Database model documentation

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1. Model details

Model name:

Padelix Indonesia PDM

Version:

2.4

Database engine:

MySQL

Description:

2. Tables

2.1. Table roles

Description:

Defines groups of permissions (e.g., Admin, Editor, Viewer).

2.1.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
name	varchar(50)		Human-readable name of the role.
description	varchar(255)	null	Explanation of what users with this role can do.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.1.2. Alternate keys

Key name	Columns	Description
roles_uq_name	name	Unique Role Name

2.2. Table permissions

2.2.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
slug	varchar(50)		Unique machine-readable string for code-level checks (e.g., im:product:write).
description	varchar(255)	null	Context for what the specific permission allows.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.2.2. Alternate keys

Key name	Columns	Description
permissions_uq_slug	slug	Unique Permission Slug

2.3. Table users

Description:

Stores user credentials and account status for administrative access to the system.

2.3.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
is_active	boolean		Flag to enable or suspend account access.
username	varchar(50)		Unique login name.
email	varchar(100)		Primary contact and unique identifier for communication.
password_hash	varchar(255)		Securely salted and hashed password string.
last_login	datetime		Timestamp of the most recent successful authentication.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.3.2. Alternate keys

Key name	Columns	Description
users_uq_username	username	Unique User Username
users_uq_email	email	Unique User Email

2.4. Table audit_logs

Description:

Immutable record of sensitive actions taken within the system for security and troubleshooting.

2.4.1. Columns

Column name	Type	Properties	Description
id	bigint	PK	unique primary identifier.

user_id	int	null	The user who performed the action.
entity_id	int	null	ID of the affected record (e.g., the Product ID).
username_snapshot	varchar(50)		Captures the username at the time of action (in case user is deleted).
action	varchar(50)		Verb describing the event (e.g., "LOGIN", "UPDATE_PRODUCT").
ip_address	varchar(45)	null	Network origin of the request.
user_agent	varchar(255)	null	The platform it uses for the action
details	text	null	JSON or text blob containing the "before" and "after" state of the data.
created_at	datetime		Standard audit timestamps.

2.5. Table brands

Description:

Manufacturers or brands of the products.

2.5.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
name	varchar(50)		Official name of the manufacturer or brand
slug	varchar(50)		URL-friendly unique identifier.
logo_url	varchar(255)	null	Absolute path to the logo's image (Storage or Public).
website	varchar(255)		The official manufacturers' or brands' website
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.5.2. Alternate keys

Key name	Columns	Description
brand_uq_name	name	Unique Brand Names
brands_uq_slug	slug	Unique Brand Slug

2.6. Table categories

Description:

Hierarchical taxonomy for products.

2.6.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
parent_id	int	null	Self-reference to allow nested sub-categories.
name	varchar(50)		Diffrentieable name of the Category
slug	varchar(50)		URL-friendly unique identifier.
image_url	varchar(255)		Absolute path to the category's thumbnail image (Storage or Public).
description	text		Detailed Descriptiton of the category
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.6.2. Alternate keys

Key name	Columns	Description
categories_uq_name	name	Unique Category Name
categories_uq_slug	slug	Unique Category Slug

2.7. Table products

Description:

The core catalog entity representing a saleable or displayable item.

2.7.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
created_by	int	null	Reference to the user

			who added the product.
`brand_id`	`int`	`null`	Foreign keys for organization.
`category_id`	`int`	`null`	Foreign keys for organization.
`name`	`varchar(150)`		Commercial name of the product.
`slug`	`varchar(150)`		URL-friendly unique identifier.
`is_featured`	`boolean`		If true, the item appears in homepage highlights.
`is_active`	`boolean`		Controls visibility on the public frontend.
`description`	`longtext`	`null`	Detailed marketing text (HTML/Markdown supported).
`base_price`	`decimal(10,2)`		Starting price before variant adjustments.
`created_at`	`datetime`		Standard audit timestamps.
`updated_at`	`datetime`		Standard audit timestamps.

2.7.2. Alternate keys

Key name	Columns	Description
`products_uq_name`	`name`	`Unique Product Name`
`products_uq_slug`	`slug`	`Unique Product Slug`

2.8. Table product_variants

Description:

Specific versions of a product (e.g., different sizes or materials).

2.8.1. Columns

Column name	Type	Properties	Description
`id`	`int`	PK	unique primary identifier.
`product_id`	`int`		Reference to the product that have the variant.
`is_active`	`boolean`		Controls visibility on the public frontend.
`name`	`varchar(100)`		Commercial name of the variant.
`sku`	`varchar(50)`	`null`	Stock Keeping Unit (Unique

			barcode/identifier)
price_adjustment	decimal(10,2)		Amount added to or subtracted from the product's base price.
stock_quantity	decimal(10,2)		Current inventory level.
is_unlimited_stock	boolean		Flag for items that don't track physical inventory counts.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.9. Table product_images

Description:

> Visual assets associated with a product.

2.9.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
product_id	int		Reference to the product that have the image.
is_primary	boolean		If true, this is the main image used in thumbnails.
image_url	varchar(255)		Absolute path to the image (Storage or Public).
alt_text	varchar(150)	null	Image's alt text
sort_order	int		Controls the sequence in the image gallery.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.10. Table product_specifications

Description:

> Flexible key-value pairs for technical data (e.g., "Weight": "10kg").

2.10.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
product_id	int		Reference to the product that have the image.
spec_key	varchar(100)		Specification's key
spec_value	varchar(50)	null	Specification's value
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.11. Table portfolios

Description:

Records of completed projects, court installations, or case studies.

2.11.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
created_by	int	null	Reference to the user who documented the project.
title	varchar(150)		Name of the project.
slug	varchar(150)		URL-friendly unique identifier.
location	varchar(100)	null	Physical area where the project was completed (e.g., "Jakarta").
is_featured	boolean		Controls visibility in the "Featured Projects" section.
is_active	boolean		Controls visibility on the public frontend.
description	longtext	null	Detailed documentation text (HTML/Markdown supported).
completion_date	date	null	The date the project was finalized.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.11.2. Alternate keys

Key name	Columns	Description
portfolios_uq_title	title	Unique Project Title
portfolios_uq_slug	slug	Unique Project Slug

2.12. Table portfolio_images

Description:

Gallery of photos showcasing the specific portfolio project.

2.12.1. Columns

Column name	Type	Properties	Description
id	int	PK	unique primary identifier.
portfolio_id	int		Reference to the portofolio that have the image.
is_primary	boolean		If true, this is the main image used in thumbnails.
image_url	varchar(255)		Absolute path to the image (Storage or Public).
alt_text	varchar(150)	null	Image's alt text
sort_order	int		Controls the sequence in the image gallery.
created_at	datetime		Standard audit timestamps.
updated_at	datetime		Standard audit timestamps.

2.13. Table users_roles

Description:

Bridge tables between users and roles (Many-to-Many).

2.13.1. Columns

Column name	Type	Properties	Description
users_id	int	PK	unique primary identifier.
roles_id	int	PK	unique primary identifier.
assigned_at	datetime		Standard audit timestamps.

2.14. Table roles_permissions

Description:

      Bridge tables between roles and permissions (Many-to-Many).

2.14.1. Columns

Column name	Type	Properties	Description
roles_id	int	PK	unique primary identifier.
permissions_id	int	PK	unique primary identifier.
granted_at	datetime		

3. References

3.1. Reference audit_logs_users

Description:

Maps users to none or more audit_logs (One-to-Many).

users	0..*	audit_logs
id	<->	user_id

3.2. Reference products_brands

Description:

Maps brands to none or more products (One-to-Many).

brands	0..*	products
id	<->	brand_id

3.3. Reference products_categories

Description:

Maps categories to none or more products (One-to-Many).

categories	0..*	products
id	<->	category_id

3.4. Reference product_variants_products

Description:

Maps products to none or more product_variants (One-to-Many).

products	0..*	product_variants
id	<->	product_id

3.5. Reference product_images_products

Description:

Maps products to none or more product_images (One-to-Many).

products	0..*	product_images
id	<->	product_id

3.6. Reference product_specifications_products

Description:

Maps products to none or more product_specification (One-to-Many).

products	0..*	product_specifications
id	<->	product_id

3.7. Reference products_users

Description:

Maps users to none or more products (One-to-Many).

users	0..*	products
id	<->	created_by

3.8. Reference portfolios_users

Description:

Maps users to none or more portfolios (One-to-Many).

users	0..*	portfolios
id	<->	created_by

3.9. Reference portfolio_images_portfolios

Description:

Maps portfolios to none or more portfolio_images (One-to-Many).

portfolios	0..*	portfolio_images
id	<->	portfolio_id

3.10. Reference categories_parent_categories

Description:

Maps categories to none or one parent products (One-to-One).

categories	0..1	categories
id	<->	parent_id

3.11. Reference users_users_roles

Description:

Maps users to none or more roles (Many-to-Many).

users	0..*	users_roles

id	<->	users_id

3.12. Reference roles_users_roles

Description:

    Maps roles to none or more users (Many-to-Many).

roles	0..*	users_roles
id	<->	roles_id

3.13. Reference roles_permissions_roles

Description:

    Maps roles to none or more permissions (Many-to-Many).

roles	0..*	roles_permissions
id	<->	roles_id

3.14. Reference roles_permissions_permissions

Description:

    Maps permissions to none or more roles (Many-to-Many).

permissions	0..*	roles_permissions
id	<->	permissions_id

4. Areas

4.1. Role-Based Access Control (RBAC) subject area

4.1.1. Tables

- roles
- permissions
- users
- users_roles
- roles_permissions

4.1.2. References

- audit_logs_users
- products_brands
- products_categories
- product_variants_products
- product_images_products
- product_specifications_products
- products_users
- portfolios_users
- portfolio_images_portfolios
- categories_parent_categories
- users_users_roles
- roles_users_roles
- roles_permissions_roles
- roles_permissions_permissions

4.2. Inventory & Catalog Management (ICM) subject area

4.2.1. Tables

- brands
- categories
- products
- product_variants
- product_images
- product_specifications

4.2.2. References

- audit_logs_users
- products_brands
- products_categories
- product_variants_products
- product_images_products
- product_specifications_products

- products_users
- portfolios_users
- portfolio_images_portfolios
- categories_parent_categories
- users_users_roles
- roles_users_roles
- roles_permissions_roles
- roles_permissions_permissions

4.3. System Administration (SA) subject area

4.3.1. Tables

- audit_logs

4.3.2. References

- audit_logs_users
- products_brands
- products_categories
- product_variants_products
- product_images_products
- product_specifications_products
- products_users
- portfolios_users
- portfolio_images_portfolios
- categories_parent_categories
- users_users_roles
- roles_users_roles
- roles_permissions_roles
- roles_permissions_permissions

4.4. Content Management (CM) subject area

4.4.1. Tables

- portfolios
- portfolio_images

4.4.2. References

- audit_logs_users
- products_brands
- products_categories
- product_variants_products
- product_images_products
- product_specifications_products
- products_users
- portfolios_users

- portfolio_images_portfolios
- categories_parent_categories
- users_users_roles
- roles_users_roles
- roles_permissions_roles
- roles_permissions_permissions