


Research Article

E-Sewaan Lembaga Zakat Negeri Kedah

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Abstract: The E-SEWAAN LZNK system is an innovative online reservation platform designed to address the limitations of manual reservation processes for seminar halls and VIP rooms Lembaga Zakat Negeri Kedah (LZNK). The absence of an online system at LZNK necessitates customers to manually fill out reservation forms lacking essential room details, such as maximum capacity, pricing, and visuals. Current procedures involve lengthy waiting times for postal notifications regarding reservation status, while reservation records are stored using a time-consuming filing system. In response, the E-SEWAAN LZNK system was developed with the objectives of creating an online reservation system, establishing a systematic database for efficient information storage, and providing detailed room information. The Waterfall methodology was employed, including phases such as requirement gathering, design, implementation, testing, and maintenance. Findings indicate that the system significantly improves reservation times, enabling online submissions and real-time approval checks. Moreover, it enhances data security, eliminates manual processes, and provides customers with comprehensive room details. In this digital era, where speed and convenience are valued, the E-SEWAAN LZNK system meets public preferences for easy and efficient reservation methods. It improves the organization and storage of reservation information, eliminates the need for manual bookings, and ensures data confidentiality. Customers can easily access room details, including photos and pricing, simplifying the reservation process. Overall, the system offers a modern and user-friendly approach, and user-centric solution for reserving seminar halls and VIP rooms at LZNK.

Keywords: online reservation system, manual reservation, room reservation system.

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1. INTRODUCTION

The current manual form-based system lacks crucial details, such as room capacity, pricing and visual references, limiting customers ability to make informed decisions faced by Lembaga Zakat Negeri Kedah (LZNK) in its room reservation process. Additionally, the lengthy waiting period for reservation approval and the cumbersome traditional filing system for record management impede operational efficiency. To overcome these limitations, the E-Sewaan LZNK system will be developed, providing an efficient online reservation platform and an enhanced record management system.

The E-Sewaan LZNK system will offer a user-friendly interface with comprehensive information about seminar halls and VIP rooms, including capacity, pricing and visual representations (Johnson, 2021; Roberts & Turner, 2018). By incorporating these details, customers can make well-informed booking decisions, enhancing their overall experience. The system will replace the manual form submission process with a streamlined online reservation process, reducing waiting times for approval and providing instant confirmation.

To address record management challenges, the E-Sewaan LZNK system will introduce a digitalized record management system and eliminating the inefficiencies of traditional filing (Brown & Garcia, 2019). This digital system will enable efficient retrieval and tracking of previous reservations, improving operational efficiency and reducing administrative burden.

The project will follow a structured development methodology, including requirements gathering, system design, implementation and testing. The development team will collaborate closely with LZNK staff to ensure the system meets their specific needs and requirements. User training and support will be provided to ensure a smooth transition (Anderson, 2020).

By implementing the E-Sewaan LZNK system, LZNK aims to enhance reservation efficiency, improve customer satisfaction and optimize record management. The user-friendly interface, comprehensive information and streamlined reservation process will contribute to a seamless and convenient experience for both customers and LZNK staff.

2. METHODOLOGY/DESIGN SOLUTION

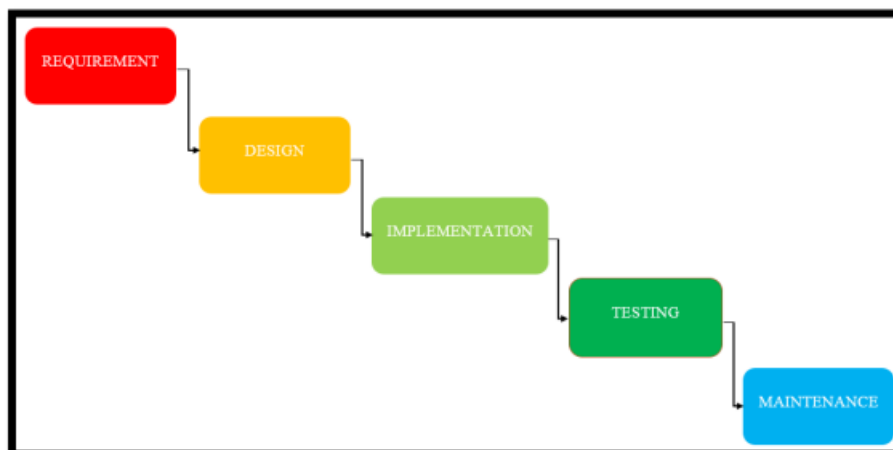


Figure 1: Waterfall Model

The waterfall model is a sequential development process that flows like a waterfall through all phases of a project analysis, design, development, testing and maintenance for example with each phase completely wrapping up before the next phase begins.

i. Requirement

In this phase, we collect information requirements and analyse the feasibility of developing E-Booking LZNK system. In addition, we also held an interview with the responsible officer at the LZNK organization to obtain approval and requirements in the process of developing the system.

ii. Design

The design phase is the phase to design the input and output interface and design database. User requirements specifications that have been obtained is translated into a more organized form. The database system was developed using phpMyAdmin Meanwhile, the system interface will be developed using Adobe Dreamweaver software.

iii. Phase Implementation

This phase is also known as the testing phase where programmers code in the software to develop the system based on the requirements that have been listed in the requirements phase, then the programmers design the system based on the elements that have been set by the client. After that, the programmer needs to ensure that the developed system is free of any errors that occur while the system is running.

iv. Testing

This phase is also known as the testing phase where the entire system will be tested before being used as a complete system. The program code will be tested whether it can work or not. This phase is carried out to identify that the developed program code is free from any errors. A system test will be performed to ensure that no errors occur while the system is running. The system will be handed over to users for testing and evaluation.

In this testing phase we will conduct user acceptance test with LZNK either the system complies with LZNK prerequisites and give LZNK to test the system. After that, update the coding if any issues arise while testing the system and retest the EBOOKING LZNK system.

v. Maintenance

The maintenance phase is the last phase after the system is developed. Maintenance allows developers to make improvements to errors that were not detected in the earlier stages. Maintenance includes repairing errors, improving the implementation of the system unit, upgrading and adjusting the system as needed. If customers and users face problems during the testing phase, then programmers need to find solutions to those problems. Then make improvements to the system from time-to- time based on the progress of the ICT environment. For example, maintenance in terms of user requirements, errors in the system and make sure the system works smoothly.

3. FINDINGS

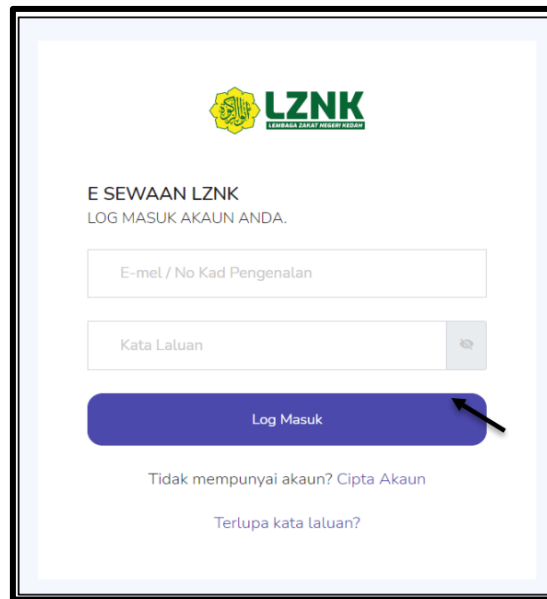


Figure 2: Login interface

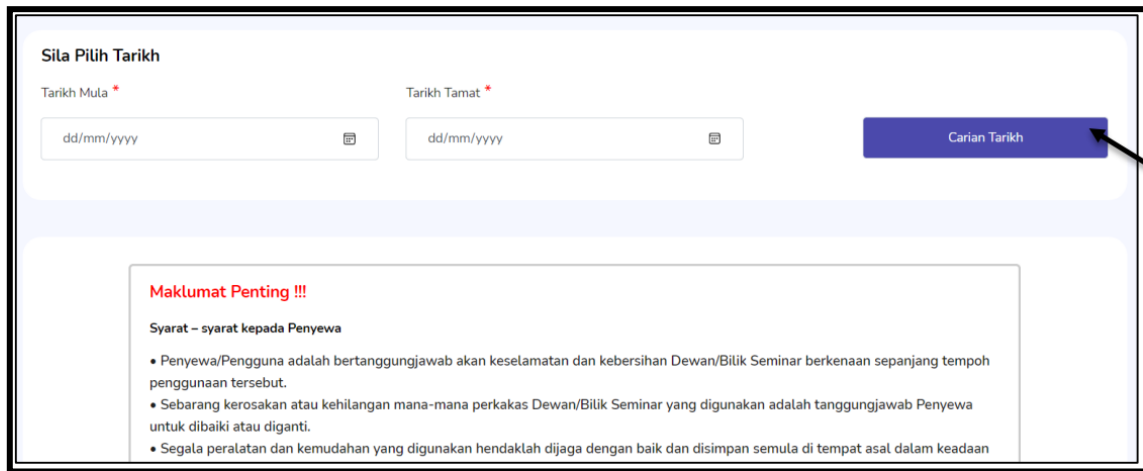


Figure 3: Search date to check availability room

Maklumat Bilik / Dewan

* Sila isi semua dengan lengkap

Bilik/Dewan *

Bilik Seminar, Dato' Seri Paduka Tuan 1

--Sila Pilih--

Dewan Dato' Shaikh Mahmood Naim

Bilik Seminar, Dato' Seri Paduka Tuan 1

Bilik Seminar, Dato' Seri Paduka Tuan 2

Bilik VIP

Aktiviti *

Nama Program / Aktiviti

Maklumat Bilik / Dewan

* Sila isi semua dengan lengkap

Bilik/Dewan *

Bilik Seminar, Dato' Seri Paduka Tuan 1

Masa Mula *

hingga

Masa Tamat *

Aktiviti *

Nama Program / Aktiviti

Peserta

40

Borang Permohonan

Muat Naik File atau Gambar

Must Naik

Figure 4: Reservation form

LZNK NABIL IZZAT BIN IBRAHIM

Utama

Senarai Bilik

Borang Tempahan

Status Tempahan

Maklumat Diri

Status Tempahan Anda

Show 10 entries

Search:

#	Nama Bilik	Maklumat Tempahan	File Sokongan	Lampiran	Tarikh - Masa	Status	Batal	Cetak
1	Dewan Dato' Shaikh Mahmood Naim	NABIL IZZAT BIN IBRAHIM Bengkel Al-Fatihah 150 orang 0147896523	260523Biasa(a)187.pdf		26/05/2023 26/05/2023 08:30 am 10:30 am	Permohonan	Batal	
2	Bilik Seminar, Dato' Seri Paduka Tuan 2	NABIL IZZAT BIN IBRAHIM MAJLIS MAKAN 40 orang 0147896523	230523Biasa(a)5042.pdf	Lulus(a)9985160523.pdf	23/05/2023 23/05/2023 09:01 am 10:03 am	Telah Lulus		
3	Bilik Seminar, Dato' Seri Paduka Tuan 2	NABIL IZZAT BIN IBRAHIM Majlis Khatam Al-Quran MMPS 40 orang 0147896523	310523Biasa(a)9353.pdf		30/06/2023 30/06/2023 01:30 pm 04:00 pm	Sedang Proses		
4	Bilik VIP	NABIL IZZAT BIN IBRAHIM Mesyuarat Ahli PIBG MMPS 20 orang 0147896523	250523Biasa(a)269.pdf	Tolak(a)3695150523.pdf	28/09/2023 28/09/2023 10:30 am 03:30 pm	Ditolak		
5	Dewan Dato' Shaikh Mahmood Naim	NABIL IZZAT BIN IBRAHIM Majlis Musabaqah Kebangsaan 150 orang 0147896523	050623Biasa(a)1327.pdf		05/06/2023 05/06/2023 08:30 am 04:30 pm	Permohonan	Batal	

Showing 1 to 5 of 5 entries

Previous 1 Next

Figure 5: Reservation status user

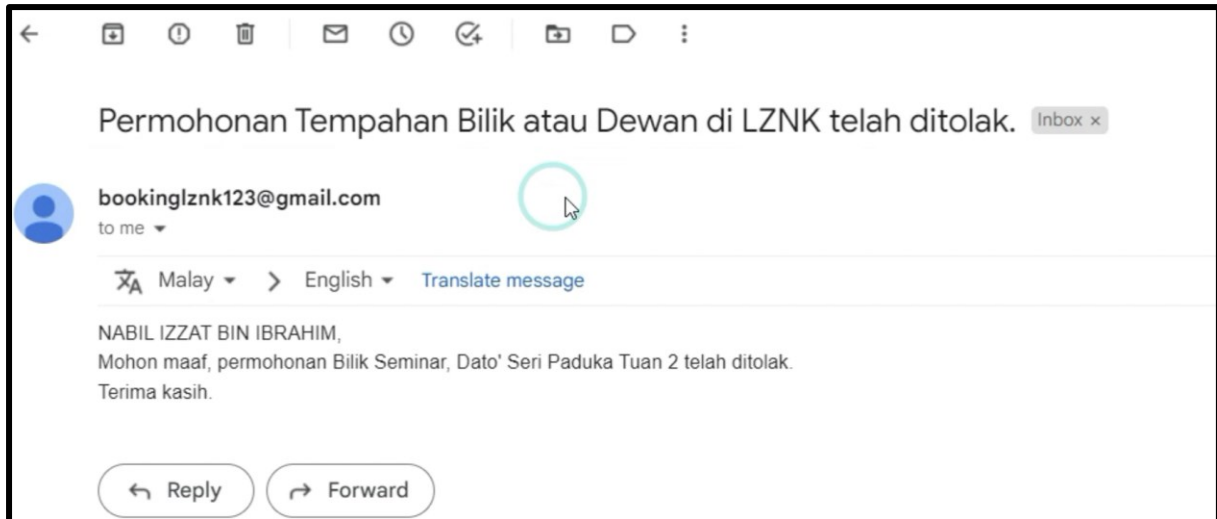


Figure 6: Reservation status user in email

Baru	Proses	Lulus	Tolak	Batal
4	3			

Telah Ditolak					
#	Nama Bilik	Maklumat Tempahan	File Sokongan	File Lampiran	Tarikh - Masa
1	Bilik Mesyuarat Dato' Mursyid Diraja Syeikh Abdul Majid	MUHAMMAD ZAMBRI BIN SULAIMAN 20 KG PANDANG DEPAN 04900 PANDANG KEDAH Majlis Perasmian Aplikasi JAIK 20 orang 0145332565	250523Agensi(a)1539.pdf		25/05/2023 26/05/2023 08:15 am 03:15 pm
2	Bilik Mesyuarat Dato' Mursyid Diraja Syeikh Abdul Majid	AMIN BIN AHMAD TAMAN SEROJA DALAM PAYA TERENDAM 08340 SIK KEDAH Seminar Bulanan JAIK 20 orang 0147859632	230523Agensi(a)8736.pdf	Tolak(a)6231150523.pdf	23/05/2023 25/05/2023 08:15 am 03:15 pm
3	Bilik Mesyuarat Dato' Mursyid Diraja Syeikh Abdul Majid	AMIN BIN AHMAD TAMAN SEROJA DALAM PAYA TERENDAM 08340 SIK KEDAH Mesyuarat Ahli PIBG MMPS 20 orang 0147859632	250523Biasa(a)269.pdf	Tolak(a)3695150523.pdf	25/05/2023 25/05/2023 10:30 am 03:30 pm

Figure 7: Reservation status admin

STATUS TEMPAHAN

PRINT

Bulan: Semua Tahun: Semua

Nama Bilik / Dewan	Bilangan Batal	Bilangan Baru	Bilangan Lulus	Bilangan Totak	Status
Dewan Dato' Shaikh Mahmood Naim	1	5	3	0	Semua Baharu Lulus Tolak
Bilik Seminar, Dato' Seri Paduka Tuan 1	0	2	0	2	Semua Baharu Lulus Tolak
Bilik Seminar, Dato' Seri Paduka Tuan 2	2	1	2	3	Semua Baharu Lulus Tolak
Bilik VIP	0	1	2	2	Semua Baharu Lulus Tolak
Bilik Mesyuarat Dato' Mursyid Diraja Syeikh Abdul Majid	0	2	0	0	Semua Baharu Lulus Tolak
JUMLAH	3	11	7	7	28

Figure 8: Reservation analysis can sort by location or date

STATUS TEMPAHAN

Me

Nama Bilik / Dewan	Bilangan Batal	Bilangan Baru	Bilangan Lulus	Bilangan Tolak	Jumlah Tempahan
Dewan Dato' Shaikh Mahmood Naim	1	1	1	0	3
Bilik Seminar, Dato' Seri Paduka Tuan 1	0	1	0	0	1
Bilik Seminar, Dato' Seri Paduka Tuan 2	0	1	1	1	3
Bilik VIP	0	1	0	1	2
JUMLAH STATUS	1	4	2	2	9

Print 1 page

Destination: Save as PDF

Pages: All

Pages per sheet: 1

Margins: Minimum

Options: Headers and footers
 Background graphics

Save Cancel

Figure 9: Admin can save reservation status in .pdf

REPORT PELANGGAN

NO. IC	NAMA	EMAIL	NO PHONE
010205020013	NABIL IZZAT BIN IBRAHIM	nabilizzat38@gmail.com	0147896523
010405020301	SULAIMAN BIN ABD LATIF	sulaiman@gmail.com	0177859632
020129020917	NABIL IZZAT BIN IBRAHIM	assss@gmail.com	0125487895
860101020305	ZAINAL ABIDIN BIN ZUBAIR	zainal@gmail.com	0123698547
920204020501	'ZAQUAN @ ADHA BIN ZAKARIA	zaquan@gmail.com	0150148715
920906025039	MUHAMMAD HAFIZ BIN SAMSURI	hafiz@zakatkedah.com.my	0174548396
960203020555	ADHA MUBIN BIN ABDULLAH	adhaabd@gmail.com	01121325465
980203020035	ABDULLAH MASUUD BIN HI LONG	abdullah@gmail.com	0125478963

Showing 1 to 8 of 8 entries

Figure 10: Record customer

REPORT AGENSI

ID	NAMA	EMAIL	NO TELEFON	NAMA PEGAWAI	NO TELEFON PEGAWAI
1	BOMBA ANAK BUKIT	bombaAB@gmail.com	0122909921	AMIR RUDDIN BIN NIZAM	01121352455
2	ZAKAT KOTA SETAR	lembagazakatkedah@gmail.com	0142563987	SAIFUL APEK BIN ZAKARIA	0147415826
3	JABATAN AGAMA ISLAM KEDAH	aziblhadi99@gmail.com	0198523647	ZAMRI TALIB BIN HI LAN	01145879635

Showing 1 to 3 of 3 entries

Figure 11: Record agency

REPORT PEGAWAI

NO. IC	NAMA	EMAIL	NO PHONE
010205026753	NABIL AMIN BIN ZUKIFLI	nabil22@gmail.com	0154789632
820201020059	MUHAMMAD ZAYNE SHAIK BIN ABDUL	zayne2209@gmail.com	0145269873
980202025524	HARTINI BT HALIZA	hartini@gmail.com	0123654789

Showing 1 to 3 of 3 entries

Figure 12: Record officer

REPORT ADMIN

Search:

ID	NAMA	USERNAME	JENIS
1	AZIB LUTFIL HADI BIN ABD HAMID	alhadi69	Super Admin
2	MUHAMMAD ADHA BIN ABDULLAH	adha02	Bilik / Dewan
3	MUHAMMAD ZAYNE KAMIL BIN AKMAL	zayne2	Mesyuarat
4	MUHAMMAD ZARIS BIN ROZAIMI	zaris23	Bilik / Dewan

Showing 1 to 4 of 4 entries
Previous Next

Figure 13: Record admin

The screenshot shows the 'Data Bilik / Dewan' section in the LZNK Admin interface. It features a table with columns for room type, name, main image, amenities, price, participants, and status. A sidebar on the left contains navigation options like 'Bilik / Dewan', 'Mesyuarat', and 'Super Admin'.

Jenis Bilik	Nama Bilik	Gambar Utama & Tambahan	Kemudahan	Harga	Peserta	Kemaskini
Kakitangan	Bilik Mesyuarat Dato' Mursyid Diraja Syeikh Abdul Majid	Utama VIP.jpg	<ul style="list-style-type: none"> 1x meja bulat 20x kerusi 	<ul style="list-style-type: none"> Sekali Penggunaan - RM200.00 	20 orang	<input checked="" type="checkbox"/>
Umum	Dewan Dato' Shaikh Mahmood Naim	Utama DB.jpg	<ul style="list-style-type: none"> 1 x Dewan (Aircond) 1 x Rostrum 1 x Meja Pendaftaran 1 x Meja Hadiah 150 x Kerusi (Dewan) 1 x Papan Putih + Marker Pen 3 x Layar Putih PA sistem Wifi 24 botol x air mineral (350ml) Tempat Letak Kereta 	<ul style="list-style-type: none"> 8.00 pagi - 12.00 tengahari - RM1,000.00 8.00 pagi - 5.00 petang - RM2,000.00 8.00 pagi - 10.00 malam - RM2,500.00 	150 orang	<input checked="" type="checkbox"/>

Figure 14: Admin can add, update or delete room details for reservation

The screenshot shows the 'Tambah Data Bilik / Dewan' form in the LZNK Admin interface. The form includes fields for 'Jenis', 'Nama Bilik', 'Gambar Utama', 'Gambar Tambahan', and 'Kemudahan'. There are 'Muat Naik Gambar' buttons for image uploads and an 'Upgrade' button for the amenities field.

Figure 15: Add new room or seminar hall

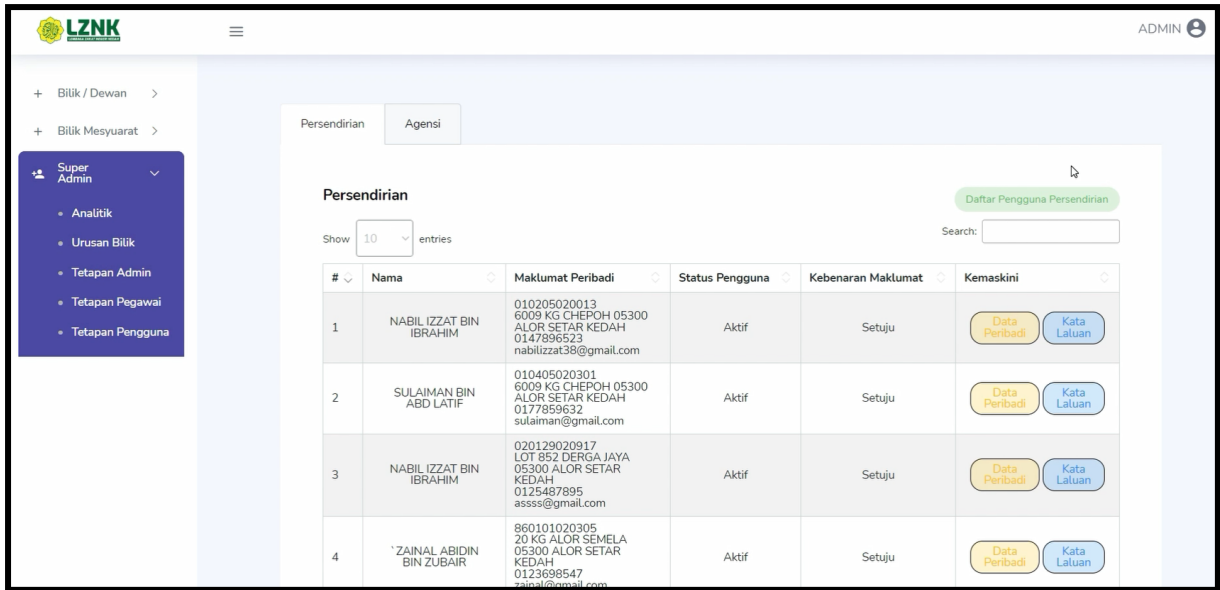


Figure 16: Admin can set user status and password

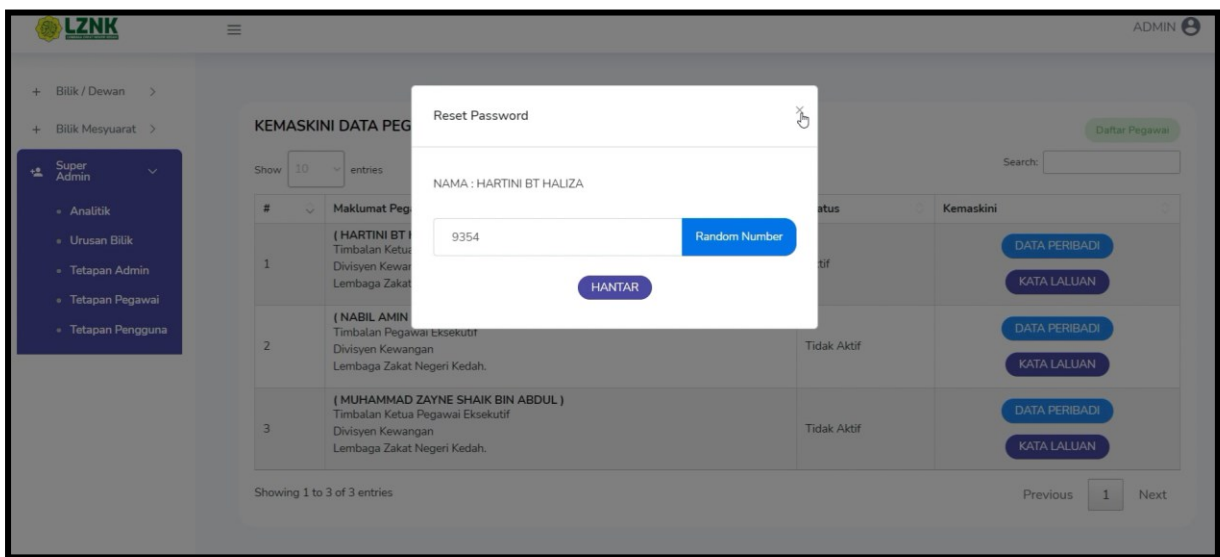


Figure 17: Admin can reset randomly password or manually enter new password



Figure 18: For more details about function in this system please scan QR code

4. INNOVATION HIGHLIGHT

i. Online Reservation Platform

The E-Sewaan LZNK system introduces an online platform for seamless reservation of seminar halls and VIP rooms and eliminating the need for manual forms.

ii. Detailed Room Information

The system provides comprehensive details about the available seminar halls and VIP rooms, including room capacity, pricing & visuals and enabling customers to make informed decisions.

iii. Instant Reservation Confirmation

Customers receive immediate confirmation of their reservation status online and eliminating the need to wait for a letter from LZNK.

iv. Efficient Record Management

The E-Sewaan LZNK system implements a digital record management system, making it easier to track and retrieve previous reservation records, such as the number of reservations by room and date.

iv. Enhanced User Experience

By introducing an online reservation system with detailed information and efficient processes, the E-Booking LZNK system aims to provide a smoother and more convenient experience for customers and improving overall satisfaction.

5. COMMERCIAL VALUES/APPLICATION

i. LZNK

Enhanced operations, improved customer satisfaction and optimized record management capabilities contribute to a positive brand image, increased efficiency and better decision-making processes.

ii. Event Management Companies

Convenient and efficient platform for reservations, detailed information and instant confirmation create valuable partnerships and revenue opportunities.

iii. Educational Institutions

User-friendly platform with comprehensive information and visual representations facilitates seamless seminar hall reservations for educational institutions.

iv. Hospitality Industry

Streamlined booking process and collaboration potential provide added value to hotels and resorts, enhancing guest satisfaction and competitiveness.

6. DISCUSSION

The E-Sewaan LZNK system incorporates current IT technologies to revolutionize the room reservation process. The online reservation platform leverages the power of the internet and web-based applications to provide a seamless and convenient experience for customers. It utilizes cloud computing to store and manage reservation data, ensuring accessibility and scalability. The system's detailed room information feature utilizes advanced database management systems to store and retrieve comprehensive details about seminar halls and VIP rooms. This allows for efficient data management and quick retrieval of information. Instant reservation confirmation is made possible through real-time communication technologies, enabling customers to receive immediate confirmation online. This reduces dependency on traditional mail systems and speeds up the reservation process.

Efficient record management is achieved through the implementation of a digital record management system. This involves the use of database technologies to store and organize reservation records, allowing for easy tracking and retrieval. The E-Sewaan LZNK system showcases the integration of various current IT technologies such as web-based applications, cloud computing, real-time communication, and database management systems. These technologies enhance the system's functionality, efficiency, and user experience, aligning with the advancements in IT technology in today's digital age.

7. CONCLUSION

The development of the E-Sewaan LZNK system brings significant value to Lembaga Zakat Negeri Kedah (LZNK) and its stakeholders. The system aims to enhance reservation management efficiency, improve customer experience and optimize record management. By implementing the E-Sewaan LZNK system, LZNK will streamline the reservation process, eliminating manual form submission and reducing approval waiting times. Customers will benefit from a user-friendly platform, instant confirmation and comprehensive information about seminar halls and VIP rooms, resulting in improved customer satisfaction.

Furthermore, the system's digitalized record management capabilities will improve operational efficiency by replacing the traditional filing system. It will enable efficient retrieval and tracking of previous reservations, saving time and reducing administrative burden. The commercial value extends to event management companies, educational institutions and the hospitality industry. Event management companies will have a convenient platform for reservations, fostering partnerships and revenue opportunities. Educational institutions will benefit from a simplified reservation process for seminar halls. The hospitality industry will experience a streamlined booking experience and collaboration potential.

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