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## **Analysis of Front Office Management Information System at RYD Family Hotel Cikoneng**

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### **Abstract**

Collecting hotel front office administrative data requires appropriate mechanisms and organizational arrangements so that the data can be packaged and maintained properly. As one of the modern hotels in Ciamis city center, RYD Family Hotel is a hotel that is currently under development. Currently, the RYD Family room rental system is still less effective in terms of reservation retention, delays in finding empty rooms, frequent delays in reporting, and the length of time to calculate check-out fees. Therefore, to be more effective, the author aims to create an efficient and effective front office information system. Therefore, the benefits obtained through this computerized system are expected to provide convenience in processing front office check-in and check-out customer data, ease in storing customer data, viewing customer data reports, income reports, daily, monthly and period reports. Using research methods, the author analyzes existing data sources to create a system, designs input and output based on this analysis, and creates tables and program code to become the desired system.

**Keywords:** Management information system, front office, RYD Family Hotel

### **Introduction**

Current developments in information technology provide great convenience for all levels of society to obtain, process and disseminate information efficiently. The hotel industry is one of the industries that has been greatly impacted by this development. Management information systems (MIS) are now an important component in hotel operations, both large and small. In this digital era, many hotels have shifted from manual systems to more efficient and automated systems. This not only applies to large hotels, but also hotels that are developing, such as the RYD Family Hotel. The RYD Family Hotel, which is located in the center of Ciamis city, is one of the hotels that is still under development. Even though it has a strategic location and a fairly high number of visitors, this hotel faces challenges that are common to many small and medium hotels, namely a managerial system that still relies on manual record keeping. This manual system, even though it has been used for years, often causes errors in data

collection, delays in searching for available room data, and difficulties in preparing timely financial and operational reports. The difficulties that arise due to the use of this manual system not only affect operational efficiency, but also have the potential to reduce service quality and harm the hotel in terms of time, energy and other resources. Hotels that still rely on manual recording often have difficulty managing customer and transaction data quickly and accurately, especially in the face of ever-increasing guest volumes. Therefore, the implementation of a computerized management information system is very important to improve existing system processes, increase efficiency, and support better decision making in hotel management. With this background, this research aims to design and improve a front office management data system that can overcome the problems faced by the RYD Family Hotel, with the hope of improving the hotel's operational performance and making it easier for staff to manage guest data, record reservations, and make reports more quickly and accurately.

Therefore, the author hopes to help overcome these problems by creating and designing a management information system at the RYD Family Hotel. This system can handle guest entry, check-in, check-out, reservations, payments. The author hopes that this system can solve existing problems. The problem that is often faced before using the system is in collecting data on incoming guests. With this system, it is hoped that it can make it easier for the front office to collect guest data such as recording reservations, check-in and check-out (Sutarsa Monika, 2023b). Apart from guest data collection, another problem is the delay in recording financial reports which hinders the preparation of financial reports, the author also hopes that the creation of a system can make it easier to record financial report data. The benefits of this research are being able to formulate problems and identify the need for a hotel Front Office information system to provide and improve service to guests to make it even better (service excellence), knowing more accurate information regarding guest data, room data, room booking data, guest payment data, equipment data and fixed assets in the hotel, being able to compete in the era of globalization and generate greater profits. (Christian et al., 2013)

## **Literature Review**

Science and technology are currently facing rapid growth. One of the developments in technology that is widely used is the computer, which has become a term that is familiar to people because almost all aspects of people's lives have used this technology, starting from business life, offices, hotel learning, and other fields that are heavily related to information. Today's rapid advances in science and technology have a significant impact on everyone's lives. Currently, advances in science and technology affect every aspect and phase of a person's life (Sutarsa Monika, 2023a). Due to natural human drives and creative instincts, science and technology are not simple (Habibah, 2017). Based on this statement, rapid progress in science and technology is expanding into the tourism business. The tourism zone is experiencing very rapid progress and has good prospects for the future. This matter cannot be separated from the name of technological growth which is able to design a system so that the tourism sector experiences a fairly good increase. One of the main business supports in the tourism sector is the hotel business which provides facilities and infrastructure. With good management and management, the hotel business will be able to support the tourism business world as a

mainstay. Currently, the tourism sector has demonstrated strong development, as evidenced by the large number of entrepreneurs who are involved in this business, so it seems as if competition is something that cannot be avoided. Each party strives to improve services and better quality and facilities provided. Along with the times, demands for better quality services have also led to system changes being attempted, one example of which is changing a manual system to a computerized system (Oktaviani & Sutarsa, 2024). To improve the quality of service in a hotel, it can be done in various ways, especially by departments that directly deal with guests. The front office is the department located at the front of the hotel and is the first place guests will go. Almost all activities in the front office are directly related to guests, starting from before the guest arrives, upon arrival, while the guest is staying at the hotel, until when the guest leaves the hotel. "Front Office is the department that handles guests who will use the room, starting from reservations, welcoming (Receptionist), guests arriving (Check In) until guests leave the hotel (Check Out)." Thus, basically the main task of the Front Office Department is to serve administrative needs and guest information starting from reservations, check-in to check-out. (Zahirah, 2024). Hotel Management Information System Design is a management information system that can support hotel performance. Therefore, the implementation of a hotel management information system is necessary to achieve the expected results. Hospitality Asset Management Information Asset Management Information Systems.

### **Information Systems**

Information systems are formal systems to support decision making, increase operational efficiency, and share accurate and relevant data for users. With the existence of a Data System, an organization can use data technology to process information efficiently, increase collaboration between departments, and respond immediately to transformations in the business area. Information systems are also the most important element in achieving organizational goals, including hardware, software, procedures, people and data that work together. (Arief Yahya Prasetyo et al., 2024). Information systems have a very important role in supporting management in obtaining all accurate, fast information to make it easier for management to make strategic decisions. With an information system, the company will increase its productivity, efficiency, make it easier for management to plan and make it easier to manage company transactions. (Warjiyono et al., 2020). An information system is a system within an organization that meets daily transaction processing needs, supports operations, managerial and strategic activities of an organization and provides certain external parties with the necessary reports (Sutarsa, 2024). In the book Principles of Management Information Systems, the definition of an information system is a system created by analysts and managers to carry out certain specific tasks that are very essential for the functioning of the organization. (Panjaitan & Putriana, 2021)

### **Database System**

A database system is a system for compiling and managing records using a computer to store or record and maintain complete operational data of an organization or company so that it is able to provide optimal information that users need for the decision-making process (Mustika, 2024). Meanwhile, according to (Mardiono et al., 2019), a database system is a computerized system that aims to store a number of data, making it easier for users to obtain

and update information according to their needs. Information stored in a database can be in the form of text or numbers.

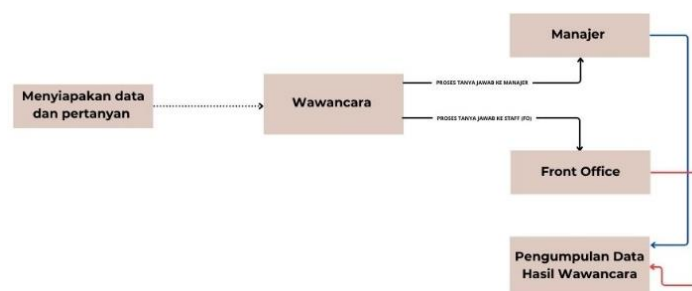
### Information Quality

Information quality is how information is presented completely and clearly and can educate users. Information quality is a benchmark for consumers in fulfilling the requirements and expectations of people who need information to make decisions. (Amarin & Wijaksana, 2021). Another opinion says according to (Agustina, 2017). Information quality has attributes such as information obtained from a system, accuracy of information, relevance of information, timeliness, and completeness of information. Information Quality is often a key dimension regarding end user satisfaction instruments. According to (Jeanne Clarisa Wetik, 2017) The value of perfect information is for the decision maker to choose the optimal decision in every case and not the decision that on average will be optimal and to avoid events that will result in a loss. Information will have meaning when the information has the following elements:

1. Relevant means that the desired information is truly relevant to the problem being faced.
2. Clarity means being free from confusing terms.
3. Accuracy means that the information to be presented must be accurate and complete.
4. Timely means that the data presented is the latest and most up-to-date data.

### Research Method

The data collection method used is qualitative. According to (Ihsannudin et al., 2022) Qualitative research is research aimed at understanding social events from the perspective of participants, namely those who are asked to interview, observe, ask for data, opinions and perspectives. Another view says (Fauzi et al., 2024) Relevant data sources are obtained through several literature data collections from selected sources. At this stage, researchers conducted a search and selection of literature that provided insight and in-depth understanding regarding the use of Big Data technology in business data analysis and decision making. This research is aimed at describing the application of the information system at the RYD Family Hotel by means of interviews and observations. Interviews are a data collection technique to obtain the required data by means of direct questions and answers with the Front Office and the RYD Family Hotel Manager and direct observation from the field to see the existing situation and circumstances. The following are several stages of direct interviews and collecting additional facts in the field.



**Picture 1 Data Collection Flow**

Researchers obtained facts on the spot by conducting direct interview sessions and asking several questions to the hotel manager and front office staff at the RYD Family Hotel.

**Table 1** Respondent

| No | Nama Respondent         | Jabatan            |
|----|-------------------------|--------------------|
| 1  | Mochamad Kevin Julianto | Manajer Hotel      |
| 2  | Rima Oktaviani          | Front Office Hotel |

This interview was conducted using a structured method in order to dig deeper into the information. The main respondents in this interview were Mochamad Kevin Julianto (Hotel Manager) and Rima Oktaviani (Hotel Front Office). The questions asked included, The system currently used to manage check-in and check-out data. Obstacles faced in the recording and reporting process. Solutions that have been made to overcome these problems. Expectations related to the implementation of a more efficient system. Observations were conducted directly at the RYD Family Hotel to understand the actual conditions of data management and workflow in the front office. Several aspects observed, How to manually record guest data using a ledger. Guest check-in and check-out process. Preparation of hotel financial reports and potential recording errors. Interaction between the front office and the hotel management system. Data from this interview were recorded, classified, and analyzed using thematic analysis techniques to identify patterns and key problems. The results of the observations were compared with the interview findings to obtain a more accurate picture. The analyzed data was used to design an information system that could address the identified problems.

## **Result and Discussion**

### **Planning Analysis**

From research conducted at the RYD Family Hotel, several analyzes were obtained as follows:

#### **Problem Context Analysis**

Questions were asked to the Front Office at the RYD Family Cikoneng Hotel with the following questions:

1. Currently, what system is used at this hotel to manage check-in and check-out data and create income reports?
2. What problems do you face while managing check-in and check-out data and creating income reports using this system?
3. Given this problem, what solutions have been implemented so far?
4. What do you hope to achieve in the future to be able to resolve problems that occur in managing check-in and check-out data as well as generating income reports?

After conducting an analysis in the form of interviews with the front office and staff at the RYD Family hotel, several answers can be concluded:

### **The system used at RYD Family Hotel**

For the time being, the system used in the process of collecting data on check-in and check-out guests uses a manual ledger system, it does not rule out the possibility of using computer tools as a means to manage check-in and check-out data and create income reports in the future. Currently, recording guests checking in and checking out is still done manually using a ledger. This method has been used for a long time, but there are several obstacles, such as the difficulty of finding guest data, the risk of losing records, and the possibility of errors in recording. In the future, it is possible that this system will switch to computers so that the data collection process is faster and more accurate. With a computer system, all data can be stored more neatly, easily searched, and can be used to create income reports more practically and efficiently.

### **Problems faced by RYD Family hotels**

The problem that is often faced in managing check-in and check-out data is that there are many guests checking in and checking out at the same time, which disrupts the process of data collection and recording guest data. Mistakes often occur in recording financial reports, such as in nominal terms, which result in differences in calculating hotel financial reports. One of the problems that often occurs in managing check-in and check-out data is the large number of guests arriving and leaving at the same time. This often causes the data collection process to be slow and less effective, and even risks errors in recording guest data. Apart from that, errors in recording financial reports also often occur, especially in recording nominal payments. Small errors like this can cause discrepancies in the hotel's financial reports, which in turn can affect the accuracy of revenue calculations. If not addressed immediately, this problem can impact the operational efficiency and overall financial management of the hotel.

### **Solutions to the problems faced**

So far, we are still using the writing method in the form of books or manuals because there has been no direction from the leadership regarding system updates. The solution that must be met is for the leadership to update the previous system to a new system. Currently, the writing method is still done manually in book form because there is no direction from the leadership to update the system. The solution that needs to be done is that the leadership must update the old system to a newer system.

### **The author's hopes for the future**

With the problems mentioned above. We hope that the leadership needs to change the hotel management method that is currently used, namely recording which still uses books, to a computerized hotel management method, namely the need for a front office information system that can help with the check-in and check-out data collection process, as well as making reports at the same time. In order to ease the work, if it is not updated, it will happen again and again, as is happening now. Seeing the existing problems, the author hopes that leaders can change hotel management methods which currently still use manual recording to a more modern and computerized system. With a front office information system, the process of recording check-

in and check-out, as well as preparing reports can be done more easily and efficiently. This will lighten the workload of employees and prevent recurring problems like what is happening now.

### Analysis of Systems Used Currently

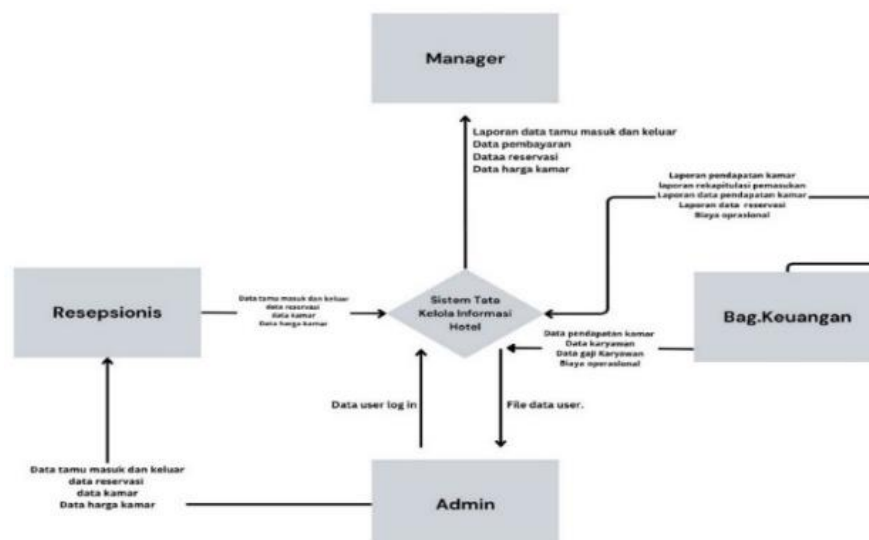
The transaction data management system at RYD Family Hotel still uses manual ledgers in the form of monthly financial data report books.

### System Design

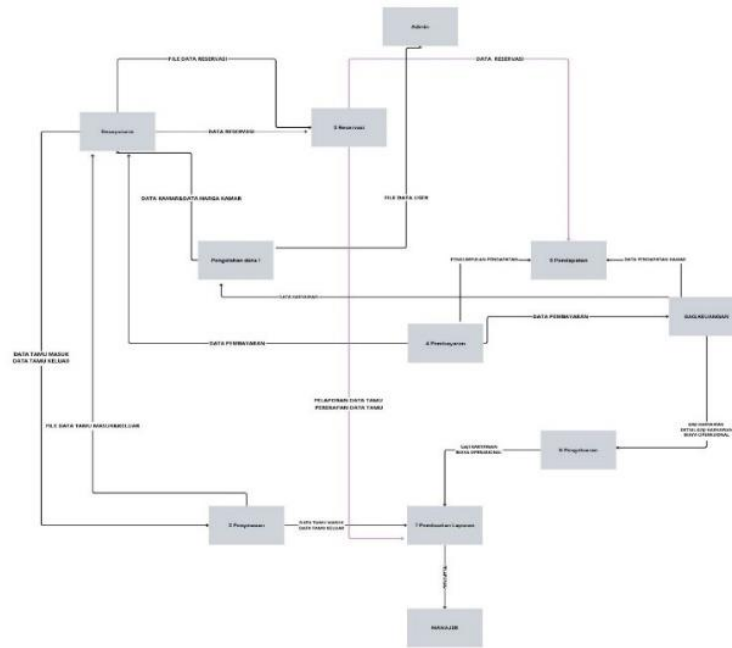
System design is the first step in system design after the system requirements are known. Designing a management information system for RYD Family hotels is the first step before creating a program. When designing and developing these information systems, there is a flow of information and data conversion for input and output. The implementation of information flow and data transformation is explained in the form of a structured data flow diagram called a data flow diagram. A structured and clear data flow diagram is what we call a data flow diagram.

### Data Flow Diagram

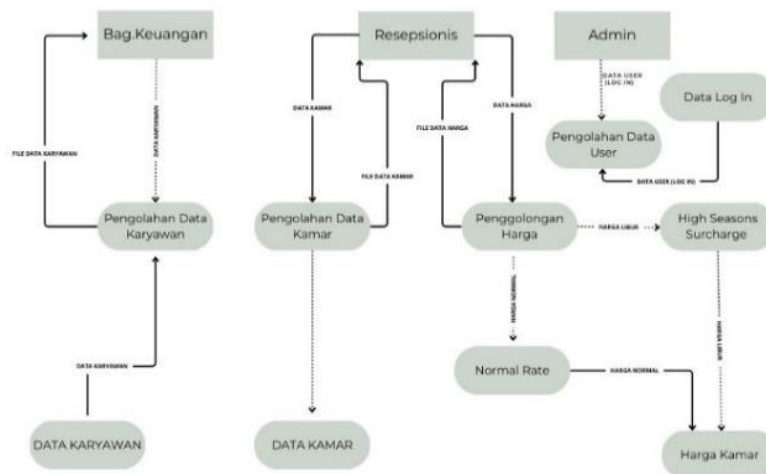
Data Flow Diagrams (DFD), commonly known as data flow diagrams, are tools used to document processes in a system, how to use stored information and transfer information between functions in a system. Data Flow Diagram (DFD) development is a system model that describes the flow of data through a series of processes to visualize functional data transformation. DFD serves as an effective communication tool between developers and stakeholders, simplifying complex information for system analysis and understanding. With notations such as Gane and Sarson, DFD facilitates problem identification and improvement in system design, especially for complex projects. (Hasan et al., 2025).



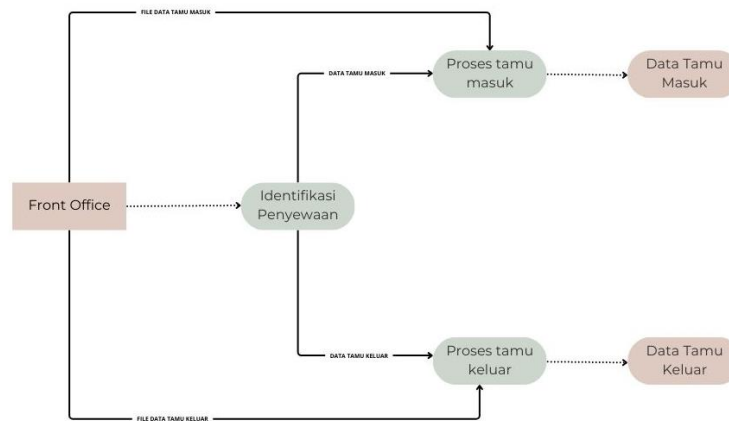
**Picture 2** Data Context Diagram



**Picture 3** Data Context Diagram Level 1

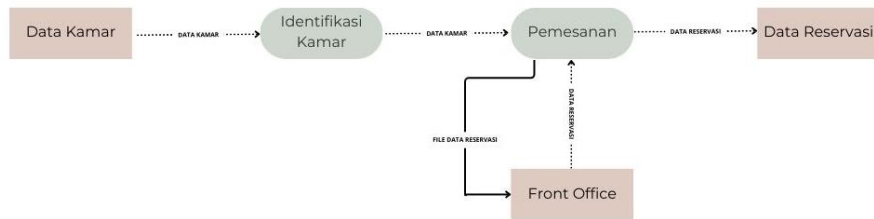


**Picture 4** Data Context Diagram Level 2 Process 1



**Picture 5** Data Context Diagram Level 2 Process 2

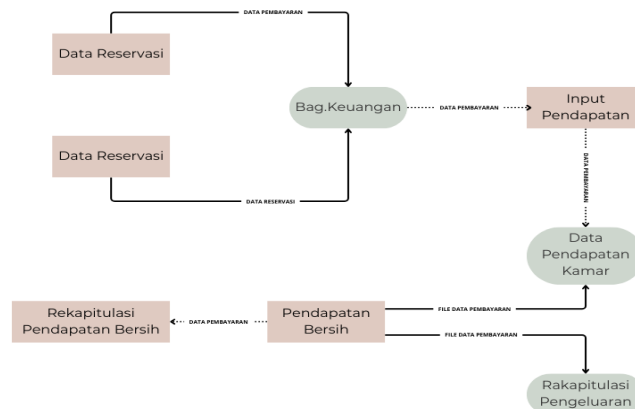




**Picture 6** Data Context Diagram Level 2 Process 3



**Picture 7** Data Context Diagram Level 2 Process 4



**Picture 8** Data Context Diagram Level 2 Proc

Next, as shown in Figures 9 and 10, the results of the implementation of the information system program are displayed in an interface format. Check-in is used to enter all guest data that each guest has a guest ID as its primary key. Guests who check-in are recorded in the transaction form and can be searched later by the guest in the form of an ID in the check-in transaction. With the diagram form space, order or reservation data for this RYD Family hotel room is displayed directly or through the application.

The image shows a web-based 'Form Check In' interface. It is divided into four main sections: 'Booking Details', 'Guest Details', 'Room Details', and 'Notes'.  
 - **Booking Details:** Includes fields for Booking Type (Normal Booking), RD Location (House Of Manira Syai), Room Type (Standard Room), Booking Date (08/02/2023), Total Room(s) (1), Check In Date, Check Out Date, Add Breakfast (per night) checkbox, Booking Price, and Cash to be collected.  
 - **Guest Details:** Includes fields for Email, Title (Mr.), First Name, Last Name, Citizen (Indonesia), Date of Birth, City (Aek Habil), Mobile No. (+62), Type of ID (Local Id), and ID No.  
 - **Room Details:** Includes Booked Room Type (Standard Room) and Stayed Room Details.  
 - **Notes:** A large text area for additional information.  
 A 'Help Center' button is located at the bottom right of the form.

**Picture 9** Form Check In

| 0   | 0  | 0  | 0               | 0   |
|---|--|--|-----------------|---|
| 1/8   | 2/8  | 7/8  | 4/8             | 1/8   |
| Wed, 05/02/2025   | Thu, 06/02/2025  | Fri, 07/02/2025  | Sat, 08/02/2025 | Sun, 09/02/2025   |
| / 7   |  |  |                 |   |
|   |  | Sol ikhin<br>Loyal<br>BID: 444256110747643<br>Checked In, Prepaid  |                 |   |
| alih frima mar...<br>D: 444252110658744<br>Arriving Soon, Prepaid |  | Rafi Muhammad R...<br>BID: 1528447437<br>Checked In, Prepaid       |                 |   |
|   |  | rimba rimba<br>BID: 444250110764299<br>Checked In, Pay at Hotel    |                 |   |
|   | Riyan Andriyana<br>Loyal<br>BID: 444251110706362<br>Checked Out, Prepaid | Rafi Muhammad R...<br>BID: 1528447437<br>Checked In, Prepaid       |                 | rati kumala dew...<br>BID: 1530793941<br>Arriving Soon, Prepaid |
|   |  | Wisanu Aji Setiawan<br>BID: 444253110492862<br>Checked In, Prepaid |                 |   |
|   |  | rimba rimba<br>BID: 444250110764299<br>Checked In, Pay at Hotel    |                 |   |

**Picture 10 Room Chart**

## Conclusion

This study successfully identified several problems faced by the RYD Family Hotel related to the management of check-in, check-out, and financial report data which are still done manually. This manual system hampers the hotel's operational processes, especially in terms of the speed of recording guest data and making accurate financial reports. The use of ledgers as a means of recording makes the process slow, prone to errors, and difficult to find data efficiently, which ultimately affects the quality of hotel services to guests. As a solution to this problem, this study proposes the development of a computer-based information system to replace the existing manual system. The designed information system will facilitate the management of guest data, recording check-ins and check-outs, and making financial reports. With this system, the expected data recording process can be done faster, more accurately, and more efficiently, which will improve operational efficiency and the quality of service provided by the hotel.

The implementation of this management information system is also expected to ease the workload of hotel staff, especially in the front office, who have been burdened with repetitive manual work. In addition, this system will minimize errors in recording that can impact the hotel's financial reports and managerial decisions. With a more automated system, it is expected that hotel managers can focus more on strategic decision making and increase guest satisfaction. Overall, this study provides a significant contribution to improving the operational efficiency of the RYD Family Hotel. The implementation of a computer-based information system will have a positive impact in terms of data management, time efficiency, and accuracy of financial reports. With a more integrated and efficient system, hotels can compete better in the increasingly competitive hotel industry, while increasing profitability and quality of service to customers.

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