transaction_history

id	integer
user_id	integer NN
transaction_id	integer
transaction_type	transaction_type E NN
amount	decimal(15,2) NN
balance_before	decimal(15,2) NN
balance_after	decimal(15,2) NN
description	text
status	history_status E NN
created_at	timestamp

users

id	integer
username	varchar(50) NN
password_hash	varchar(255) NN
full_name	varchar(100) NN
phone	varchar(20) NN
email	varchar(100) NN
balance	decimal(15,2)
is_active	boolean
created_at	timestamp
updated_at	timestamp

sessions

id	integer
user_id	integer NN
token	varchar(255) NN
ip_address	varchar(45)
user_agent	text
expires_at	timestamp NN
created_at	timestamp
last_activity	timestamp

otp_codes

id	integer
transaction_id	integer NN
otp_code	varchar(6) NN
email	varchar(100) NN
expires_at	timestamp NN
is_used	boolean
attempts	integer
created_at	timestamp

transactions

id	integer
transaction_code	varchar(50) NN
payer_id	integer NN
student_id	varchar(20) NN
amount	decimal(15,2) NN
status	transaction_status E NN
created_at	timestamp
completed_at	timestamp

email_logs

id	integer
transaction_id	integer
recipient_email	varchar(100) NN
email_type	email_type E NN
subject	varchar(255)
status	email_status E NN
sent_at	timestamp

transaction_locks

id	integer
resource_type	lock_resource_type E NN
resource_id	varchar(50) NN
transaction_id	integer NN
locked_at	timestamp
expires_at	timestamp NN

students

id	integer
student_id	varchar(20) NN
full_name	varchar(100) NN
tuition_amount	decimal(15,2) NN
is_paid	boolean
academic_year	varchar(20) NN
semester	integer NN
due_date	date NN
created_at	timestamp
updated_at	timestamp

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transaction_history

id 🔗	integer
user_id 🔗	integer NN
transaction_id 🔗	integer
transaction_type	transaction_type E NN
amount	decimal(15,2) NN
balance_before	decimal(15,2) NN
balance_after	decimal(15,2) NN
description	text
status	history_status E NN
created_at	timestamp

users

id 🔗	integer
username	varchar(50) NN
password_hash	varchar(255) NN
full_name	varchar(100) NN
phone	varchar(20) NN
email	varchar(100) NN
balance	decimal(15,2)
is_active	boolean
created_at	timestamp
updated_at	timestamp

sessions

id 🔗	integer
user_id 🔗	integer NN
token	varchar(255) NN
ip_address	varchar(45)
user_agent	text
expires_at	timestamp NN
created_at	timestamp
last_activity	timestamp

otp_codes

id 🔗	integer
transaction_id 🔗	integer NN
otp_code	varchar(6) NN
email	varchar(100) NN
expires_at	timestamp NN
is_used	boolean
attempts	integer
created_at	timestamp

transactions

id 🔗	integer
transaction_code	varchar(50) NN
payer_id 🔗	integer NN
student_id 🔗	varchar(20) NN
amount	decimal(15,2) NN
status	transaction_status E NN
created_at	timestamp
completed_at	timestamp

email_logs

id 🔗	integer
transaction_id 🔗	integer
recipient_email	varchar(100) NN
email_type	email_type E NN
subject	varchar(255)
status	email_status E NN
sent_at	timestamp

transaction_locks

id 🔗	integer
resource_type	lock_resource_type E NN
resource_id	varchar(50) NN
transaction_id 🔗	integer NN
locked_at	timestamp
expires_at	timestamp NN

students

id 🔗	integer
student_id	varchar(20) NN
full_name	varchar(100) NN
tuition_amount	decimal(15,2) NN
is_paid	boolean
academic_year	varchar(20) NN
semester	integer NN
due_date	date NN
created_at	timestamp
updated_at	timestamp

```
Enum transaction_status {
    pending
    otp_sent
    otp_verified
    completed
    failed
    expired
}


Enum transaction_type {
    payment
    deposit
    withdrawal
    transfer
}


Enum history_status {
    success
    failed
}


Enum email_type {
    otp
    confirmation
    receipt
}


Enum email_status {
    sent
    failed
}
```

```
Enum lock_resource_type {
    user_account
    student_tuition
}
```