

# Website-Based Digital Wedding Invitation Generator Application

Adi Maulana Triadi<sup>1(✉)</sup>, Reyvan Adryan Rohmatulloh<sup>1</sup>, Arief Agus Sukmandhani<sup>1</sup>

<sup>1</sup> Computer Science Department, Binus Online Learning, Bina Nusantara University,  
Jakarta, Indonesia 11480

[adi.triadi@binus.ac.id](mailto:adi.triadi@binus.ac.id), [reyvan.rohmatulloh@binus.ac.id](mailto:reyvan.rohmatulloh@binus.ac.id), [arief.sukmandhani@binus.ac.id](mailto:arief.sukmandhani@binus.ac.id)

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## ABSTRACT

This research aims to answer the problems in making conventional digital invitations at Our invitation. Users can create digital invitations according to their own wishes and designs and can preview the appearance of the invitations instantly. And Admin can add new themes that Users can use. This application is made in the form of a website. The research starts from problem identification and literature study to application development using the waterfall method. The application has passed testing through the user acceptance test, and evaluation is carried out by distributing questionnaires to users with the conclusion that the application meets user needs.

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### Corresponding Author:

Arief Agus Sukmandhani

Computer Science Department, Binus Online Learning, Bina Nusantara University, Jakarta, Indonesia 11480

Email: [arief.sukmandhani@binus.ac.id](mailto:arief.sukmandhani@binus.ac.id)

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## 1. INTRODUCTION

The wedding invitation is a medium that has the intention of the recipient being able to attend the wedding. Most invitations are usually made from paper. Prices for invitations vary depending on the complexity of the design, the materials used, and the number of pages. However, there is an impression that it is redundant if you spend a budget that is too expensive for just one-time use invitations. Therefore we often find invitations that will end up in landfills because they cannot be used.

Wedding card printing services are increasingly popular in today's market. The online wedding card business is increasingly attracting many fans [1]. Not only that, in reducing waste of costs and also using paper and supported by increasingly advanced times, people are starting to switch to making invitations using digital invitations. Digital invitations have many advantages, including being more modern, relevant, and practical. In addition, digital invitations can be shared using social media such as Facebook, WhatsApp, or Twitter.

There are several types of digital invitations, some in the form of images, videos, and websites. So far, many companies have made digital invitations, one of which is a company called our invitation. Our invitation is a company that provides services in making website-based digital invitations. The process of making digital invitations carried out by our invitation starts with offering the product to prospective customers, when there are interested prospective customers, an interview stage will be carried out or describe the desire of the customer to make invitations with what kind of theme. After reaching an agreement with the customer wanting to make an invitation with an agreed theme, our invitation will make a design according to what has been described. In making this digital invitation design, the customer must wait first to see an overview of a template with the desired content. After the design is made, the customer must review whether it is difficult as desired or not, if it is appropriate, then the coding process will be carried out to turn the design into a website. This coding process makes the customer have to wait again because the developer needs to code the website's

appearance according to the customer's wishes with the available design templates. This is a drawback because customers have to wait to see a preview of the website form.

From the developer's side, there are drawbacks because they have to make the same code repeatedly when getting digital invitation orders from customers, and making the code will take time in the process. With the problems above, our invitation asks for the creation of a system that can provide available sample designs. And provide services for customers to be able to create invitations directly and preview them at once from the desired invitation. Besides that, it can lighten the developer's workload so there is no need to re-code. Therefore, it is necessary to make a generator application [2], create a web-based digital invitation template with the feature of choosing a theme and displaying a live preview according to the information provided by making the invitation and the existence of a process that can shorten and reduce the workload of the developer.

This website generator aims to allow customers to make their invitations directly, don't have to wait too long to make invitations, and can immediately see the results of templates with the desired content and lighten the developer's workload because a modular component structure has been created to prevent processes from occurring. coding repetition.

**2. LITERATUR REVIEW**

Similar scientific works used as a reference in making this website source generator are described in the table below

Table 1. Similar Scientific Works

Author	Author Journal	Conclusion
(Nugraha, 2020) [3]	Development of a Multimedia-Based Digital Wedding Invitation Application	This study discusses creating a multimedia-based digital wedding invitation application with a website form. Based on multimedia, this application uses the Multimedia Development Life Cycle method in its manufacture. The output of this application is a wedding invitation website with the PHP programming language using the Code Igniter framework
(Muzzani & Sallama, 2019) [4]	Designing a Digital Invitation-Making Application	This study discusses the design of the Digital Invitation Making Application using the PHP programming language with the CodeIgniter framework, like previous research. However, in designing this application, the website template used uses the AdminLTE template, and there is no preview for the design.
(Suparno, 2017) [5]	Android-Based Digital Invitations Using Xamarin and Visual Studio	This study explains the change in the invitation concept from paper to android-based using Xamarin and Visual Studio. The output of this research is a digital invitation application that can be opened on an Android-based smartphone. This digital invitation program can be used through visual studio or an emulator because it is still a prototype

This study uses the golang programming language to be able to create generator invitations [2]. Researchers chose this programming language because golang is a suitable programming language for making backend servers because it is known to be fast and has advantages in reliability, scalability, and simplicity [6].

**3. RESEARCH METHODOLOGY**

It is necessary to make a good plan through methodology to achieve structured research and achieve good results. This research uses a waterfall [7], and the following is the research methodology and an explanation of each process.

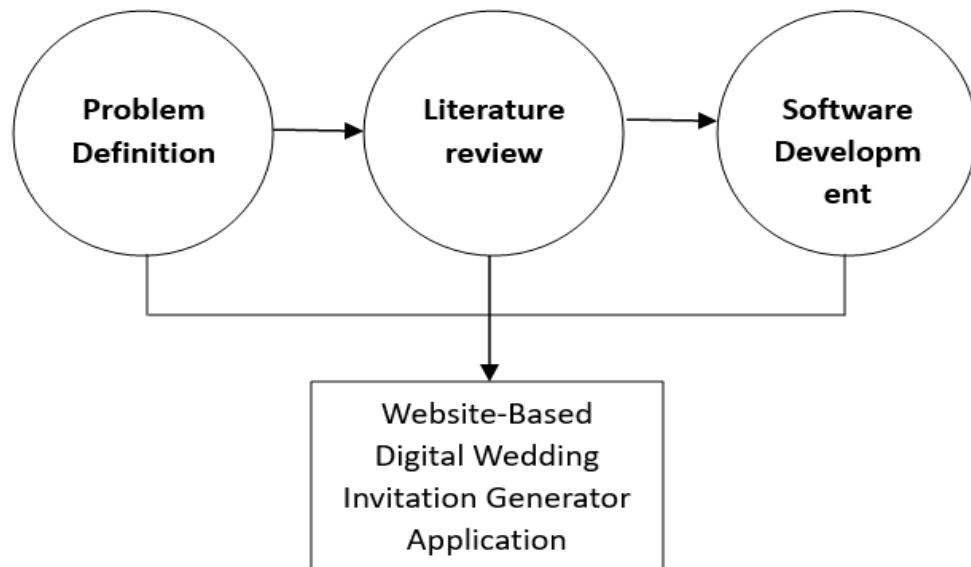


Figure 1. Framework of thinking

4. ANALYSIS AND RESULT

4.1. PROBLEM DEFINITION

The researcher identified the problem by distributing questionnaires and observing. The questionnaire aims to get validation of whether the problems and solutions offered are needed or not. There are 12 questions that are divided into five major sections, namely personal identity to validate the validity of the survey filler, opinions about the printed version of the wedding invitation, then needs to be related to the design features of the invitation design, preview of the invitation design, and confidence in designing the invitation completely by yourself. There are 42 respondents whose identities are valid, and the following are the answers to the questionnaire and an analysis of these answers. The results of the questionnaire and observations made by the author found several problems, namely that, on average, printed invitations were expensive (42.9%), printed invitations had a good design but were redundant because they were only used once, 90% of respondents answered that they were interested in using invitations. Digital, 63% of respondents answered that when offered digital invitations, they preferred to design with the designs that had been provided rather than designing their own designs from scratch, and 96% of respondents felt there was a need to be able to review designs directly. Based on identifying existing problems, researchers provide solutions to make it easier for users to create digital invitations.

Table 1. Proposed Problem Solving

No	Weaknesses The existing system is based on observation	Solution	System Requirements
1	Users cannot see the design directly according to the desired content	It provides a place to provide a template preview with the desired content	1. The system can provide a choice of templates to the user
2	Users are free to change the contents of each structure	Set limits on content that can be changed with the aim of not changing the shape of the design that has been made by the designer and still maintaining the integrity of the design itself	1. The system provides fields for each invitation structure that can only be edited without changing the structure and beauty of the design.
3	There are no restrictions on design modifications.		2. The system provides a preview when there is a change in the editor.
4	The fonts shown for modification are too many	Provides font restrictions according to the selected theme	3. The system can display suitable fonts according to the selected theme

4.2. DESIGN

In system design, researchers use UML [8][9] as the design of the application being developed.

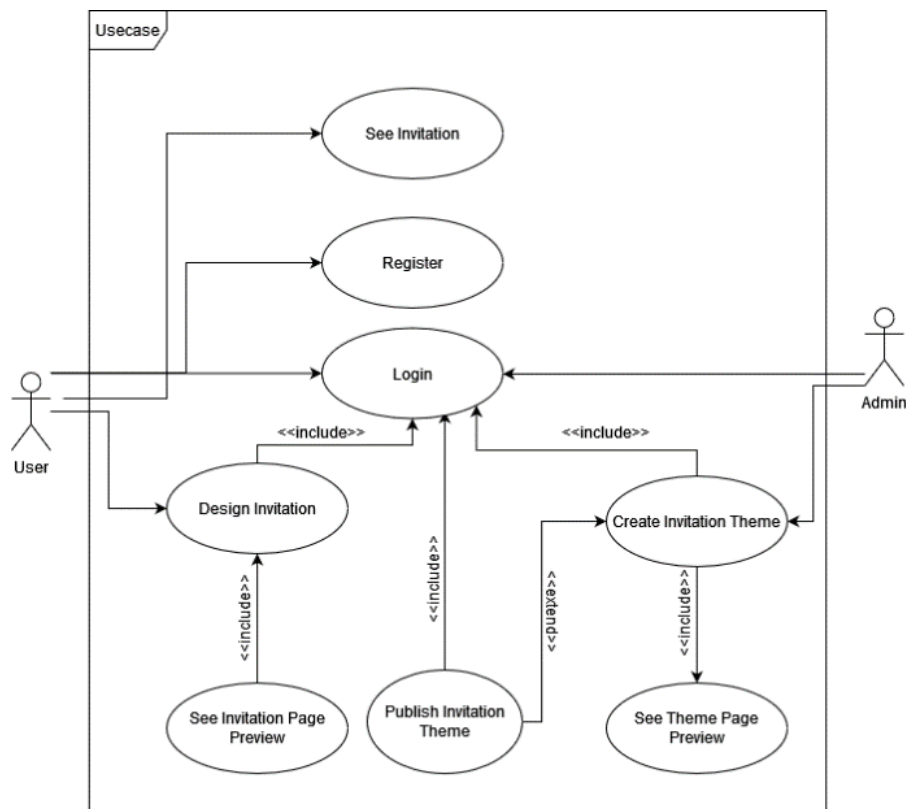


Figure 2. Use case Diagram

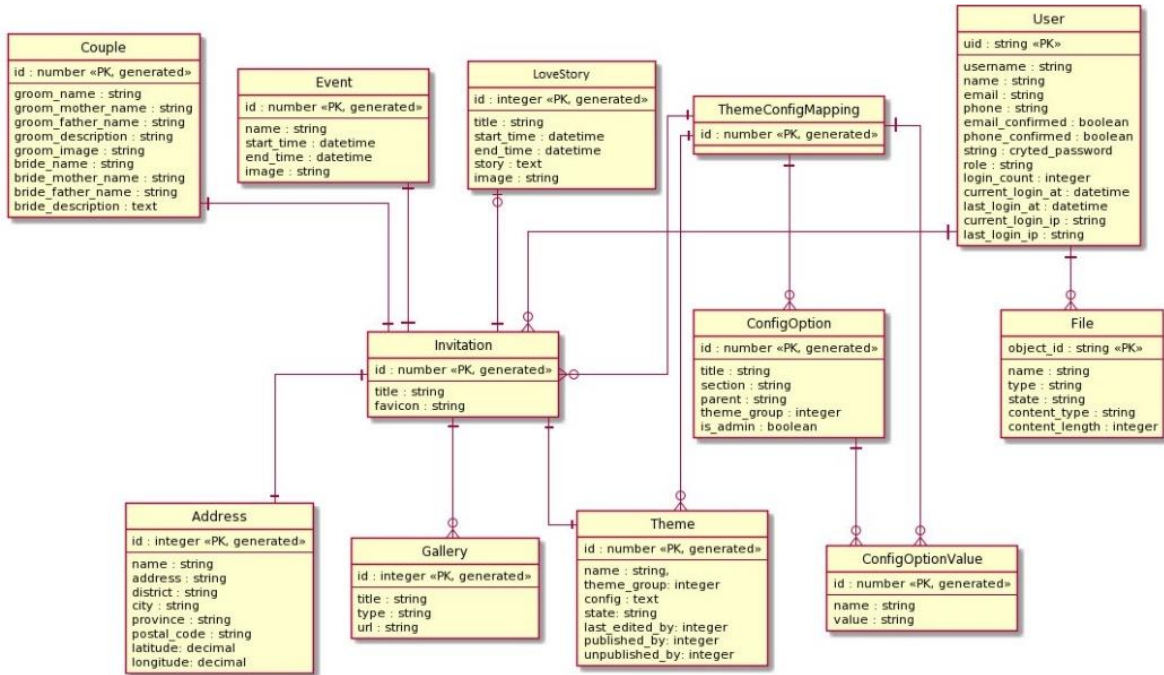


Figure 3. Entity Relationship Diagram

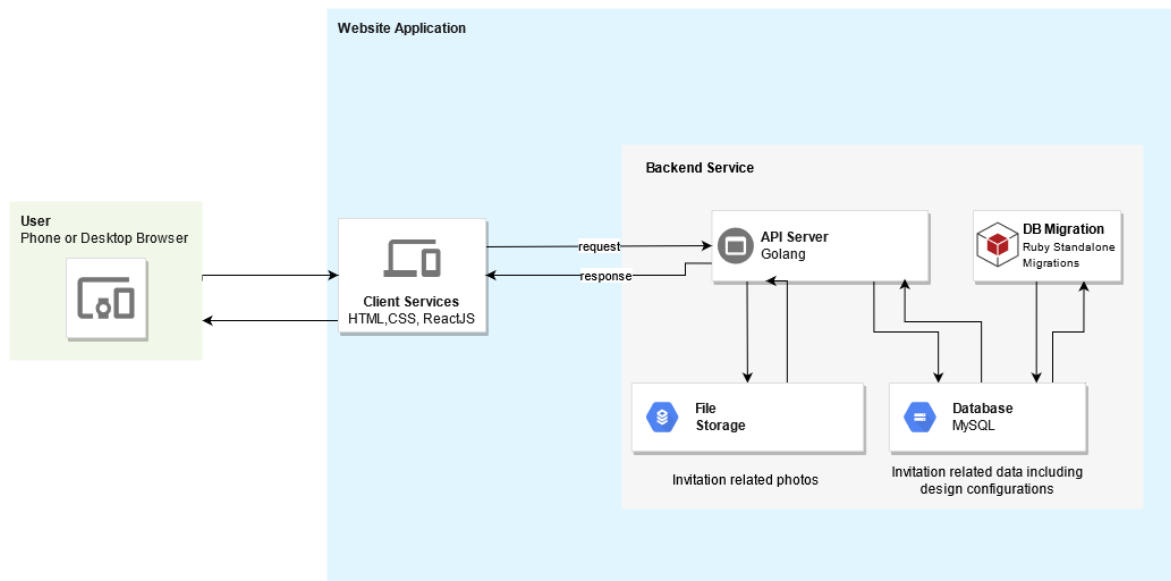


Figure 4. Arsitektur Diagram

The architectural design of the digital invitation generator application, where the architectural structure used is a client-server [10]. Where the client is in the form of a website display that will communicate directly with the user. The client here is also responsible for mapping the configuration obtained from the server to display the digital invitation website. The client is built with HTML, CSS, [11] and the ReactJS framework [12]. The backend service or server manages every process and data flow and ensures the application's security. The server will manage any digital invitation data, whether it's ordinary content such as partner data, event information, galleries, or design configurations selected by the user.

### 4.3. SOFTWARE DEVELOPMENT

Implementation of the program by translating each design plan that has been made into program code which is then integrated to become an application [13]. The following shows the user interface that has been developed.

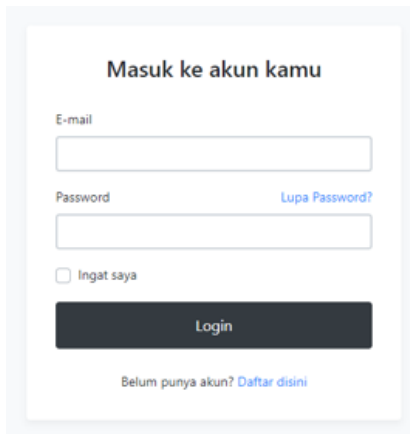


Figure 5. Login Page

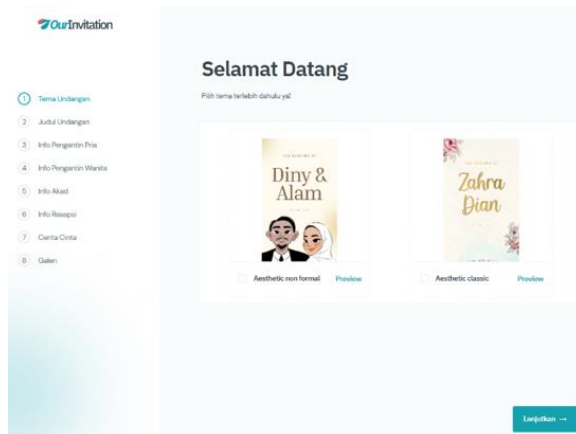


Figure 6. Onboarding Page Select a Theme

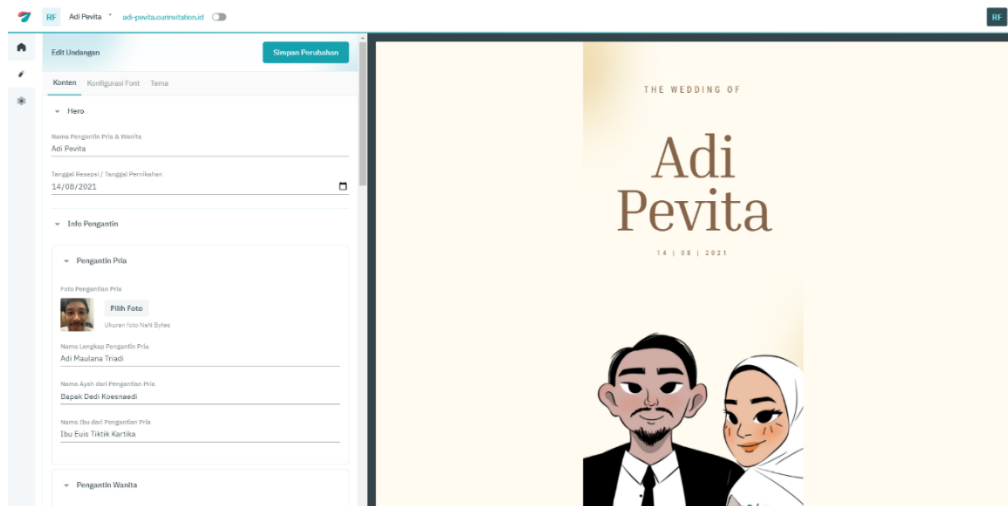


Figure 7. Invitation Editor page

Every time the user finishes making changes to the information content, the user must select or press the Save Changes button to apply the information changes to the invitation display.

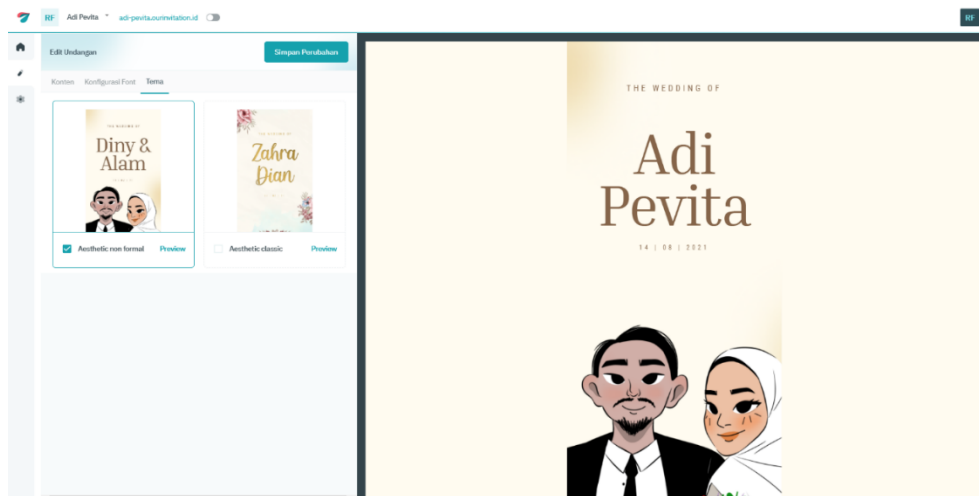


Figure 8. Theme Configuration Page

Every time the user finishes making changes to the information content, the user must select or press the Save Changes button to apply the information changes to the invitation display.

#### 4.4. IMPLEMENTATION

After the implementation of the application is applied to the company, the next step is to test and evaluate the system to find out whether the designed system is running well and is in accordance with the expected goals. System testing and evaluation are carried out using the Blackbox testing method [14].

Table 2. Result of Blackbox Testing

Test Scenario	Test Case ID	Test Case	Expected Result	Result
Registration	TEST-C-01	Registration Page	Displays a new account registration form with the form Name, Email, Password, Password Confirmation, and agreement to the Terms and Conditions.	Passed
	TEST-C-02	Invalid email notification during registration	Displays a notification "Your email is not valid" on the registration page.	Passed
	TEST-C-03	Notification of obligation to fill out all forms.	Displays a notification if there is a form that is not filled out	Passed
	TEST-C-04	Notification of registered account registration.	Displays a notification if the account is already registered	Passed
	TEST-C-05	Registration Successful	Redirect to login page if registration is successful	Passed
Login	TEST-C-05	Login Page	displays a login page with an email form, password, login button, and a link for new user registration.	Passed
	TEST-C-06	Login failed notification due to wrong email or password	Displays a notification message "The email or password you entered is incorrect. Please try again." Login page.	Passed

#### 5. CONCLUSION

The application can store information data regarding invitations and display and apply content to the selected theme so that it can provide a preview of the design of the invitation directly with the results of supporting implementations, such as saving configs that are directly applied to the selected theme, displaying an overview of the results of the theme whose content is changed, choosing a font configuration according to the chosen theme, choosing the desired theme and a coding structure that is dynamic and can be customized quickly using Atomic's design structure. Based on the evaluation of the users of this system, it can accommodate invitations that are a problem experienced by consumers. Suggestions for further development can be integrated into third part applications such as WhatsApp, Telegram, or email so that the distribution of invitations becomes easier.

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