

# 7. 298-Rumaisha

*By Oktavia Oktavia*

## Website Based Guestbook Design (Study At One of The Schools in Bandung)

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### Abstract

*The research findings can be summarized as follows: Implementing this service information system facilitates the management of workshops for their managers, decreasing errors compared to the prior system. Including a booking service function allows consumers to expedite and streamline the service process, eliminating the need for an initial visit. Moreover, the system can provide more precise data due to storing each process in the database.*

*Recommendations for enhancing the efficiency of the service information system include: Providing details about the daily service schedule is essential for the secretary to handle service appointments effectively. In addition, engaging employees in reporting their job outcomes enables the secretary to effectively oversee and provide vital monitoring data for the workshop owner.*

**Keywords :** *Guestbook Application, Fluency, Reception, Elementary School, User Interface, Database Structure*

### INTRODUCTION

The school requires a guest registry to document the identities of individuals who visit during particular periods. Every educational institution must own a visitor registry to accommodate external guests. Hence, including a guest book is imperative to document and preserve information about guests systematically. Guest books are available for purchase at stationery stores or similar retail establishments. Nevertheless, in the present era, anybody possessing a laptop or computer can fabricate one independently. (Riyadi & Astutik, 2022)

A guest book documents visitor information, including the names of individuals who have visited a location, such as government establishments, educational institutions, or particular occasions. (Falih et al., 2021; Rostilawati et al., 2022) The guest book process can be an additional means for carrying out administrative responsibilities in a school institution. (Mirza & Yoga Maulana, 2024)

### Systems and Information

Design is a crucial step in constructing a system. It occurs after the stages of system analysis and the system development cycle. This stage encompasses the determination of the functional prerequisites and the elucidation of the system that is to be constructed. (Ahmia & Belbachir, 2018; Fikri & Arthawan Sugih Prabowo, 2021)

An application, a type of computer software, leverages the inherent capabilities of a computer to perform specific tasks as requested by the user. This user-centric nature sets it apart from system software, which integrates different computer functionalities without directly addressing user needs. (Aenul Hayat & Sofiansyah Fadli, 2023; Hendriani & Indrawan, 2021)

Numerous concerns occur when completing or documenting guest book entries, including the restricted availability of guest books provided by staff or receptionists at an institution. In addition, the manual procedure of completing the guest

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book often results in tourists experiencing delays, and mistakes are often made in tallying the number of visitors. (Alfanugrah A. Hi Usman et al., 2022; Yulisman et al., 2022)

Meanwhile, there have been rapid technology breakthroughs that are always growing to simplify daily living and optimize the efficiency, time, and expenses involved in completing chores. An example of this progression is the substitution of manual chores with digital ones, such as shifting from writing in a guest book to utilizing an application linked to a laptop. The advantages of digital applications are clear, offering potential benefits that could revolutionize the way we handle guest book entries.

A visitor book application is a technological alternative that can supplant the traditional guest book at a school in Bandung. Traditional guest books can be challenging to retrieve and gather information effectively. Additionally, they are susceptible to data loss or damage, which can impede school administration. Registering and monitoring guests at the school can be streamlined, expedited, and better coordinated by using a guest book application.

The research problem formulation is creating an efficient web-based guest book for a school in Bandung that can aid administrative staff in their duties as receptionists. This method is anticipated to mitigate the danger of issues and optimize the utilization of students' existing capabilities.

## METHOD

### Research methods

Research methods refer to the systematic procedures researchers employ to gather information or data and analyze the collected data. This study utilizes the Descriptive Method to collect the required information sources. The descriptive approach can be classified into three distinct types: the observational method, the case study method, and the survey method.

### System Development Methods

In order to attain favorable outcomes in this research, the author employs the OOAD (Object-Oriented Analysis and Design) methodology for system design. Object-oriented analysis and design (OOAD) is a methodology that analyzes requirements by considering the classes and objects in the problem domain. It helps in designing the software architecture by manipulating the objects of the system or subsystem.

OOAD, an acronym for Object-Oriented Analysis and Design, has a rich history that dates back to the 1960s with the SIMULA language and was further advanced in the 1970s with Smalltalk. The pioneering work of Grady Booch and Jim Rumbaugh led to the development of a novel methodology that combines and incorporates existing approaches, making it accessible to a wide range of users. In approximately 1995, Ivar Jacobson, the creator of OOSE and the Objectory Method, made substantial contributions to this particular domain, further enriching the OOAD methodology.

OOAD, or Object-Oriented Analysis and Design, introduces a novel approach to problem-solving by employing models that are grounded in real-world principles. The fundamental

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principle of this system development methodology is the object, which integrates data structures and behavior into a unified entity.

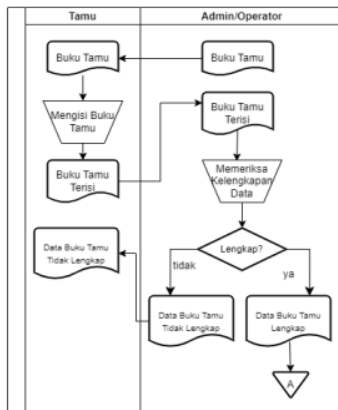
OOAD is a comprehensive approach to system examination and creation, employing an object-oriented methodology, specifically Object-Oriented Analysis (OOA) and Object-Oriented Design (OOD). Object-Oriented Analysis (OOA) is a systematic approach to evaluating the requirements of a system, focusing on the classes and objects within the organizational context. On the other hand, Object-Oriented Design (OOD) is an approach that guides the development of software architecture by manipulating objects inside a system or subsystem, thereby playing a crucial role in the software development process.

**RESULTS AND DISCUSSION**

**System Analysis and Design**

a) Process Analysis

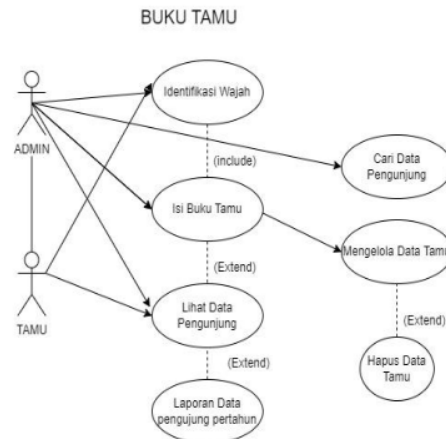
The following is the flow of the guestbook process



b) Proposed New System

Evaluating an established system is vital in assessing its alignment with its core purpose, which is to streamline user operations. System analysis is crucial as it aims to comprehend the system's functioning, ensuring that the designed system can effectively generate the expected outcomes and accomplish the planned objectives. The present system is as follows:

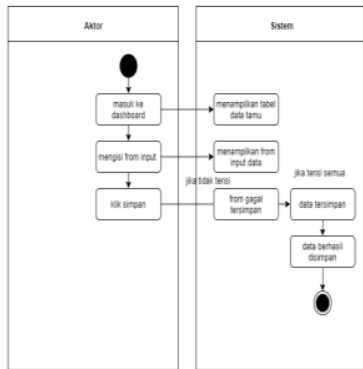
i. Use case diagrams



ii. Scenario Table

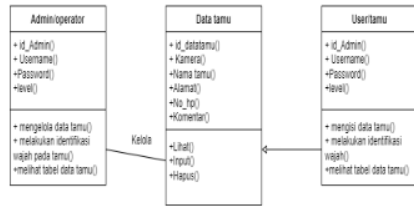
Nama User Case	Mengisi Data Tamu
Aktor	Admin
Deskripsi	Admin Mengisi dan memperbaharui Data Tamu.
PreCondition	Menampilkan Dashboard
PostCondition	Dapat menambahkan data tamu
Main Flow of Event	
1. Admin berada di halaman Dashboard admin	2. Menampilkan tabel data tamu
4. Mengisi form input	3. Menampilkan form input data
5. menekan tombol simpan	6. Validasi data a. Jika form kosong, maka sistem tidak akan tersimpan b. Jika form terisi semua, maka data tersimpan ke dalam database dan menampilkan pesan bahwa data berhasil disimpan, dan menampilkan tabel data tamu

iii. Activity diagrams



c) System Design

Database Design



Field	Type	Primary
Id_tamu	int(10)	*
Time	varchar(50)	
Nama	varchar(50)	
Alamat	varchar(150)	
Hp	varchar(20)	
Pesan	Text	
Image	varchar(50)	

Interface Design



System Implementation

The system implementation stage involves the detailed description and preparation of an application system to ensure its readiness for operation.

Home Page/Dashboard Display



Guest Data Page Display



Report Page View



CONCLUSION

The research findings indicate that the guest book application website at a school in Bandung has been successfully designed to meet the school's specific requirements. This includes the digital recording of guest data through the website,

replacing the traditional manual method. The information system for this guest book application has been created as a website that the operator of the school can access operator. This website streamlines guest reception by utilizing a camera function to identify guests accurately, serve as tangible evidence of their presence at the school, and establish a foundation for documenting guest activities within the school premises. The system is equipped with mobile-responsive capabilities, allowing it to automatically adapt its display to fit the screen size when accessed on a smartphone. Future researchers should improve data entry procedures to minimize errors and complete thorough data collection to develop a more efficient system. To enhance application design, it is advisable to get a profound comprehension of PHP, HTML, and database systems, particularly MySQL.

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