Retail SaaS System - Database Tables

# Shop Registration & Table Strategy

When a shop is registered, instead of creating a separate database for each shop, the system uses a shared database with tenant-specific tables. Each core table includes a 'shop\_id' column to ensure multi-tenancy. This is the industry-recommended and scalable approach.  
  
However, if truly separate tables per shop are required (which is not scalable in the long run), then you'd dynamically create tables like 'products\_shop\_1', 'bills\_shop\_1', etc., on shop registration. That approach is only suggested for offline, isolated systems.

## shops Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| Owner\_id |  |  |
| id | BIGINT (PK) | Shop ID |
| name | VARCHAR(255) | Shop name |
| email | VARCHAR(255) | Contact email |
| phone | VARCHAR(50) | Phone number |
| address | TEXT | Shop address |
| logo | VARCHAR | Optional image/logo |
| plan | VARCHAR(50) | Subscription plan |
| Currency |  |  |
| Colors1 |  |  |
| status | ENUM | active/inactive/suspended |
| created\_at | TIMESTAMP | Created timestamp |
| updated\_at | TIMESTAMP | Updated timestamp |

## Users Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | User ID |
| shop\_id | BIGINT (FK) | Associated shop |
| name | VARCHAR(255) | Full name |
| email | VARCHAR(255) | Email for login |
| password | VARCHAR(255) | Hashed password |
| phone | VARCHAR(50) | Phone number |
| Salary |  |  |
| CNIC |  |  |
| role | ENUM | owner/employee/admin |
| status | ENUM | active/inactive |
| created\_at | TIMESTAMP | Created time |
| updated\_at | TIMESTAMP | Updated time |

## products Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | Product ID |
| shop\_id | BIGINT (FK) | Related shop |
| name | VARCHAR(255) | Product name |
| brand | VARCHAR(255) | Brand name |
| category | VARCHAR(255) | Category |
| size | VARCHAR(100) | Product size |
| sku | VARCHAR(100) | Stock Keeping Unit |
| barcode | VARCHAR(100) | Barcode (optional) |
| quantity | INT | Stock quantity |
| min\_stock\_alert | INT | Low stock alert level |
| buying\_price | DECIMAL(10,2) | Buying cost |
| selling\_price | DECIMAL(10,2) | Selling price |
| tax\_percent | DECIMAL(5,2) | Tax percentage |
| status | ENUM | active/inactive |
| created\_by | BIGINT (FK) | User who added it |
| created\_at | TIMESTAMP | Timestamp |
| updated\_at | TIMESTAMP | Timestamp |

## bills Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | Bill ID |
| shop\_id | BIGINT (FK) | Shop |
| bill\_number | VARCHAR | Unique bill number |
| customer\_name | VARCHAR | Customer name |
| customer\_phone | VARCHAR | Customer phone |
| subtotal | DECIMAL(10,2) | Subtotal |
| discount | DECIMAL(10,2) | Discount |
| tax | DECIMAL(10,2) | Tax |
| total\_amount | DECIMAL(10,2) | Total amount |
| paid\_amount | DECIMAL(10,2) | Amount paid |
| due\_amount | DECIMAL(10,2) | Amount due |
| payment\_method | VARCHAR | Payment method |
| created\_by | BIGINT (FK) | User |
| created\_at | TIMESTAMP | Timestamp |

## bill\_items Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | ID |
| bill\_id | BIGINT (FK) | Related bill |
| product\_id | BIGINT (FK) | Product |
| product\_name | VARCHAR | Name (for history) |
| quantity | INT | Quantity sold |
| unit\_price | DECIMAL(10,2) | Price per unit |
| Discount |  |  |
| total\_price | DECIMAL(10,2) | Total |

## User\_salaries Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | ID |
| user\_id | BIGINT (FK) | Employee |
| month | VARCHAR(7) | Month (e.g. 2025-08) |
| amount | DECIMAL(10,2) | Amount paid |
| paid\_on | DATE | Paid on |
| status | ENUM | paid/unpaid |
| notes | TEXT | Optional notes |
| created\_at | TIMESTAMP | Created time |

## User\_loans Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| Id | BIGINT (PK) | ID |
| employee\_id | BIGINT (FK) | Employee |
| amount | DECIMAL(10,2) | Loan amount |
| taken\_on | DATE | Loan date |
| reason | TEXT | Reason |
| status | ENUM | paid/unpaid/partial |
| installment | DECIMAL(10,2) | Monthly installment |
| due\_amount | DECIMAL(10,2) | Remaining |
| notes | TEXT | Optional |
| created\_at | TIMESTAMP | Created time |

## Subscribtion Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | ID |
| shop\_id | BIGINT (FK) | Shop |
| plan\_name | VARCHAR(255) | Basic, PRO |
| Price | DECIMAL(10,2) | Loan amount |
| Started\_ar | DATE | Taken date |
| Expires-at | DATE | Due date |
| status | ENUM | paid/unpaid/partial |
| Payment\_method | DECIMAL(10,2) | Paid till now |
| created\_at | TIMESTAMP | Created time |

## Active\_log\_user Table

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| id | BIGINT (PK) | ID |
| user\_id | BIGINT (FK) | Shop |
| action | VARCHAR(255) |  |
| Action\_type | DECIMAL(10,2) | Edit/delete/upload |
| created\_at | TIMESTAMP | Created time |