The Implementation of *KAMI SAKTI* Application in The Management of The Wing Ed Hotel Politeknik Negeri Bali

Ayu Dwi Yulianthi[1] and Luh Linna Sagitarini[2]

[1,2] Tourism Department, Politeknik Negeri Bali, Bali, Indonesia
dwiyulianthi@pnb.ac.id

Abstract. The Wing Ed Hotel is a laboratory owned by the tourism department, Politeknik Negeri Bali. Apart from being a laboratory, The Wing Ed Hotel also sells its facilities to the general public who want to find a place to stay so they can generate income. Information systems in laboratories at universities still use information systems that are not well integrated. With the current development of ICT, things like that should no longer happen because with ICT any information should be easily recorded and obtained. From this problem, researchers are trying to find solutions, new methods, or models that can be collaborated with ICT so that they can provide the best solution. This gave rise to the idea of developing a system whose model was integrated with all units in the laboratory. Referring to this problem, a solution, and innovation *KAMI SAKTI* was designed *"Kolaborasi, Monitoring dan Pelayanan Informasi Infrastruktur dengan Sistem Aplikasi Terintegrasi"* about the implementation of governance reporting, implementation and monitoring of facilities and infrastructure to resolve problems or damage to infrastructure that can immediately resolve well and quickly, accurate financial records, and accelerated publication of information and promotions.

Keywords: Hotel Laboratory, Information Systems, *KAMI SAKTI*, Public Service Agency

1   Introduction

Information and communication technology or ICT (Information and Communication Technology) has become an inseparable part of global life (Sholiq et al., 2016). Therefore, every institution must always integrate ICT to build and empower knowledge-based human resources so they can compete in the global era. The application of ICT has now spread to almost all fields, including for the benefit of developing management information systems such as in the fields of libraries, education, and learning (Darmawan, 2011). The progress of information and communication technology or ICT from year to year is proof that humans are always trying to find easy, fast, and accurate ways to fulfill their daily needs (Afrina & Ibrahim, 2012). An information system is technically a unit of interconnected components that

collects or retrieves, processes, stores, and distributes information to support decision-making and control within an organization (Laudon & Laudon, 2007). Computers are one of the results of human thought to fulfill their life needs in managing data into information. The speed of processing data on a large scale and the high level of accuracy of the resulting data are the reasons why computers are widely used as a means of meeting information needs. For example: to support the theoretical learning delivered by the lecturer, it must be accompanied by practical learning in the laboratory using a computer (Gustini & Wulandari, 2020). The Wing Ed Hotel is a laboratory owned by the tourism department, Politeknik Negeri Bali. Apart from being a laboratory, The Wing Ed Hotel also sells its facilities to the general public who want to find a place to stay so that they can generate income which is then remitted to the state as Non-Tax State Income. Information systems in laboratories at universities still use information systems that are not well integrated. For example, many hotel activities or activities are still carried out manually, for example: recording hotel income and hotel expenditure transactions which still use forms so the risk of damage and loss of files is very high, reporting if damage and infrastructure occurs cannot be immediately known to the relevant parties, checking room availability cannot be confirmed directly to guests, and so on. With the current development of ICT, things like that should no longer happen, because with ICT, any information should be easily recorded and obtained. The laboratory is an effective learning resource for achieving the expected competencies for students. To increase efficiency and effectiveness, laboratories must be managed and utilized well. No matter how good and complete a laboratory is, it will not mean anything if it is not supported by good management. Therefore, to optimize the function of the laboratory, it needs to be managed well to ensure the teaching and learning process runs smoothly (Susanti & Arifin, 2012). From this problem, researchers are trying to find solutions, new methods, or models that can be collaborated with ICT so that they can provide the best solution. This gave rise to the idea of developing a system whose model was integrated with all units in the laboratory. Service governance as well as expanding the targets and market segmentation of The Wing Ed Hotel's services must continue to be encouraged. To improve the quality of services and expand these services, performance management of existing facilities and infrastructure is needed as efforts to publish information and promotions, with the hope of increasing the level of satisfaction of service recipients and awareness of various related parties regarding the services provided by The Wing Ed Hotel. Referring to this problem, a solution and innovation *KAMI SAKTI "Kerjasama, Monitoring dan Informasi Layanan Sarana Prasarana dengan Sistem Aplikasi Terintegrasi"* was designed infrastructure with an integrated application system concerning the implementation of reporting governance, implementation, and monitoring of facilities and infrastructure to resolve problems or damage to infrastructure that can be resolved or served well and quickly, accurate financial records, as well as accelerated publication of information and promotions. This is also the same as the function of BLU where the Polytechnic is a BLU work unit, namely to improve services to society to advance general welfare and make the nation's life more intelligent by providing flexibility in financial management based on economic principles and productivity, and implementing sound business practices.

2   Methodology

Previously the author made direct observations of how hotel laboratories are managed in the field and conducted interviews with the management of The Wing Ed Hotel, after that the author will build and develop the *KAMI SAKTI "Kerjasama, Monitoring dan Informasi Layanan Sarana Prasarana dengan Sistem Aplikasi Terintegrasi"*. The method approach used is research and development. The procedure used in developing this application uses the System Development Life Cycle (SDLC) method approach. This method consists of six stages which include: system engineering, analysis, design, coding, testing, and maintenance. This system development life cycle is also known as the waterfall model because at each stage the system will be carried out in descending order from one stage to another. Systems engineering is the initial stage in application development. At this stage, information needs are identified by all elements in the inventory control system. This stage is expected to collect the general content of the database as a whole. At the software requirements analysis stage, software requirements are collected. To understand the program to be built, a system analyst must understand the required information domain, especially the required functions, system performance, and system interface. The design phase transforms the results of the requirements analysis into a software model that can be reviewed for quality before coding starts. This process includes stages such as data structure design, software architecture, detailed procedures, and interface characteristics. The coding phase involves converting the design into a machine-readable format, and if the design is comprehensive, coding can proceed systematically. After coding is complete, testing is conducted, focusing on both internal logic to ensure every statement is tested, and external testing to identify errors and confirm that the specified inputs produce the expected results. Once delivered, the software will inevitably change (Anisa et al., 2024; Arora & Arora, 2016; Bulman, 2017; Ghumatkar & Date, 2023; Ridwan et al., 2021). Conceptual data model database can be seen in Figure 1.
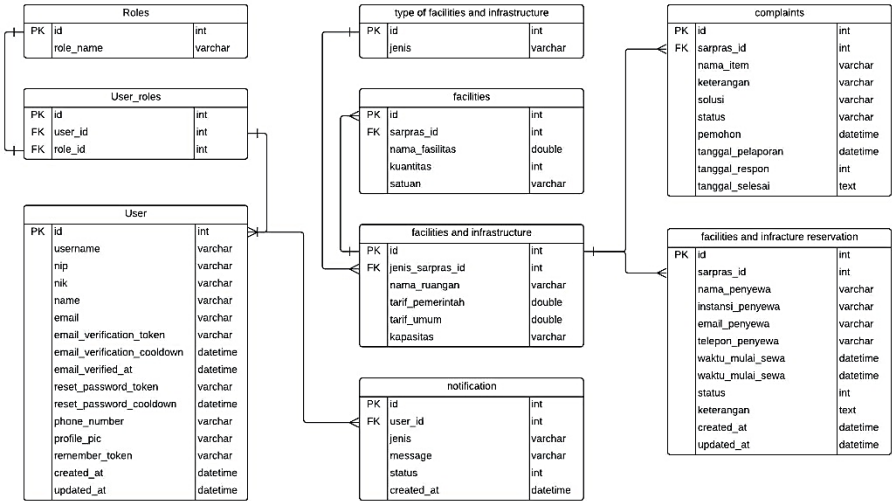
Figure 1. Conceptual data model database (in Indonesia language)

3   Result and Discussion

Class diagrams are used to display the classes and packages in the system. Class diagrams provide a static description of systems and the relationships between them. Usually, several class diagrams are created for a single system. Some diagrams will display subsets of classes and their relationships. Several diagrams can be created as desired to get a complete picture of the system being built. Below is a class diagram of an online hotel reservation system, as shown in Figure 2.
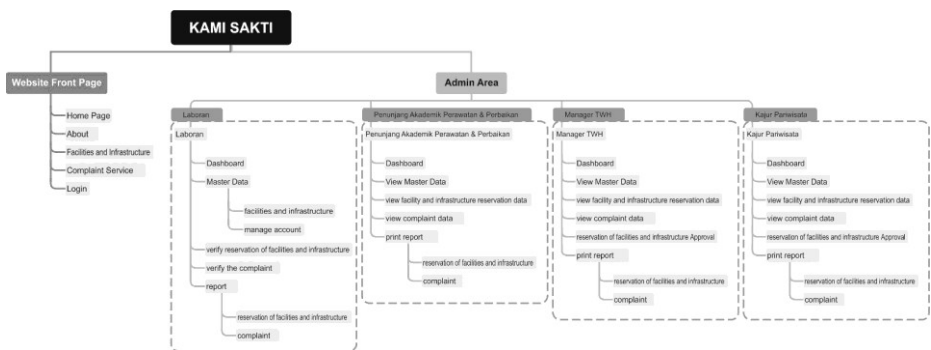

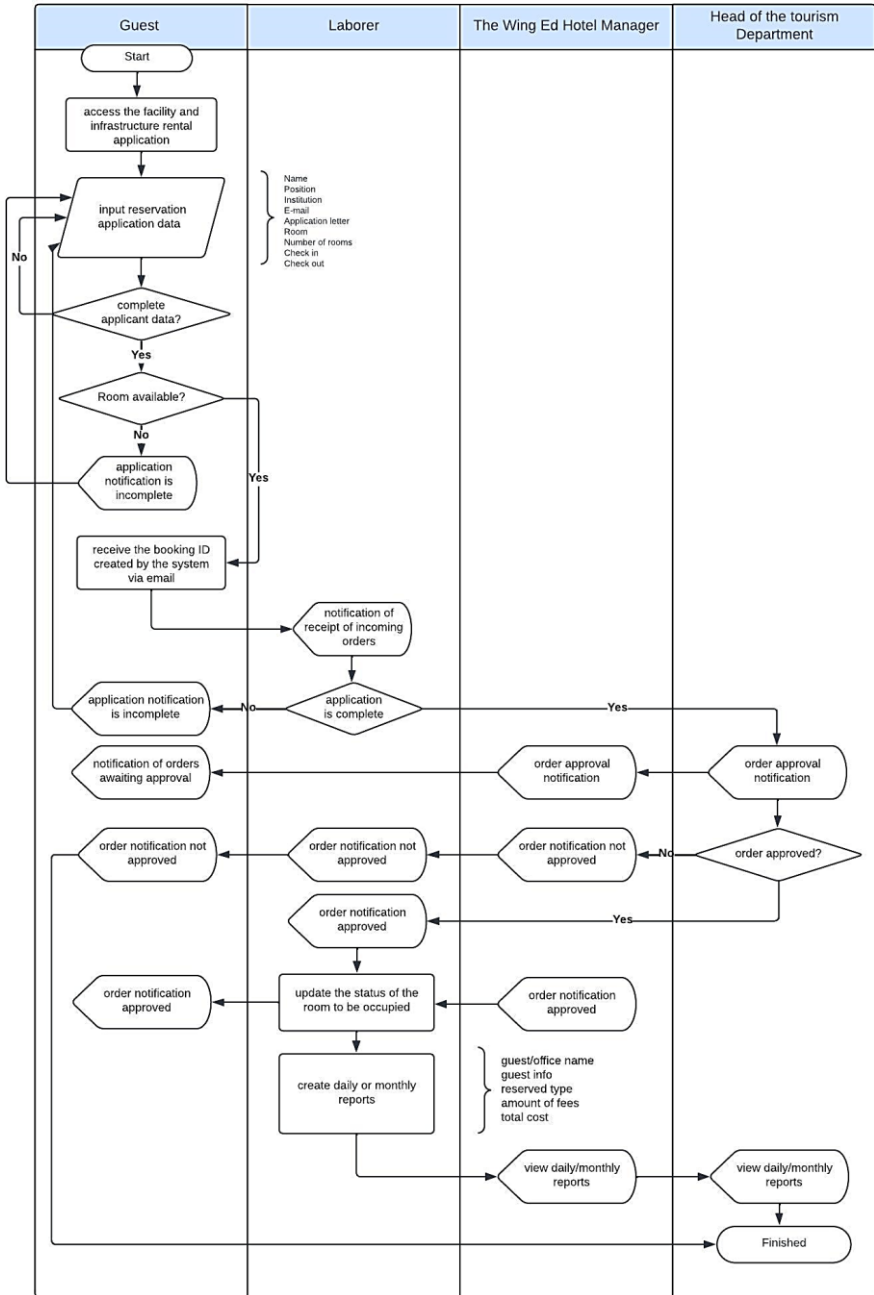**Figure 2.** Design database "*KAMI SAKTI*" (in Indonesia language)

Figure 3. The process of reservation hotel facilities and infrastructure

Figure 3 is an activity diagram that describes the flow of activities in the current system designed. Activities carried out by user members, namely user members must log in first to be able to access the application for renting facilities and infrastructure, ordering facilities, viewing profiles, and ordering schedules. If the room or facility is available and the applicant's notification is complete, the user member will receive a booking ID created by the system via email. Notification of receipt of incoming orders and applicant data will be received by the laboratory assistant/staff, and if complete it will be forwarded to the manager and head of department. If the request has been approved by the manager and department head, the user or guest will receive an approval notification. The laboratory assistant will update the status of the room/room and make daily/monthly reports which will then be reported to the manager and head of department. If the order notification is not approved, the user will receive a notification and the order cannot be continued.
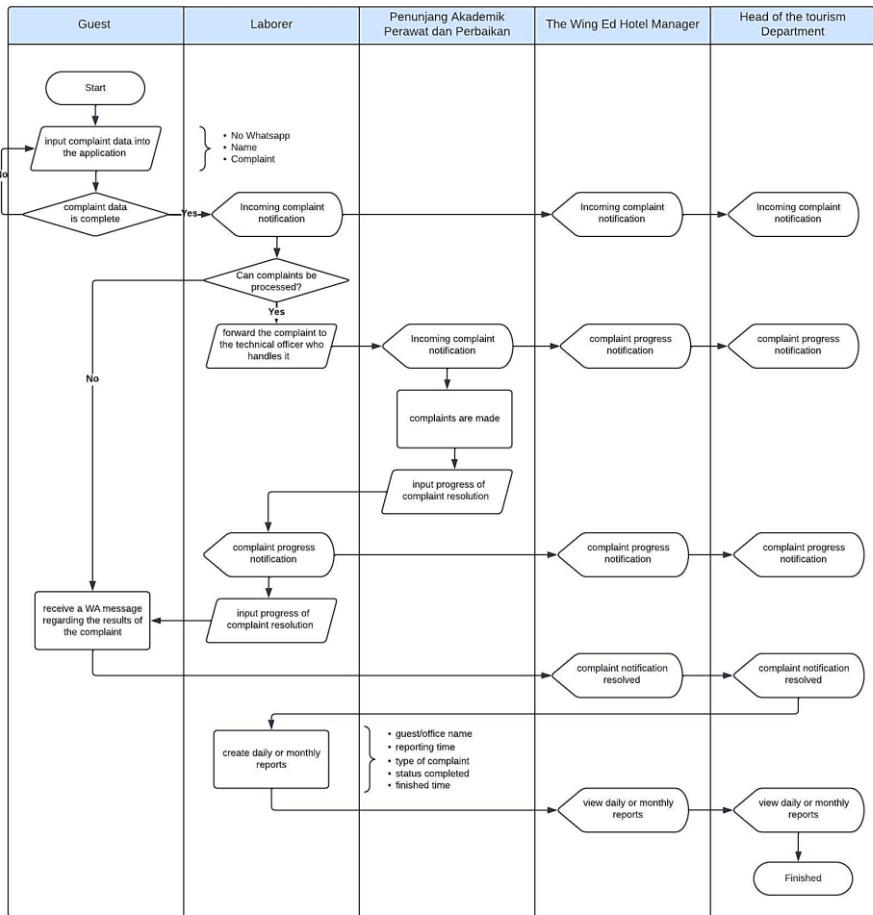

Figure 4. Facility and infrastructure complaint process

From the flow chart above, as shown in Figure 4, if guests want to submit complaints regarding facilities and facilities, hotel guests can first log in to the system and complete the complaint form in the application. Complete complaint data will be received by the laboratory assistant or hotel staff, then if the complaint can be handled immediately, the laboratory assistant/staff will forward the complaint to the technical officer who handles it. Hotel guests will also receive a message via WhatsApp regarding the outcome of the complaint if the complaint cannot be handled at that time. Also. Complaint data is also received by managers and Heads of Tourism. The technical officer in charge will immediately resolve all matters at issue and input the progress of resolving complaints which will be received by the laboratory assistant/staff and the laboratory assistant or staff will also input the progress of resolving complaints, which will be conveyed to hotel guests. Notification of complaints that have been resolved will also be received by the manager and head of tourism.
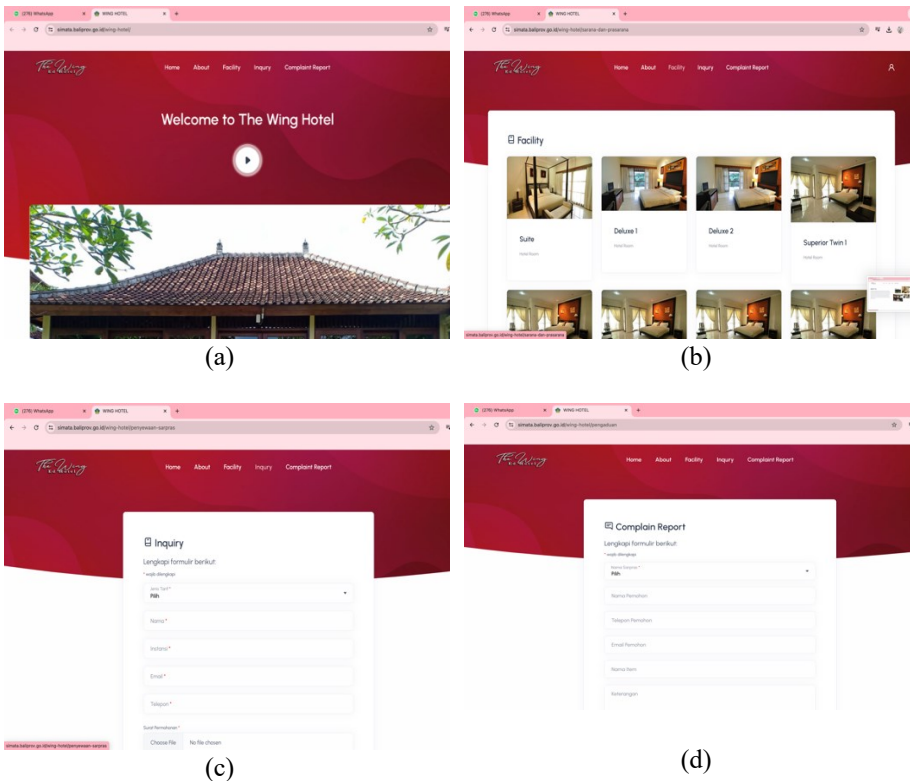

(a)   (b)

(c)   (d)

Figure 5. Website display
Photograph by Ayu Dwi Yulianthi, permission by The Wing Ed-Hotel

The image above, as shown in Figure 5 is the initial display of The Wing Ed hotel reservation system website. Several menus can be selected, namely Home, About, Facility, Inquiry, and Complaint Report, where each of these menus will contain several things, such as the About menu will display a profile about The Wing Ed Hotel, and

the Facility menu will display several photos and descriptions. regarding the facilities owned by the Hotel, the Inquiry menu contains ordering information and order input, the Complaint report menu contains a complaint formula regarding the hotel facilities and infrastructure.

4 Conclusion

Based on the results of the discussion that has been described in the chapters previously, some conclusions could be drawn from the construction of the application Room Reservations and Complaints about Facilities and Infrastructure at The Wing Ed Hotel via the website are as follows: This website-based room reservation application can make things easier to carry out room reservation processing services anywhere and anytime, by designing or building the *KAMI SAKTI* application, the public or hotel guests do not need to come directly to the hotel to carry out the room reservation process; This room reservation application can provide information to the public about hotel information, facilities, room rates, and photos of The Wing Ed Hotel; This room reservation application has benefits for the community in terms of time efficiency. There are instructions regarding the requirements for making payments when making payments for room reservations with this application, as well as the ease of doing, so confirm payment directly with this application. Apart from that, it also makes it easier for guests to submit their complaints via the website and they can be handled directly by the relevant officers.

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