

Anesoft Anesthesia Simulator

Database Architecture & Documentation

Database Overview

The Anesthesia Simulator uses a relational database structure to manage user accounts, training content, licensing, group memberships, and system configuration. It supports a multi-tiered access system with users, administrators, and group-based permissions.

Database Summary

Total Tables: 29 active tables + 6 backup tables

Core Functions

- **User Management:** wp_users, wp_usermeta, user_id_mapping_users_table
- **Group Control:** wp_groups, wp_groupusers_data (institutional access)
- **Licensing:** wp_features, wp_pro_status_history (subscription management)
- **Content:** wp_posts, wp_postmeta, wp_comments (training materials)
- **Custom Fields:** wp_cimy_uef_* tables (extended user data)
- **System Config:** wp_options, wp_settings, wp_login_redirects

Key Relationships

User → Group Membership → Feature Access → Content Access

Business Model Support

- Individual user accounts and institutional groups
- Pro licensing with historical tracking
- Feature-based access control for tiered pricing
- Custom fields for specialized medical training data

Data Protection

Multiple dated backup tables (20250405, 20250407) with migration mapping for system upgrades.

Architecture

Supports scalable growth from individual users to large medical institutions with comprehensive audit trails for educational compliance.

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1. Table Categories

1.1 User Management System

wp_users (Primary User Table)

Purpose: Central repository for all user accounts in the system

- **ID:** Auto-incrementing primary key (bigint)
- **user_login:** Unique username for authentication (varchar 60)
- **user_pass:** Encrypted password hash (varchar 255)
- **user_nicename:** URL-friendly version of username (varchar 50)
- **user_email:** User's email address (varchar 100)
- **user_url:** Optional user website (varchar 100)
- **user_registered:** Account creation timestamp (datetime)
- **user_activation_key:** Account activation token (varchar 60)
- **user_status:** Account status flag (int)
- **display_name:** Public display name (varchar 250)
- **first_name:** User's first name (varchar 60)
- **last_name:** User's last name (varchar 60)
- **user_group:** Group assignment identifier (varchar 60)
- **user_data:** Additional user data field (varchar 60)
- **is_admin:** Administrator privilege flag (int)

wp_usermeta (Extended User Properties)

Purpose: Stores additional user preferences, settings, and metadata

- **umeta_id:** Auto-incrementing metadata ID
- **user_id:** Foreign key to wp_users.ID

- **meta_key:** Property name identifier
- **meta_value:** Property value (longtext)

user_id_mapping_users_table (Migration Support)

Purpose: Maps old user IDs to new user IDs during system migrations

- **old_user_id:** Previous system user identifier
- **new_user_id:** Current system user identifier
- **user_email:** Email address for verification

table (Legacy Placeholder)

Purpose: Empty table structure - appears to be unused legacy component

- Contains user table structure but no active data

1.2 Group Management System

wp_groups (Group Definitions)

Purpose: Defines organizational groups for educational institutions

- **group_id:** Primary group identifier
- **group_name:** Group display name
- **group_description:** Group purpose description
- **group_capabilities:** Permission settings for group members
- **group_parent:** Hierarchical parent group reference

wp_groupusers_data (Group Membership)

Purpose: Links users to their assigned groups with role information

- **user_id:** Foreign key to wp_users.ID
- **group_id:** Foreign key to wp_groups.group_id
- **capability:** User's role within the group

- **date_created:** Membership creation date

Backup Tables:

- **wp_groups_backup20250405:** Historical group data snapshot
- **wp_groupusers_data_backup20250405:** Historical membership snapshot
- **wp_groupusers_data_bak:** Additional membership backup
- **wp_groupusers_data_migrated:** Migration tracking data
- **wp_groupusers_missing_data:** Data recovery reference

1.3 Licensing & Feature Management

wp_features (Feature Control)

Purpose: Controls which features are available to users and groups

- **feature_id:** Unique feature identifier
- **feature_name:** Feature display name
- **feature_type:** Category or classification
- **is_enabled:** Global feature availability flag
- **license_required:** Whether feature requires pro license

wp_pro_status_history (License Tracking)

Purpose: Maintains historical record of pro license status changes

- **user_id:** Foreign key to wp_users.ID
- **status:** Pro license status (active/inactive/expired)
- **date_changed:** When status was modified
- **changed_by:** Administrator who made the change
- **notes:** Additional information about status change

wp_settings (System Configuration)

Purpose: Global system settings and configuration parameters

- **setting_name:** Configuration parameter name
- **setting_value:** Parameter value
- **autoload:** Whether setting loads automatically
- **setting_type:** Data type classification

1.4 Custom Fields System

wp_cimy_uef_fields (Field Definitions)

Purpose: Defines custom user profile fields beyond standard user data

- **ID:** Field definition identifier
- **F_ORDER:** Display order for fields
- **FIELDSET:** Grouping classification
- **NAME:** Internal field name
- **LABEL:** Display label for users
- **DESCRIPTION:** Field purpose explanation
- **TYPE:** Data type (text, select, checkbox, etc.)
- **RULES:** Validation rules and constraints

wp_cimy_uef_data (Custom Field Values)

Purpose: Stores actual values for custom user fields

- **ID:** Data record identifier
- **USER_ID:** Foreign key to wp_users.ID
- **FIELD_ID:** Foreign key to wp_cimy_uef_fields.ID

- **VALUE:** Actual field data (text)

wp_cimy_uef_wp_fields (Field Configuration)

Purpose: Configuration mapping between custom fields and system integration

- Links custom fields to system processes and display locations

1.5 Content Management System

wp_posts (Content Storage)

Purpose: Stores training content, announcements, and system messages

- **ID:** Unique post identifier
- **post_author:** Foreign key to wp_users.ID
- **post_date:** Content creation timestamp
- **post_content:** Main content body (longtext)
- **post_title:** Content title
- **post_excerpt:** Brief content summary
- **post_status:** Publication status (published/draft/private)
- **post_type:** Content classification
- **post_parent:** Hierarchical parent reference
- **menu_order:** Display ordering

wp_postmeta (Content Metadata)

Purpose: Extended properties for posts and content

- **meta_id:** Metadata record identifier
- **post_id:** Foreign key to wp_posts.ID
- **meta_key:** Property identifier
- **meta_value:** Property value (longtext)

1.6 User Interaction System

wp_comments (User Comments)

Purpose: Stores user comments on training content and discussions

- **comment_ID:** Unique comment identifier
- **comment_post_ID:** Foreign key to wp_posts.ID
- **comment_author:** Commenter name
- **comment_author_email:** Commenter email
- **comment_author_url:** Commenter website
- **comment_author_IP:** IP address for moderation
- **comment_date:** Comment timestamp
- **comment_content:** Comment text (text)
- **comment_approved:** Moderation status
- **comment_agent:** Browser/client information
- **comment_type:** Comment classification
- **comment_parent:** Reply threading reference
- **user_id:** Foreign key to wp_users.ID for registered users

wp_commentmeta (Comment Metadata)

Purpose: Extended properties for comments

- **meta_id:** Comment metadata identifier
- **comment_id:** Foreign key to wp_comments.comment_ID
- **meta_key:** Property name
- **meta_value:** Property value (longtext)

1.7 Taxonomy & Organization

wp_terms (Organizational Terms)

Purpose: Defines categories, tags, and classification terms

- **term_id:** Unique term identifier
- **name:** Term display name

- **slug:** URL-friendly term identifier
- **term_group:** Grouping classification

wp_term_taxonomy (Taxonomy Definitions)

Purpose: Defines how terms are organized and categorized

- **term_taxonomy_id:** Unique taxonomy identifier
- **term_id:** Foreign key to wp_terms.term_id
- **taxonomy:** Taxonomy type (category, tag, custom)
- **description:** Taxonomy purpose explanation
- **parent:** Hierarchical parent reference
- **count:** Number of associated objects

wp_term_relationships (Content Classification)

Purpose: Links content to taxonomical terms

- **object_id:** Foreign key to classified object
- **term_taxonomy_id:** Foreign key to wp_term_taxonomy
- **term_order:** Display order within taxonomy

1.8 System Configuration & Options

wp_options (Global Settings)

Purpose: System-wide configuration parameters and settings

- **option_id:** Unique option identifier
- **option_name:** Setting parameter name
- **option_value:** Setting value (longtext)
- **autoload:** Whether option loads on system startup

wp_links (External References)

Purpose: Manages external links and references

- **link_id:** Unique link identifier
- **link_url:** Target URL
- **link_name:** Link display name
- **link_description:** Link purpose description
- **link_visible:** Public visibility flag
- **link_owner:** Owner user reference
- **link_rating:** Quality rating
- **link_rel:** Link relationship type

1.9 Authentication & Security

wp_login_redirects (Login Flow Control)

Purpose: Manages post-login redirect behavior for different user types

- **redirect_id:** Unique redirect rule identifier
- **user_type:** Target user classification
- **redirect_url:** Destination URL after login
- **conditions:** Rules for when redirect applies
- **is_active:** Whether rule is currently enabled

1.10 Data Backup & Migration

User Backup Tables:

- **wp_users_backup:** Complete user table snapshot
- **wp_users_backup20250405:** Date-specific user backup
- **wp_users_backup20250407:** Additional user backup
- **wp_users_migrated:** Migration completion tracking

2. Database Relationships & Data Flow

2.1 User Authentication Flow:

1. User credentials validated against wp_users table
2. Additional user properties loaded from wp_usermeta
3. Group membership determined via wp_groupusers_data
4. Feature access controlled by wp_features and wp_pro_status_history
5. Login redirect handled by wp_login_redirects

2.2 Content Access Control:

1. Content stored in wp_posts with metadata in wp_postmeta
2. Content categorized using wp_terms, wp_term_taxonomy, and wp_term_relationships
3. User access determined by group membership and feature licensing
4. User interactions tracked via wp_comments system

2.3 Group Management Workflow:

1. Groups defined in wp_groups with hierarchical structure
2. Users assigned to groups via wp_groupusers_data
3. Group capabilities control feature access
4. Pro status tracked historically in wp_pro_status_history

NOTE: Despite being named with wp_ prefix, the app does not use WordPress at all.

4. MySQL Databases & Users

MySQL Databases: One is your live production database (the one the site actively uses). The others are from previous configurations, testing environments, wordpress installations, and marketing storage. Only one matters for daily operations; the rest can stay there indefinitely without causing issues in case they are ever needed for reference. No one can access them but you and the developer.

- anesoft_anes_8y9b6 - marketing storage for a wordpress plugin on anesoft.com
- anesoft_anes_50mkm - the wordpress database for anesoft.com
- anesoft_anes_50mkm_backup - backup database for anesoft.com
- anesoft_c89nl6wlzb9 - old database for the app (app.anesoft.com)
- anesoft_c89nl6wlzb9_new - new (current) database for the app (app.anesoft.com)
- anesoft_vet9ajd38nd - database for the vet app (vet.anesoft.com)

MySQL Users: These are system-level database credentials. They control which applications can read/write to which databases. This is completely different from your site's user accounts. They are configured correctly and you won't need to touch them. As for passwords, they are stored in the config files for the respective apps.

- anesoft_anes_50mkm - allows wordpress database to operate
- anesoft_anes_8y9b6 - allows wordpress marketing plugin to operate
- anesoft_c89nl6wlzb9 - allows the app to access and store data to the database