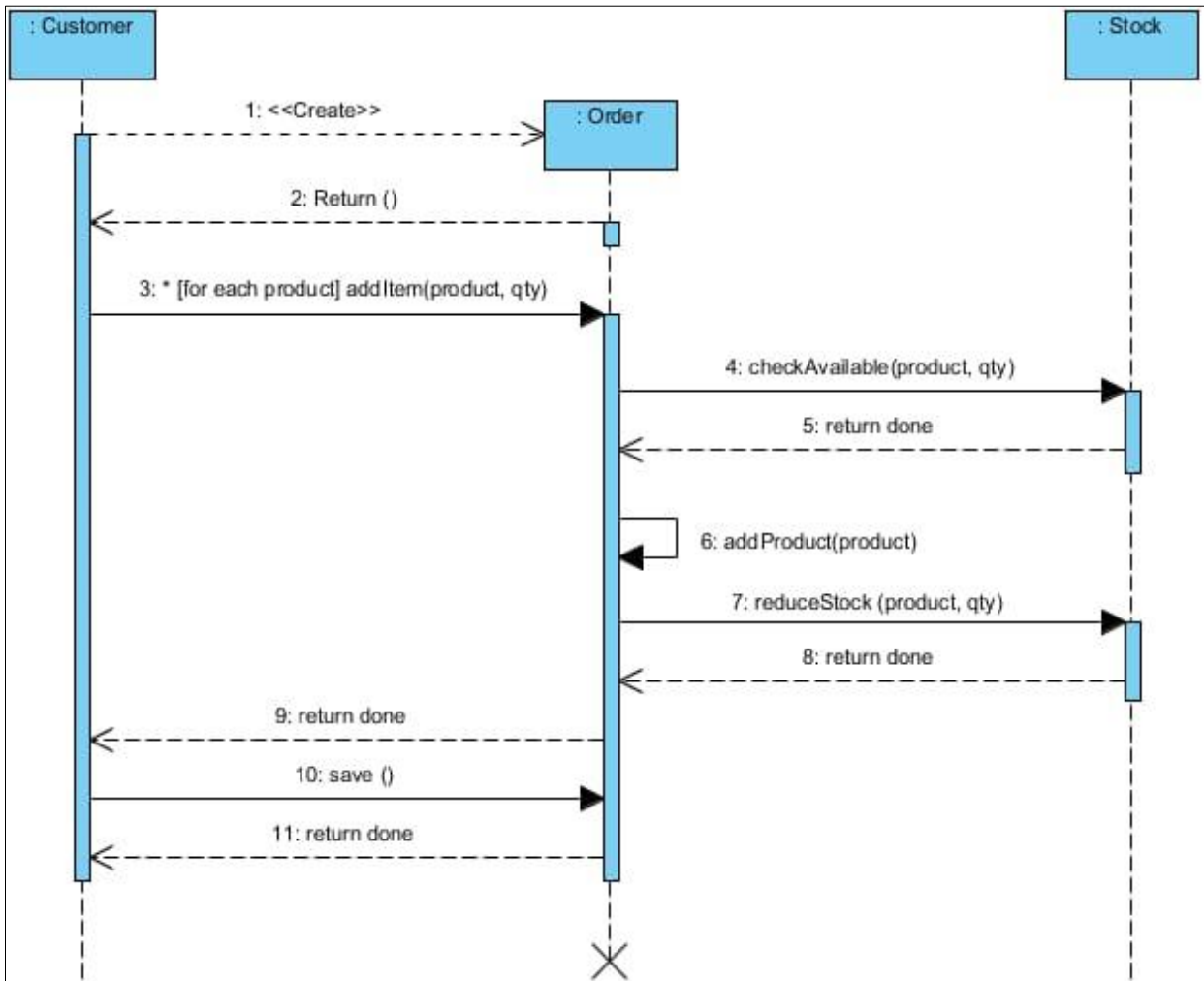
Fig 3: Activity diagram

Activity Diagram Register This activity describes or explains how a user registers as a member.

**d. Sequence Diagrams**

Sequence Diagram describes the time sequence aspect of the message that is delivered and describes the

organizational structure aspect of the object that sends and receives messages in the built. The Sequence diagram on the system to be built is described as follows. Sequence Diagram Register Describes the steps taken by visitors in the registration process to get an account.



**Fig 4:** Sequence Diagram

**e. Class Diagram**

Class Diagram is a static model that describes the structure and description of classes and the relationship

between classes. To be able to explain in more detail about the attributes and methods contained in each class diagram, it will be explained as shown in the figure.

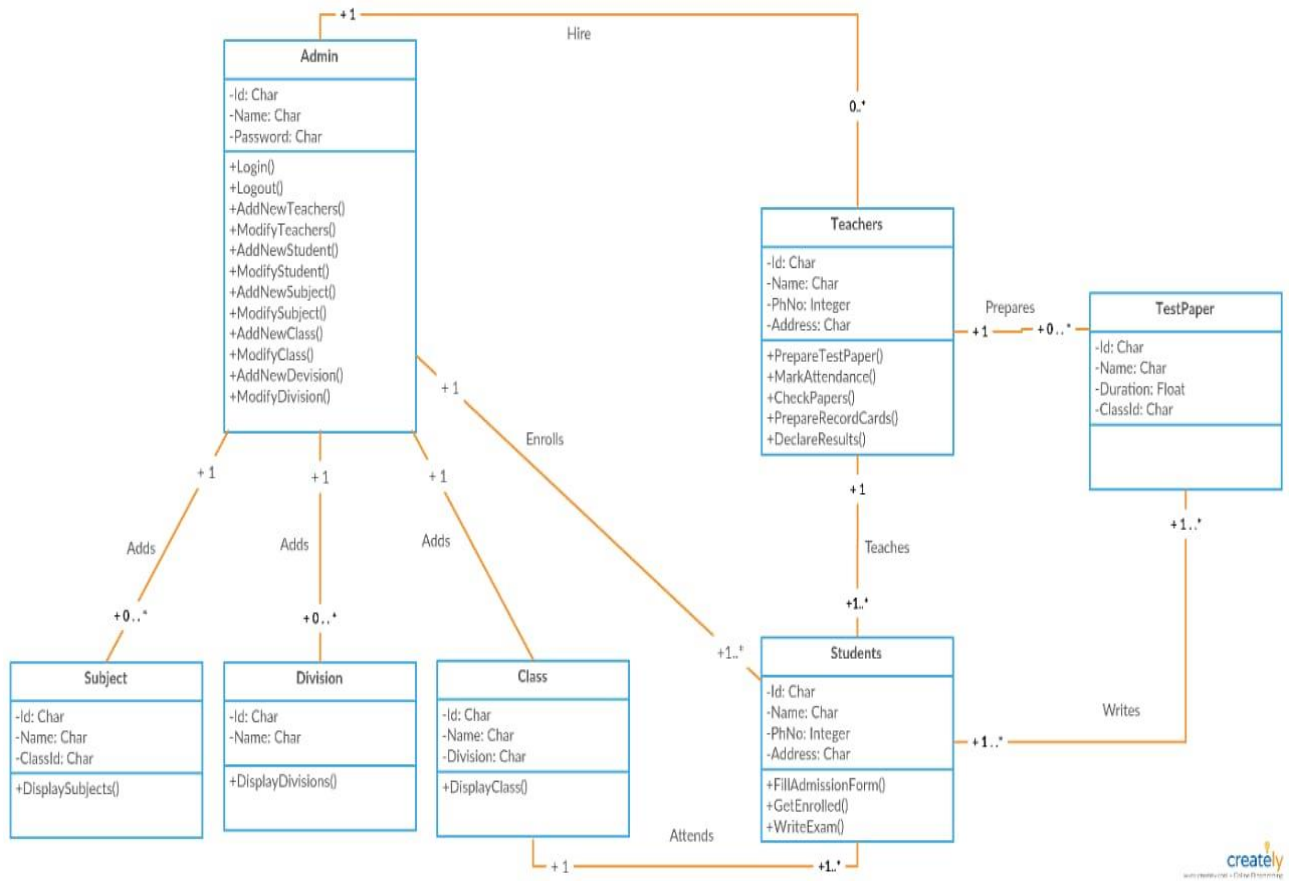


Fig 5: Class diagram

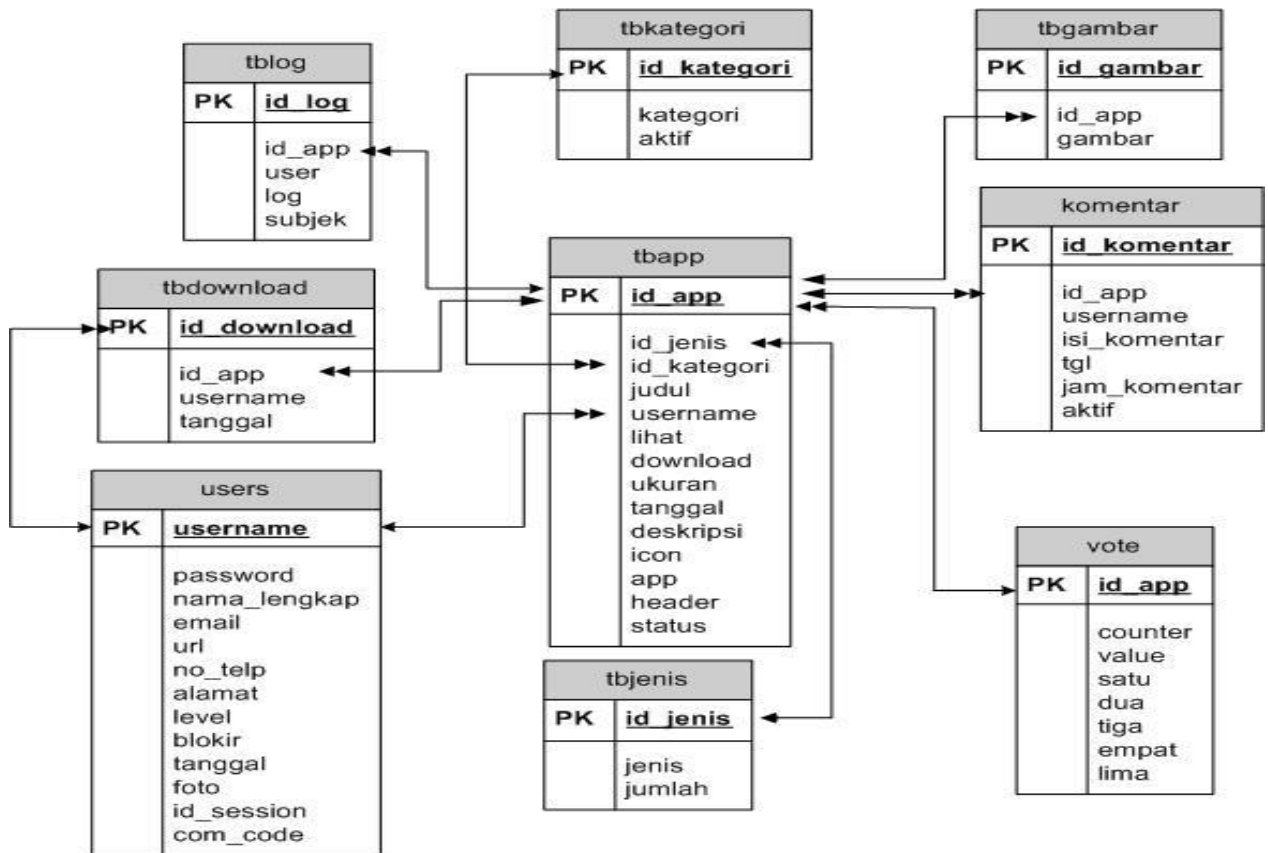


Fig 6: Relationships between tables



**f. Relationships between tables**

The relationship between tables in the database to be built can be seen in Fig 6.

**3.3 Development**

Making this application using several supports such as bootstrap, as a display application and python django as a programming language.

**3.4 Testing**

Testing of this culinary information system uses the black box method which is more focused on the functional system.

**3.5 Implementation**

This culinary information system can be implemented with a local network, for example using localhost. This system can be operated without an internet location and does not even have to be integrated with hosting services.

**4. Result and discussion**

The result of this system is a system that has several pages to make it easier for a culinary shop to process transactions between sales and purchases.

Based on the results of black box testing, it shows that this system has been running well in terms of functionality and no errors were found in the system. This system does not rule out the possibility of errors in the future so it takes time to perfect the system. In the web-based culinary tourism information system in the city of Medan that was built there are four access rights that can use the system, namely administrators, users (sellers and buyers), and general visitors. Each page is described as follows: The general visitor page is a page that can be accessed by anyone who visits or opens a website that has been built. The pages that can be accessed are:



Fig 7: The main view of culinary tourism



Fig 8: Product menu display

## 5. Conclusion

Based on the results of the tests that have been carried out, the authors draw several conclusions, including the following.

1. Making a culinary tourism website is able to support the marketing process more evenly and affordable without being limited by space and time and help culinary entrepreneurs introduce their business.
2. By making a good design, it can provide an attractive appearance so that visitors get satisfaction in searching the information provided by the culinary web of the city of Medan.
3. In its development, the possibility of this system can occur various errors that require maintenance and monitoring for system improvement. So it is better if it is developed with data that appears based on a specified time period.

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