The Evolution of the df_ticketing Database

An Infographic on Schema Changes from April to June 2025

Pre-April 2025: The Initial Schema

As of the base database dump (May 9, 2025), and accounting for subsequent explicit creation dates, the `df_ticketing` system began with a robust set of core tables forming its fundamental structure.

Tables Present Before April 15, 2025

51

These 51 tables, including foundational entities like `users`, `roles`, `tickets`, `ledgers`, and `master_status`, were the backbone of the `df_ticketing` system prior to the major documented changes.

Foundational Modules

- **User Management:** `users`, `roles`, `user_roles`, `login_details`, `user_history`.
- **Organizational Structure:** `organization`, `entities`, `departments`, `sub_departments`, `cost_center`.
- **Ticketing & Expense Core:** `tickets`, `ticket_history`, `ticket_logs`, `expense_category`, `bills`, `re_ticket_details`, `reimbursement_history`, `adv_ticket_details`, `pro_ticket_details`, `travels`, `accommodation`, `food`, `vehicles`.
- **Financial Ledgers:** `ledgers`, `categories`.
- **System Configuration:** `master_status`, `levels`, `menus`, `payment_mode`, `payment_route`.
- **HR & Employee Data:** `employees`, `employee_history`, `pf_details`.
- **Reporting:** `reports`, `report_history`, `report_logs`.
- **Banking:** `user_bank`, `vendors`, `vendor_bank`.
- **Academic Modules:** `academic_year`, `academic_entity`, `academic_organization`, `academic_cost_center`, `academic_expense_category`.

This list highlights the comprehensive nature of the initial database, indicating a system designed from the outset to handle various aspects of organizational operations.

Phase 1: New Creations (April 2025)

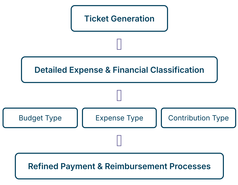
April 2025 marked the beginning of documented schema enhancements with the introduction of new tables designed to add more specific financial and organizational classifications.

New Tables Created in April

6

These include `budget_type`, `expense`, `contribution_type`, `reimb_others` (April 15), `organization_bank`, and `payment_type` (April 21).

Initial Data Flow with New Additions

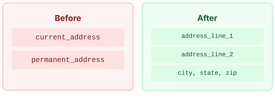


This flow demonstrates how the newly introduced tables integrate into the core processes, enabling more granular categorization of financial transactions.

Phase 2: Hardening & Enrichment (Late April - May 2025)

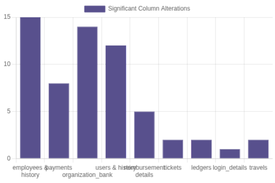
This phase focused on refining the data model for greater detail, consistency, and integrity. Changes involved making structures more granular and adding constraints to prevent bad data.

Address Field Expansion



The `employees` and `employee_history` tables were updated to capture more detailed address information, a typical sign of a maturing application requiring more specific user data.

Key Table Alterations (Selected Focus)



A Bar Chart showing the number of significant columns added or modified in key tables, highlighting the focus on enriching the data model during this period.

Database Schema Refinements

Beyond just adding new columns, this phase involved extensive modifications to existing tables to enhance data capacity and structure.

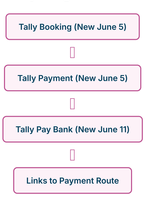
- **Expanded VARCHAR Lengths:** Numerous columns across `employees`, `employee_history`, `users`, `user_history`, `user_bank`, `vendor_bank`, and `travels` saw increased `VARCHAR` lengths for fields like names, emails, job titles, and bank details, accommodating more diverse and longer data entries. The `organization_bank` table also saw significant additions and renames, including client code and bank contact details.
- **Transient Tables:** The `bill_history` and `edit_history` tables were subject to creation and subsequent drops within this period (as per commented out sections in the SQL log), indicating iterative development and potential restructuring of how historical data or billing information was managed.
- **New Table:** `role_actions` was created (May 23) to manage permissions more granularly.

Unicode pictographs illustrate the addition of `UNIQUE` constraints to critical tables (`reports`, `tickets`, `payments`) on May 3, preventing duplicate entries and ensuring system reliability.

Phase 3: Enterprise Integration (June 2025)

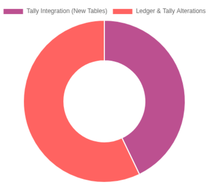
The final phase recorded in the log marks a significant step: connecting the df_ticketing system to external enterprise software, specifically for Tally accounting integration.

Tally Integration Flow



This diagram, styled with HTML, shows the new tables and relationships introduced to facilitate communication with the Tally accounting system.

Focus of June's Changes



A Donut Chart illustrating that the overwhelming majority of development effort in June was dedicated to building out the Tally integration features, including data cleanup in `ledgers`.

Project Trajectory Summary

A high-level view of the schema modifications across the entire period, showing the types of changes that dominated each month of development.

Total Schema Changes (April - June 2025)

This stacked bar chart provides a cumulative overview of the project's evolution, from foundational work to feature enrichment and finally to integration, as reflected by the database changes.

Infographic generated on June 16, 2025.

This infographic was dynamically generated based on SQL change logs and schema dumps. All charts are rendered using the Canvas API via Chart.js. All diagrams are created with structured HTML and Tailwind CSS. No SVG or Mermaid JS was used in this output.