

DEVELOP WEBSITE DUASATU WEDDING ORGANIZER USING SPRING BOOT

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ABSTRACT

Technology is becoming faster and more reliable. Many products have been developed with technology, especially websites. Nowadays, the internet has become our daily basis for anything like browsing many websites, taking online courses, and many more. Website is being used in many fields, especially for business. Dua Satu Wedding Organizer is one of the small businesses that hasn't gone digital. Placing an order in Dua Satu Wedding Organizer is still conventional. Our goal in this research is to inform the client about the wedding packages and to place orders more efficiently. The method used in developing the website is Agile Development with stages including planning, implementation, testing, documentation, deployment, and maintenance. We use Spring Boot for website development. Research has shown that the ordering process through the website is more efficient as the processing of order data and delivery of information is recorded faster and better.

Keywords: Website, Spring Boot, BCrypt, JWT

INTRODUCTION

Transaction in the world has become busy and busier. The increase in the transaction is related to technology. Technology is being used right now for every aspect. The continuous improvement in technology is affecting every aspect, especially the economy. Not only because the pandemic is spreading so quickly that everyone must be in their home, but also assert they to push the boundaries.

Dua Satu Wedding Organizer is a wedding organizer that has been handling many clients since 2021. They are one of the wedding organizers that hasn't gone digital completely. When clients want to place some orders, they need to either go to Dua Satu Wedding Organizer place itself or contact them. Often, the email and chats from clients are so numerous that Dua Satu Wedding Organizer cannot handle them properly. Because of that, the solution of developing a website for informing the client about packages and placing an order is needed. We use Spring Boot for the Back End of the Dua Satu Wedding Organizer website. For security, we use JSON Web Token and BCrypt on the website.

RESEARCH METHODS

For the research methods, we are using the application development method. This application development uses Agile Method which is an approach from Software Development Life Cycle (SDLC). SDLC is an approach consisting of steps for analyzing and designing a system that is developed through the use of cycles that are more specific to the activities performed (Pratasik & Rianto, 2020).

Here are stages of Agile Development for development website Dua Satu Wedding Organizer.

1. Planning

This stage creates system planning that will be developed by collecting data from user with interview via WhatsApp to get the user needs.

2. Implementation

In this stage, we are implementing from planning stage by creating program documentation with UML and UI with JavaScript and Bootstrap.

3. Testing

To see if the program is ready, we are using manual testing to test our program because if we find some error and bugs in website, we can fix it easily for this research.

4. Documentation

In this stage we do documentation module and function that has been implemented in website to facilitate further development for team.

5. Deployment

For the deployment, we are using local deployment to simulate the placing order in program.

6. Maintenance

Maintenance is conducted periodically to keep the system secure and minimalize system failure, because system is not necessarily free from system failure (Zulkarnaini, M. Fauzan Azima, and S. Nur Laila, 2019).

RESULTS AND DISCUSSION

The architectural design uses a class diagram, activity diagram, and architecture scheme. Then for database design using entity relationship diagram (ERD) and schema diagram.

Class Diagram

Class diagrams are used to visualize the structure of the classes of a system and are the most widely used type of diagram.

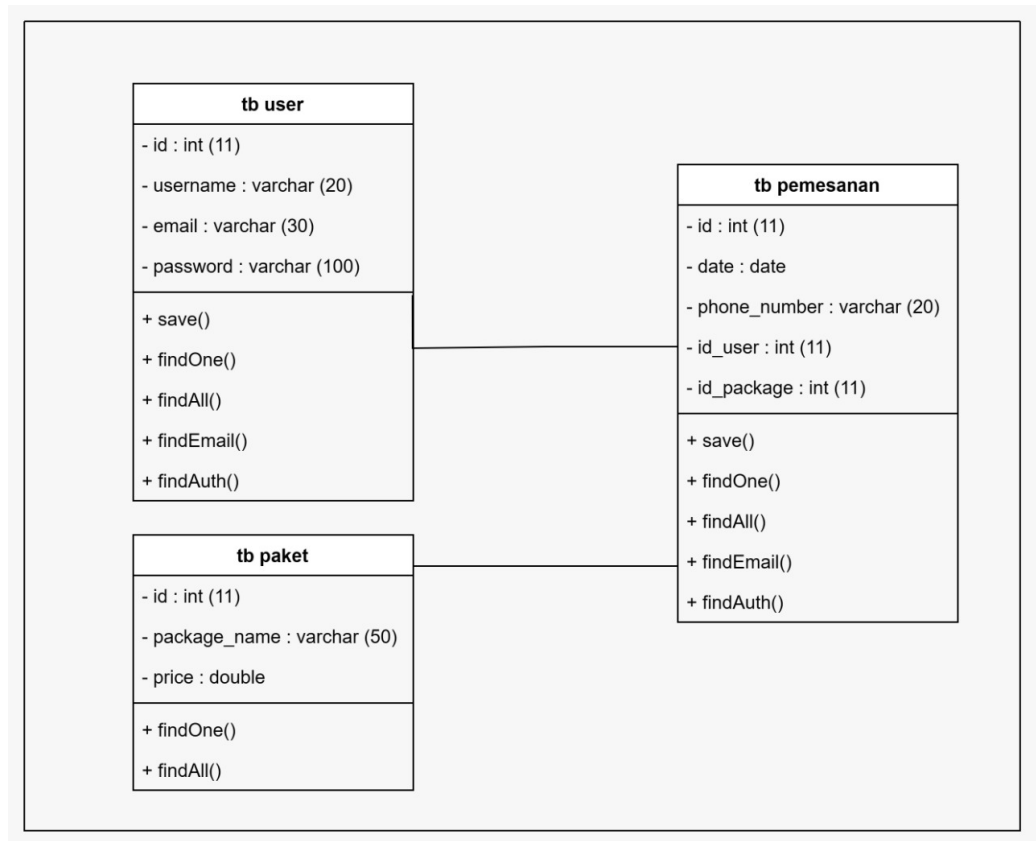


Figure 1. Class Diagram for Dua Satu Wedding Organizer Website
Activity Diagram

Activity diagrams describe the various activity flows in the system being designed, how each flow begins, the decisions that may occur, and how they end (Kurniawan and Syarifuddin, 2020). The customer comes to the website Dua Satu Wedding Organizer to order a wedding, if the date of the order has not been ordered by the customer, then the order data will be stored in the database, if the date of the order has been ordered it will display information to the customer.

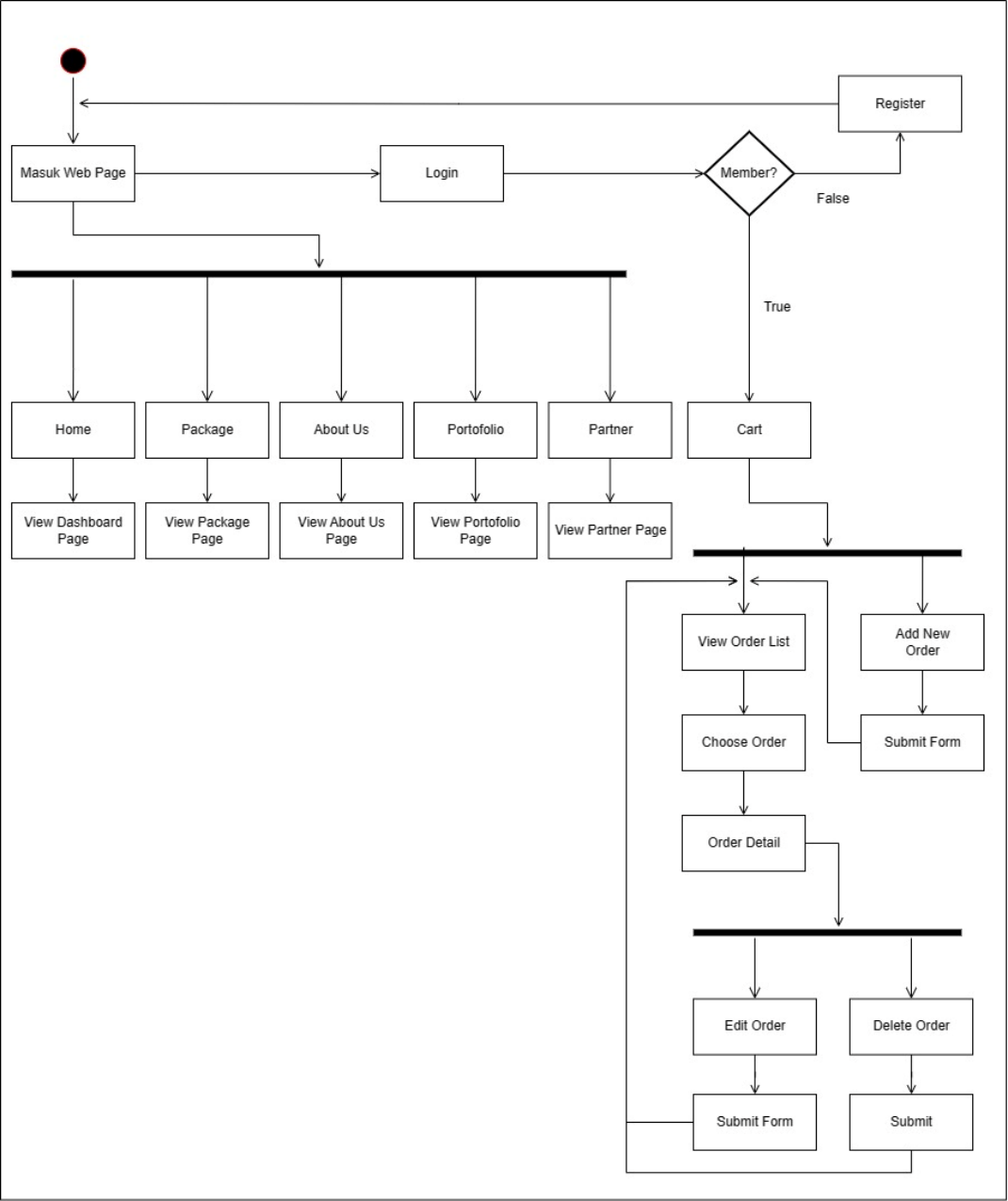


Figure 2. Activity Diagram for Dua Satu Wedding Organizer Website

Architecture Scheme

The architecture scheme for Dua Satu Wedding Organizer is as follows.

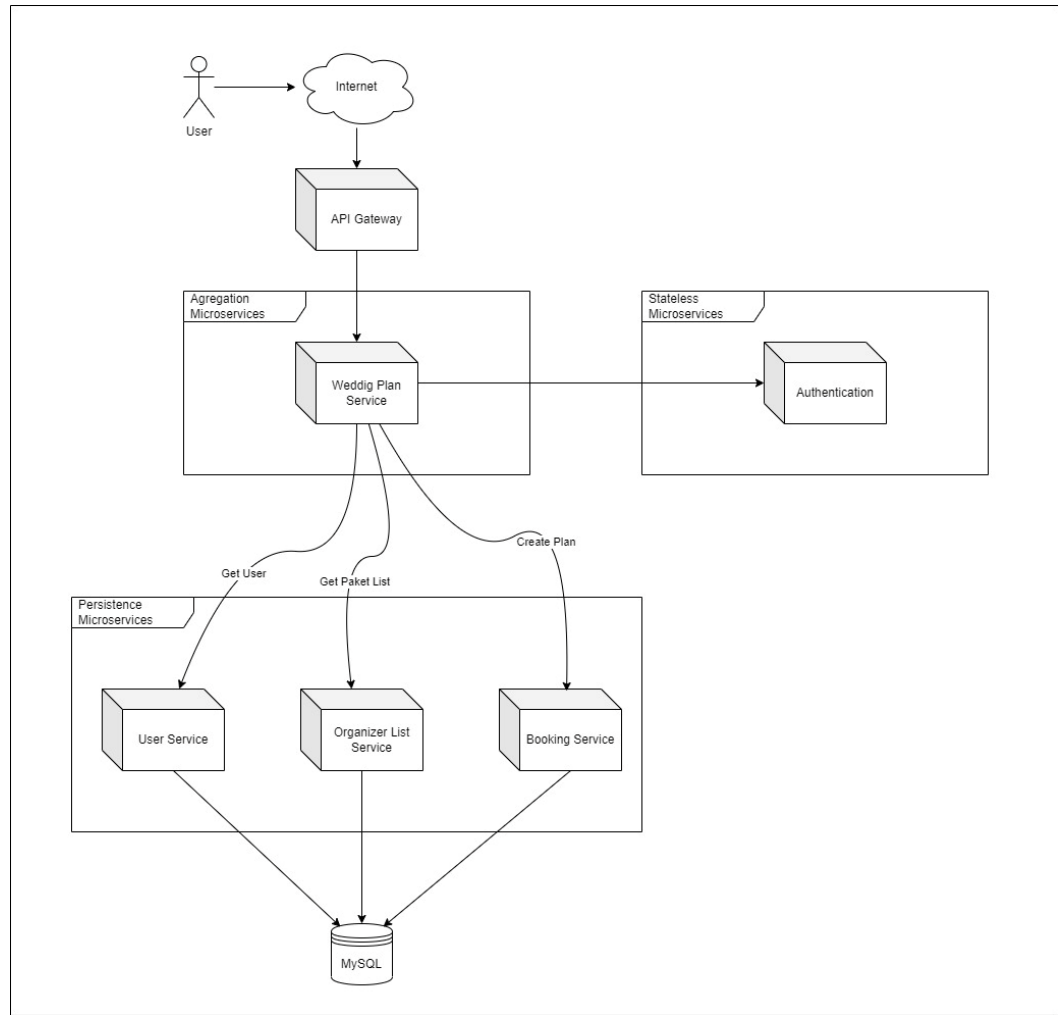


Figure 3. Architecture Scheme for Dua Satu Wedding Organizer Website

Entity Relational Diagram

An entity relational diagram is a set of entities and a set of relations that are described further through several attributes that describe all the facts of the existing system (Suhari, A Faqih, et al., 2022). The ERD for Dua Satu Wedding Organizer is as follows.

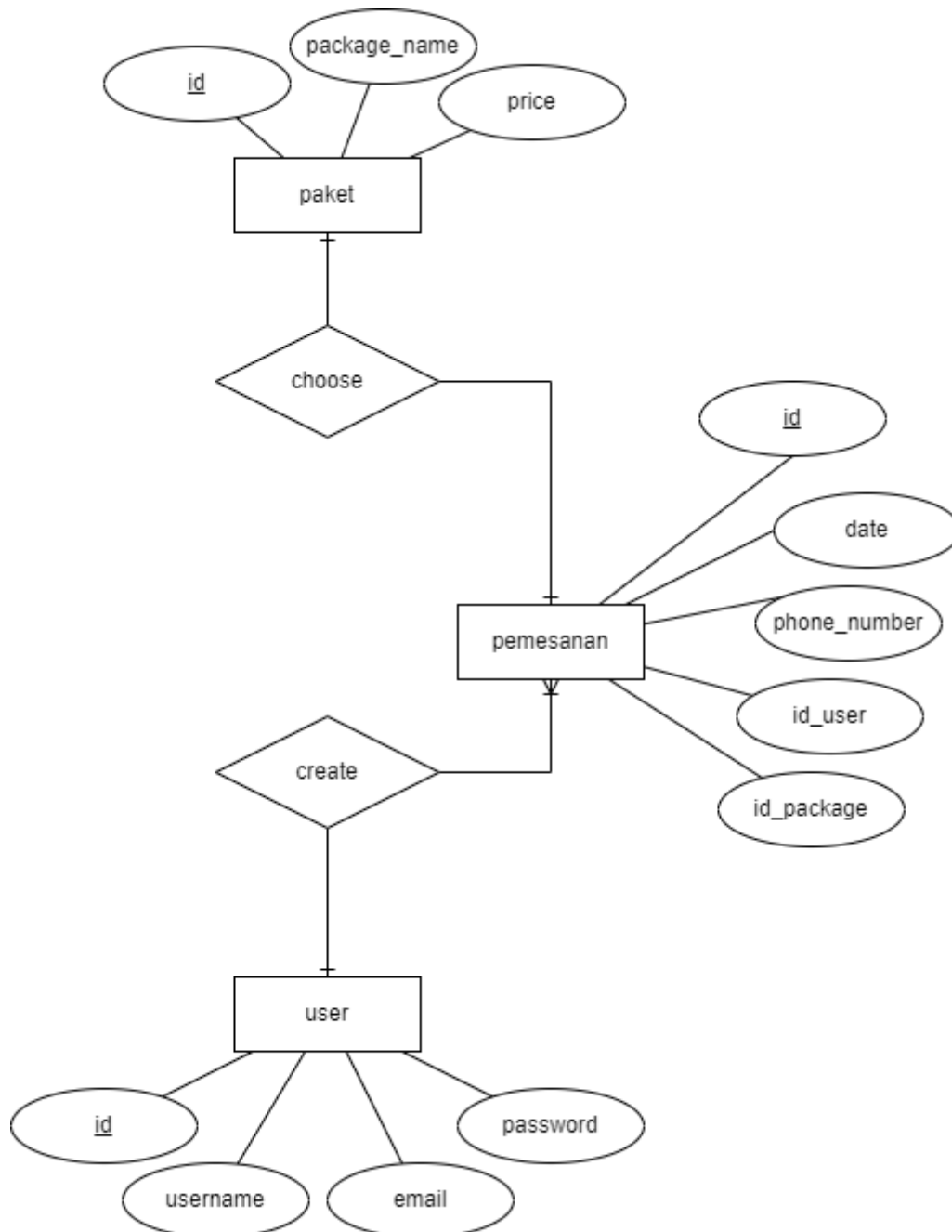


Figure 4. Entity Relation Diagram for Dua Satu Wedding Organizer Website

Schema Diagram

A schema diagram is a notation for describing a database logical model. This model is used to describe the database contained in the Dua Satu Wedding Organizer Website.

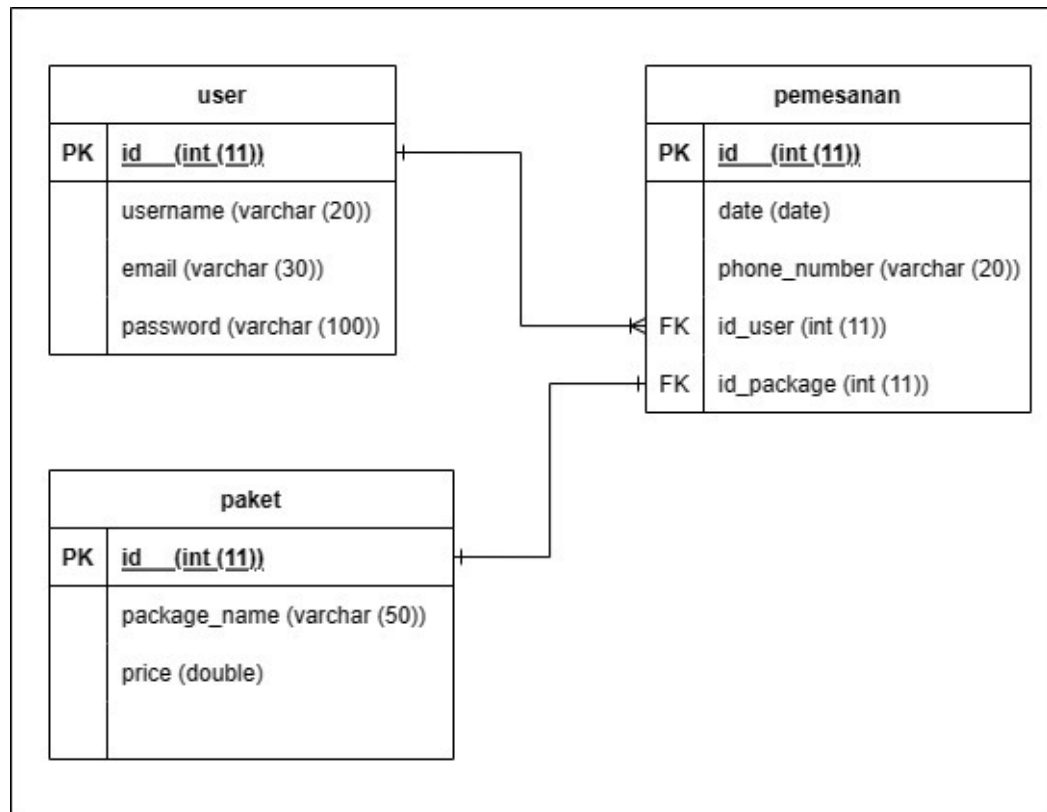


Figure 5. Schema Diagram for Dua Satu Wedding Organizer Website

Implementation

After planning, we continue to implement the plan for developing Dua Satu Wedding Organizer Website. We are using JavaScript, Bootstrap, and Axios for Front-End. We also use Java, Maven, and Spring Boot for Back-End. For security, we are using JSON Web Token (JWT) for auth and BCrypt for password protection. Below are figures of our implementation.

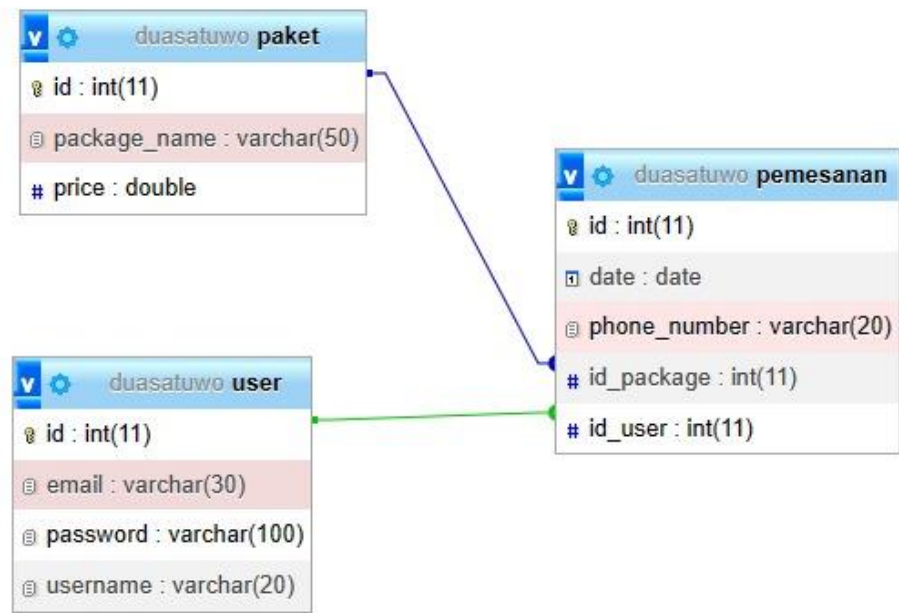


Figure 6. Implemented Database from ERD and Schema Diagram

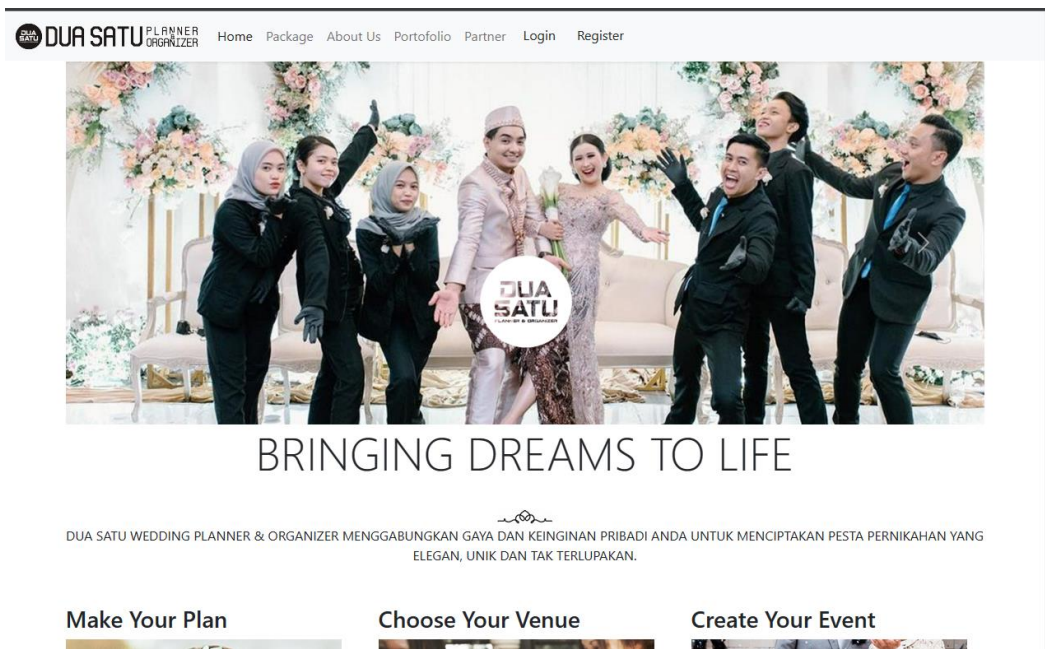
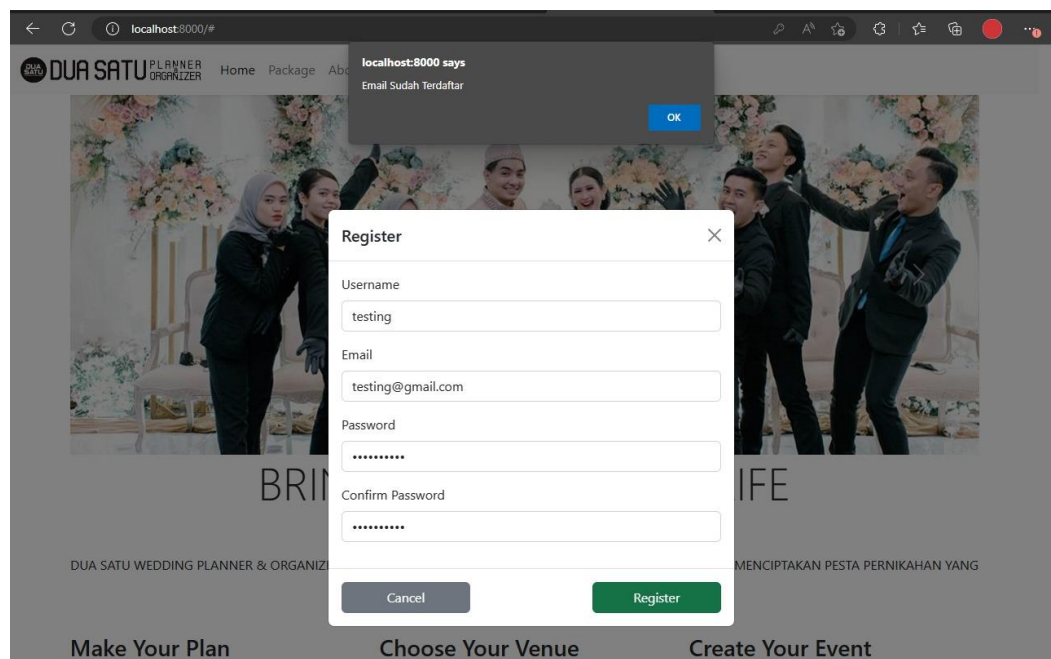


Figure 7. Homepage of Dua Satu Wedding Organizer Website



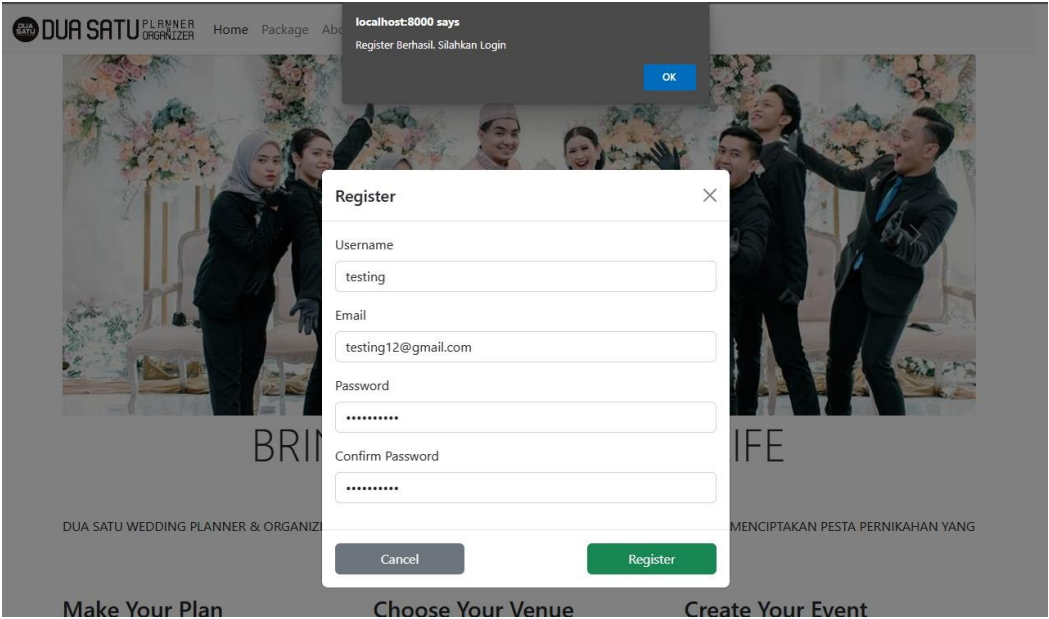


Figure 10. Registration Success

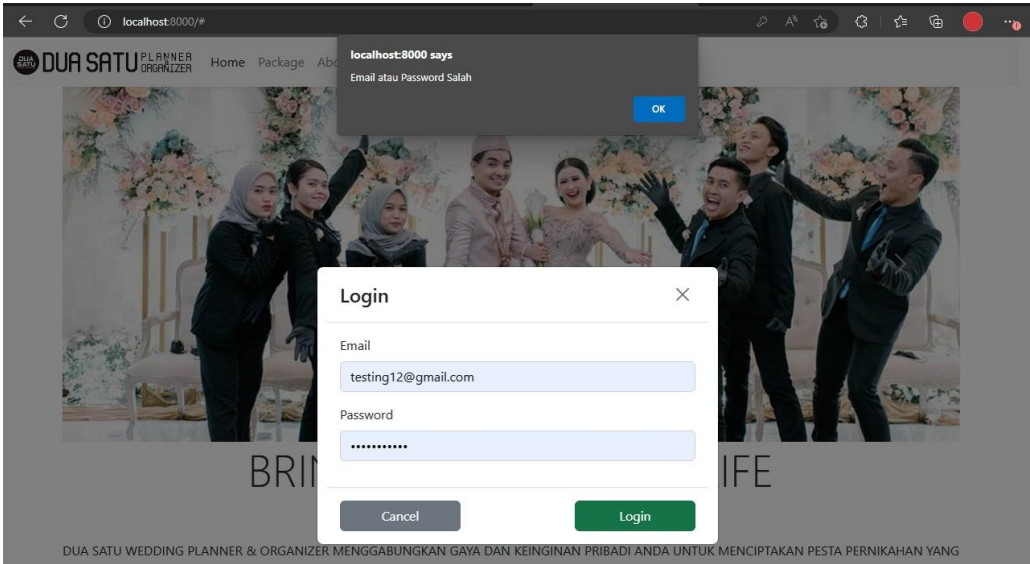


Figure 11. Login Failed

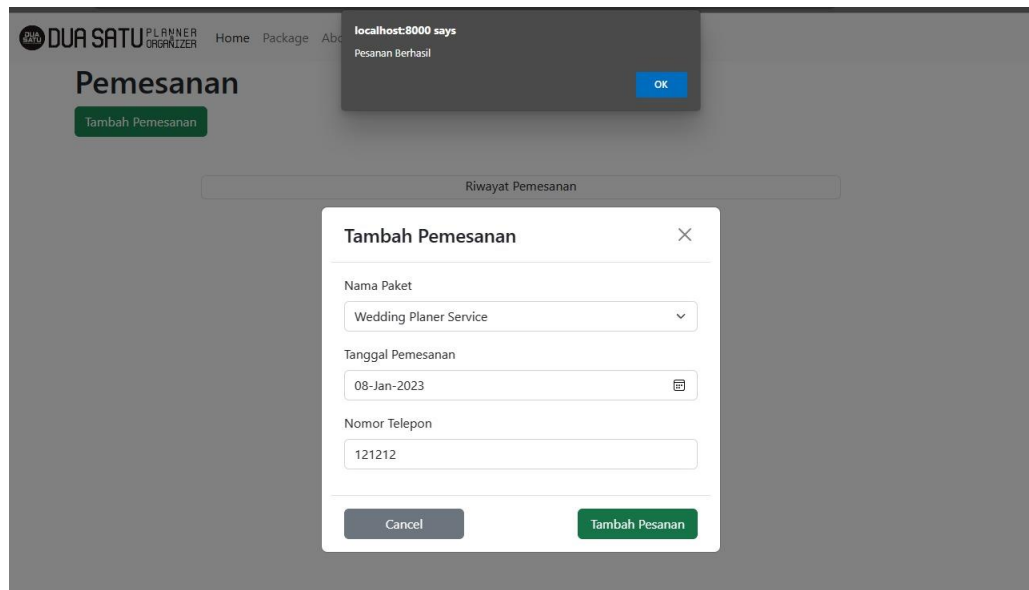


Figure 12. Placing Order Success

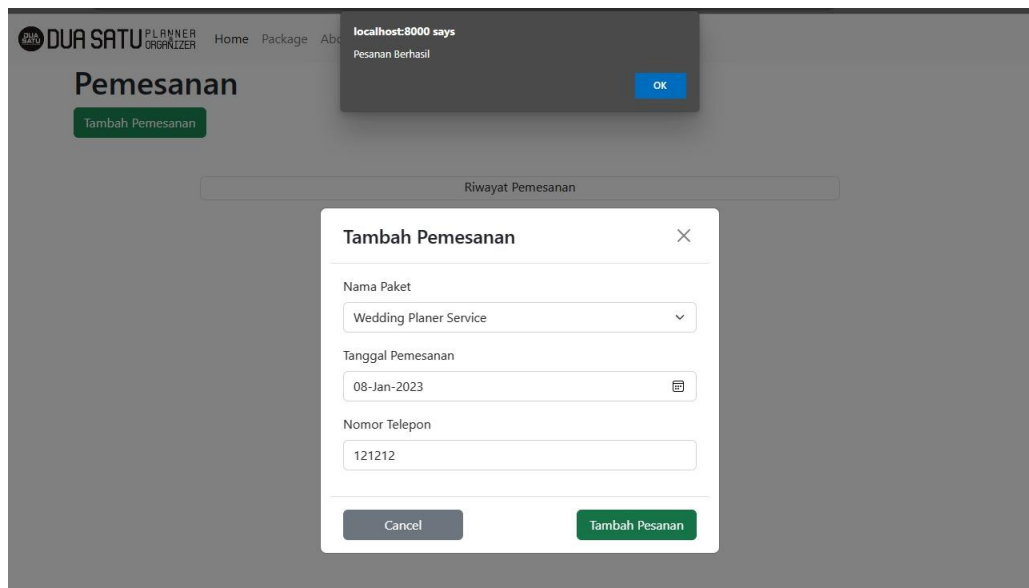


Figure 13. Placing Order Failed If Using the Same Date

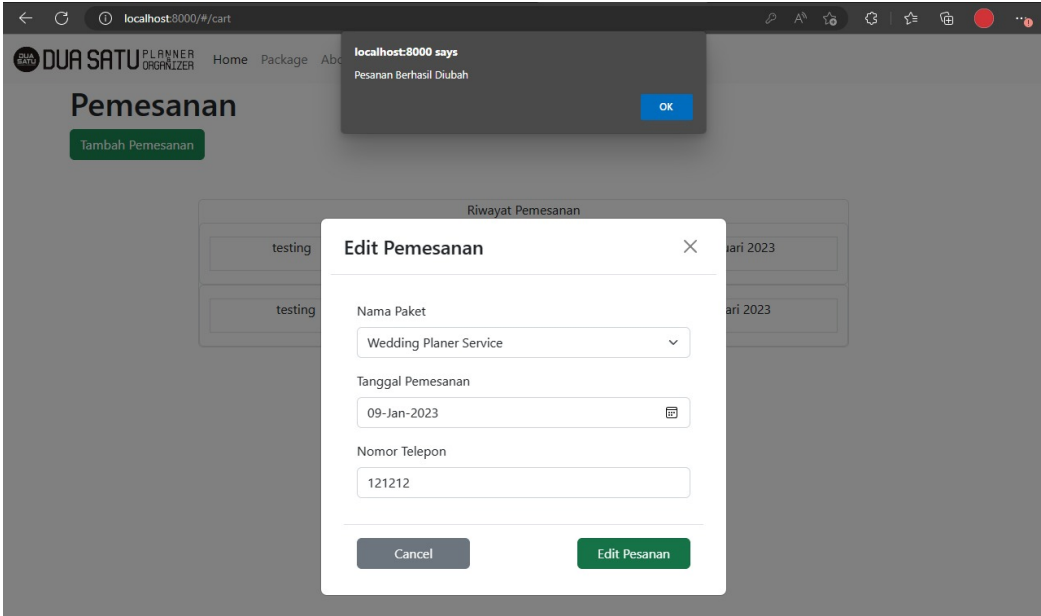


Figure 14. Editing Order Success

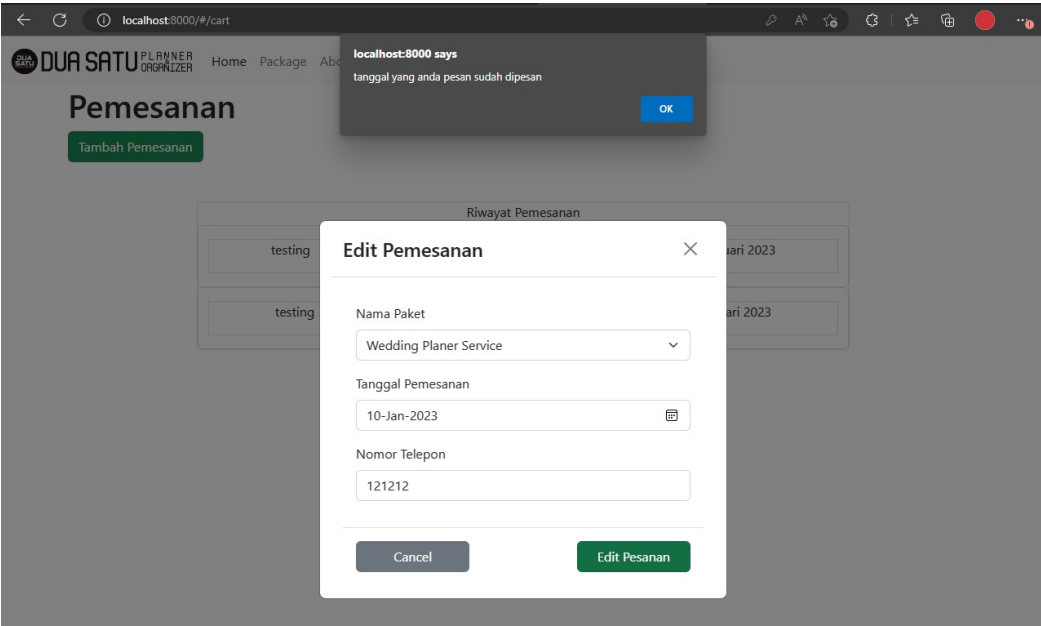


Figure 15. Editing Order Failed If User Change the Date with Existing Date in Other Order

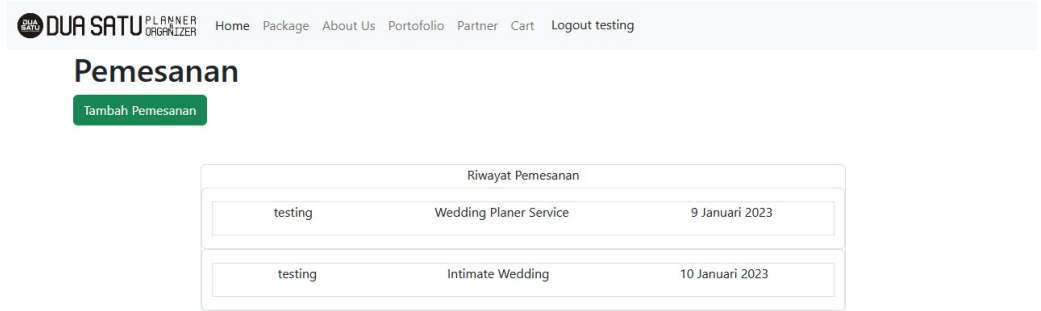


Figure 16. Order List

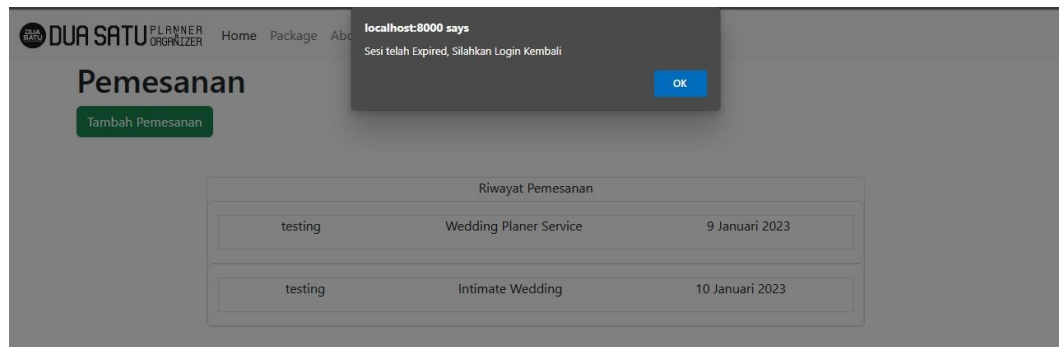


Figure 17. Validation Token Expired



Figure 18. Local Storage

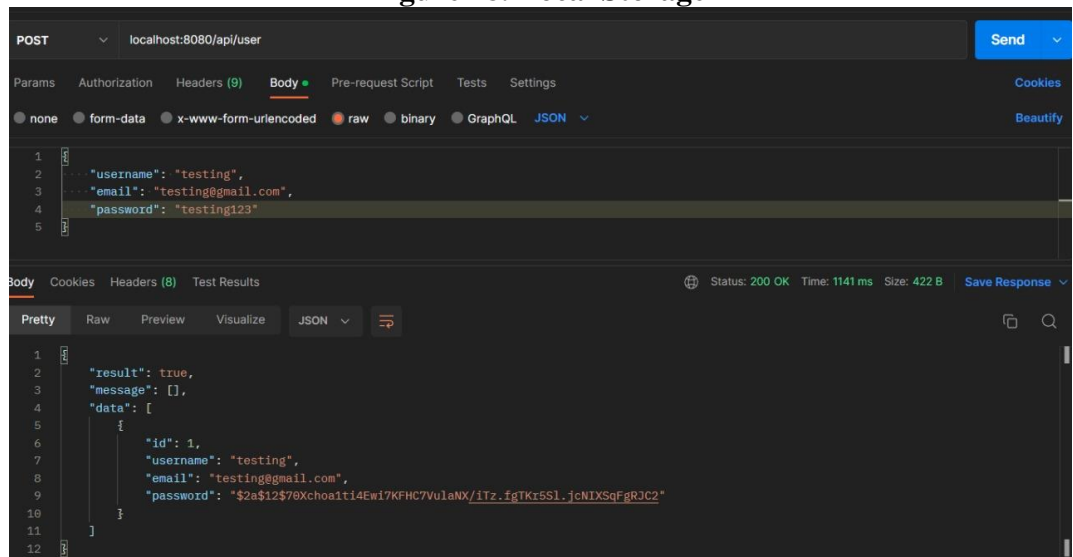


Figure 19. Inputted Password Has Been Encrypted with Bcrypt

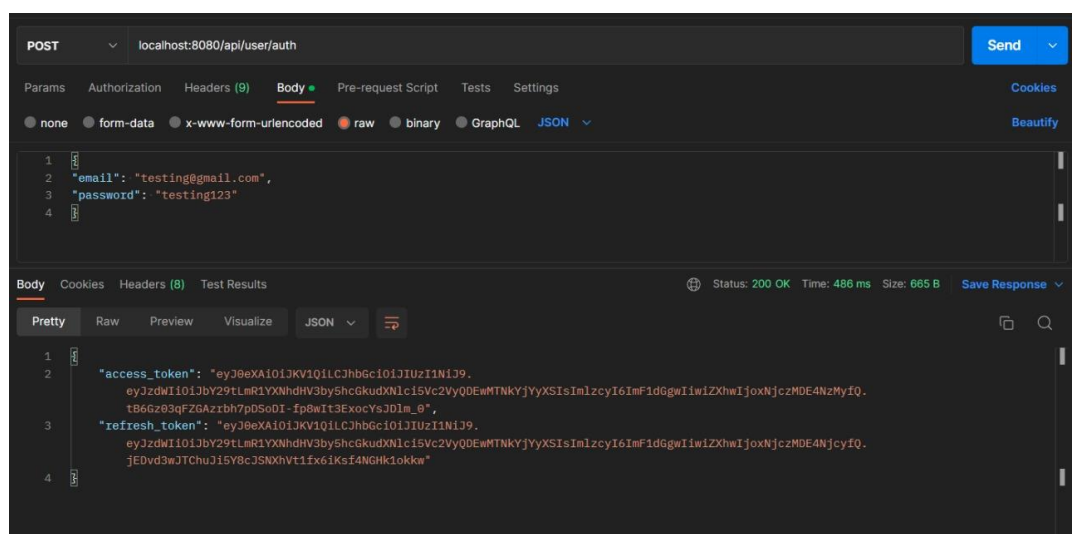


Figure 20. JSON Web Token Is Created When User Login

CONCLUSION

Based on the findings and discussion of the previous statement, the process of processing client knows about the wedding packages and placing order is quicker and more properly, so that by developing the website, the process of placing order is more direct. We can conclude that it will be efficient.

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