

1. Scenario: Tenant Overpays Deposit

Example:

- Monthly rent: RM300
- Required deposit: RM650
- Tenant pays: RM700

Process:

Overpayment Handling:

1. Recognition:

- The system recognizes the overpayment of RM50.
- The excess RM50 is credited towards the tenant's next month's rent.

2. System Update:

- The system updates the tenant's account to reflect a RM50 credit.
- The system reduces the next month's rent payment by the credited amount.

3. Next Month's Rent Payment:

- The tenant's next month's rent of RM300 is reduced by the RM50 credit.
- The tenant only needs to pay the remaining RM250.

4. Notification:

- The tenant receives a notification about the credit and the adjusted next month's rent amount.

2. Scenario: Tenant Pays 2 Months in Advance

Example:

- Monthly rent: RM300
- Tenant wants to pay for 2 months: RM600

Process:

Advance Payment Handling:

1. Payment:

- The tenant makes a payment of RM600.
- The system allocates RM300 for the current month's rent.
- The remaining RM300 is credited towards the next month's rent.

2. System Update:

- The system updates the tenant's account to reflect the RM300 credit for the next month.

3. Next Month's Rent Payment:

- When the next month arrives, the system automatically applies the RM300 credit to cover the rent.
- No additional payment is required from the tenant for the next month.

4. Notification:

- The tenant receives a notification confirming the payment allocation for the current and next month.

3. System Sets Room/Bed Prices and Agent Closes Deals

Scenario:

- **Requirement:** The system sets the minimum monthly rental price for rooms and beds, and agents can close deals at or above this price.
- **Example:**
 - The system sets a room's minimum monthly rental at RM250, but the agent successfully closes the deal at RM300.

Process:

- 1. System Sets Price:**
 - The system sets the minimum monthly rental price for each room or bed.
- 2. Agent Closes Deal:**
 - Agents can close deals at or above the minimum monthly rental price set by the system.
- 3. Validation:**
 - When an agent closes a deal, the system checks if the closed deal price meets or exceeds the minimum required rental amount.
- 4. Recording Price:**
 - The closed deal price is recorded in the system, and the room/bed is listed at this price.
- 5. Adjustment:**
 - Agents have the flexibility to close deals at higher prices to match market demand, as long as it doesn't fall below the minimum threshold set by the system.

Implementation in the System

User Interaction Flow for Overpayment and Advance Payment

Overpayment Handling:

- Tenant pays RM700 for a RM650 deposit:
 - System records the RM50 overpayment.
 - RM50 is credited to the tenant's account.
 - Tenant is notified about the RM50 credit and reduced next month's rent (RM250).

Advance Payment Handling:

- 1. Tenant pays RM600 for 2 months' rent:
 - System allocates RM300 for the current month.
 - RM300 is credited to the tenant's account for the next month.
 - Tenant is notified about the payment allocation.

Account Management Flow

1. Initial Booking and Temporary Account Creation

Step-by-Step Process:

- 1. **Agent Interaction:**
 - The agent selects a property for the tenant and makes an initial booking payment using the agent's ID.
 - The agent provides the tenant's basic information such as name, phone number, email, and initial payment amount.
- 2. **Database Actions:**
 - **Create Temporary Account:**
 - A record is created in the TemporaryTenant table with the provided tenant details and initial payment.
 - **Record Initial Payment:**
 - The initial payment is recorded in both the Payment and PaymentHistory tables.
 - The Deposit table is updated to track the deposit amount and initial payment.
- 3. **Generate Tenancy Agreement:**
 - Using the tenant data provided by the agent, the system generates a tenancy agreement.
 - The agreement includes tenant information, property details, rent amount, deposit amount, and terms and conditions.
 - The generated agreement is provided to both the tenant and agent for review and signature after half of the deposit amount has been paid.
 - The agreement is sent to the agent's email for printing and further processing.

Example Data:

TemporaryTenant Table:

TempTenantID	AgentID	TempTenantName	TempTenantPhoneNo	TempTenantEmail	InitialPaymentAmount	InitialPaymentDate	Password
T00001	A00001	John Doe	0123456789	john@example.com	150.00	2024-07-27	hashedpassword

Payment Table:

PaymentID	TempTenantID	TenantID	Amount	PaymentDate	PaymentType
P00001	T00001	NULL	150.00	2024-07-27	Deposit

PaymentHistory Table:

PaymentHistoryID	TempTenantID	TenantID	Amount	PaymentDate	PaymentType
PH0001	T00001	NULL	150.00	2024-07-27	Deposit

Deposit Table:

Deposit ID	TempTenantID	Tenant ID	UnitID	DepositAmount	PaidAmount	RemainingAmount	LastPayment Date
D00001	T00001	NULL	U0001	650.00	150.00	500.00	2024-07-27

Tenancy Agreement Data:

AgreementID	TenantName	PropertyDetails	Monthly Rent	DepositAmount	RentStartDate	RentExpiryDate	TermsAndConditions
A00001	John Doe	Room A, Bed 1, Unit 101	300.00	650.00	2024-08-01	2025-07-31	[Standard Terms]

2. Subsequent Payments

Step-by-Step Process:

- 1. **User Interaction:**
 - The tenant logs in to the system to make additional payments toward the deposit.
- 2. **Database Actions:**
 - **Record Payment:**
 - Each subsequent payment is recorded in both the Payment and PaymentHistory tables.
 - **Update Deposit Record:**
 - The Deposit table is updated with the new paid amount and the remaining balance.

Example Data:

Payment Table:

PaymentID	TempTenantID	TenantID	Amount	PaymentDate	PaymentType
P00002	T00001	NULL	200.00	2024-08-01	Deposit

PaymentHistory Table:

PaymentHistoryID	TempTenantID	TenantID	Amount	PaymentDate	PaymentType
PH0002	T00001	NULL	200.00	2024-08-01	Deposit

Deposit Table:

Deposit ID	TempTena ntID	Tenant ID	Unitl D	DepositAmo unt	PaidAmo unt	RemainingAm ount	LastPayment Date
D00001	T00001	NULL	U00 01	650.00	350.00	300.00	2024-08-01

3. Transition to Permanent Tenant

Step-by-Step Process:

1. User Interaction:
- The tenant completes the remaining deposit payment.
2. Database Actions:
- Check Full Deposit:

The system continuously checks if the full deposit amount has been paid.

Create Permanent Tenant Account:

Once the full deposit is paid, the system creates a permanent tenant entry in the Tenant table.

Update Records:

The Payment and PaymentHistory tables are updated to reflect the permanent tenant ID.

The Credit table is updated if there are any credits.

The TemporaryTenant record is marked as converted or removed.
- Example Data:
- Tenant Table:
- | Tena ntID | Uni tID | Age ntID | Tenant Name | TenantPh oneNo | TenantEma il | RentSta rtDate | RentExpi ryDate | Tenant Status | Passwor d |
|-----------|---------|----------|-------------|----------------|-------------------|----------------|-----------------|---------------|-----------------|
| PER M001 | U0 001 | A000 01 | John Doe | 01234567 89 | john@exam ple.com | 2024-08- 01 | 2025-07- 31 | TRUE | hashedpa ssword |
- Updated Payment Table:
- | PaymentID | TempTenantID | TenantID | Amount | PaymentDate | PaymentType |
|-----------|--------------|----------|--------|-------------|-------------|
| P00001 | NULL | PERM001 | 150.00 | 2024-07-27 | Deposit |

P00002	NULL	PERM001	200.00	2024-08-01	Deposit
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Updated PaymentHistory Table:

PaymentHistoryID	TempTenantID	TenantID	Amount	PaymentDate	PaymentType
PH0001	NULL	PERM001	150.00	2024-07-27	Deposit
PH0002	NULL	PERM001	200.00	2024-08-01	Deposit

Updated Credit Table:

CreditID	TempTenantID	TenantID	CreditAmount	CreditDate	Applied
C00001	NULL	PERM001	50.00	2024-07-27	FALSE
C00002	NULL	PERM001	300.00	2024-08-01	FALSE

Updated TemporaryTenant Table (if keeping record):

TempTenantID	AgentID	TempTenantName	TempTenantPhoneNo	TempTenantEmail	InitialPaymentAmount	InitialPaymentDate	Password	Converted
T00001	A00001	John Doe	0123456789	john@example.com	150.00	2024-07-27	hashedpassword	TRUE

Summary

This updated structure ensures that:

- The system sets the minimum monthly rental price for rooms and beds.
- Agents handle the closing of deals at or above the minimum price.
- Temporary accounts are created upon the initial payment.
- Tenancy agreements are generated using the data provided by the agent during the initial booking.
- The generated agreement is provided to both the tenant and agent for review and signature after half of the deposit amount has been paid, and it is sent to the agent's email for printing.
- Overpayments and advance payments are managed with credits applied to future payments.
- The system transitions temporary accounts to permanent accounts once the full deposit is paid.
- All payments and credits are tracked in detail, ensuring transparency and accuracy.
- Agents are responsible for reminders and assistance.