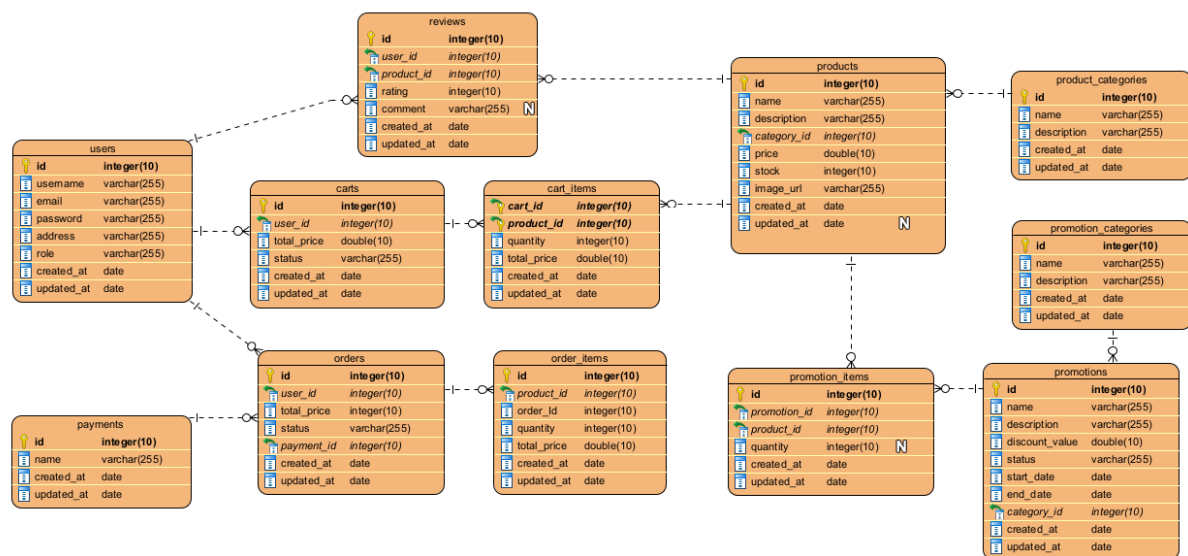# IMART Documentation Schema

Overview

IMART is an eCommerce platform that allows users to browse, purchase, and manage products online. It also provides an administrative interface for managing products, promotions, orders, and customers.

Database Schema

The following is the IMART database schema. This documentation will list all tables. Each table will be given a detailed description of the fields and example data.

Users Table

Purpose:

Stores information about registered users, including customers and administrators.

Fields:

-   id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each user.
-   username (VARCHAR(255), NOT NULL, UNIQUE): User's unique identifier.
-   email (VARCHAR(255), NOT NULL, UNIQUE): User's email address.
-   password (VARCHAR(255), NOT NULL): Hashed password for authentication.
-   address (VARCHAR(255), NULL): User's residential address.
-   role (VARCHAR(255), NOT NULL): Defines if the user is a customer or an admin.
-   created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of account creation.
-   updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

- User John (ID: 4) registered with the email john@gmail.com. He resides at Jl Kelapa Lilin Utara XV and has the role of user. His account was created on 2025-02-05 11:38:29 and last updated on 2025-02-05 11:38:29.
- User: Matthew (ID: 5) registered with the email matt@gmail.com. He resides at Jl Kelapa Lilin Utara XV and has the role of admin. His account was created on 2025-02-05 11:38:29 and last updated on 2025-02-05 11:38:29.
- User: Hanna (ID: 6) registered with the email hanna@gmail.com. She lives in Alam Sutera and has the role of user. Her account was created on 2025-02-05 11:38:29 and last updated on 2025-02-05 11:40:59.

Payments Table

Purpose:

Stores payment methods available in the system.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each payment method.
- name (VARCHAR(255), NOT NULL, UNIQUE): Name of the payment method.
- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of payment method creation.
- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update

Example Data:

- Payment: "Credit Card" (ID: 1) is a supported payment option. Added on 2025-01-15.
- Payment "PayPal" (ID: 2) is available for online transactions. Added on 2025-01-20.

Product_categories Table

Purpose:

Stores product categories to organize inventory.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each category.
- name (VARCHAR(255), NOT NULL, UNIQUE): Category name.
- description (VARCHAR(255), NOT NULL): Detailed description of the category.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of category creation.
- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Product Category: "Electronics" (ID: 1) includes products like headphones, smartphones, and laptops. Description: "Devices and gadgets for everyday use." Created on 2025-01-01.
- Product Category: "Furniture" (ID: 2) includes decorations, office furniture, and house furniture. Description: "Quality furniture for home and office spaces." Created on 2025-02-05.
- Product Category: "Fashion" (ID: 3) includes clothing, dresses, jackets, etc. Description: "Trendy and stylish fashion items for all seasons." Created on 2025-02-05.

Promotion_categories Table

Purpose:

Stores different types of promotional categories.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each promotion category.
- name (VARCHAR(255), NOT NULL, UNIQUE): Name of the promotion category.
- description (VARCHAR(255), NOT NULL): Summary of the promotion category.
- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of category creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Promotion Category: "Percentage Discounts" (ID: 1) applies discounts based on a percentage value. Description: "Product price will be cut based on the percentage discount value." Created on 2025-02-06 13:29:24.
- Promotion Category: "Fixed-Value Discount" (ID: 2) applies a specific amount off the product price. Description: "Product price will be cut based on the fixed discount value." Created on 2025-02-06 13:30:44.
- Promotion Category: "Bundle Purchase Offers" (ID: 3) provides special deals for bundled products. Description: "Offers bundle deals." Created on 2025-02-06 13:31:21.

Products Table

Purpose:

Stores details of all available products.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each product.

- name (VARCHAR(255), NOT NULL, UNIQUE): Name of the product.

- description (TEXT, NOT NULL): Detailed information about the product.

- category_id (INT, FOREIGN KEY, NOT NULL): Links to a category.

- price (DOUBLE, NOT NULL): Price of the product.

- stock (INT, NOT NULL): Available quantity.

- image_url (VARCHAR(255), NOT NULL): Link to the product image.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of product creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Product: "Wireless Mouse" (ID: 1) is priced at 200000 and falls under the Electronics category. It has 150 units in stock. Description: "A high-quality wireless mouse with ergonomic design." Added on 2025-02-05 16:01:42.
- Product: "Bluetooth Speaker X100" (ID: 2) is priced at 270000.5 and falls under the Electronics category. It has 180 units in stock. Description: "The Bluetooth Speaker X100 is designed for music lovers who want high-quality sound in a portable, stylish package." Added on 2025-02-05 16:04:34.
- Product: "REVEN LEATHER - Asgard Laptop Bag" (ID: 3) is priced at 399999.99 and falls under the Fashion category. It has 88 units in stock. Description: "Sleek and stylish genuine leather crossbody bag with adjustable strap, perfect for both casual and formal occasions." Added on 2025-02-05 16:07:38.

Promotions Table

Purpose:

Stores information about ongoing promotions.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each promotion.

- name (VARCHAR(255), NOT NULL): Promotion title.

- description (VARCHAR(255), NOT NULL): Details of the promotion.

- discount_value (DOUBLE, NOT NULL): Discount applied.

- status (VARCHAR(255), NULL): Promotion status.

- start_date (DATETIME, NOT NULL): Promotion start date.

- end_date (DATETIME, NOT NULL): Promotion end date.

- category_id (INT, FOREIGN KEY, NOT NULL): Links to a promotion category.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Promotion: "Flash Sales" (ID: 1) offers a 15% discount and is currently active. Starts on 2025-02-07 10:00:00 and ends on 2025-04-10 23:59:59.
- Promotion: "Drop Deal" (ID: 3) provides a 100,000 cut from product prices. It is active from 2025-02-01 10:00:00 to 2025-04-28 23:59:59.

Promotion_items Table

Purpose:

Stores products associated with specific promotions.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each promotion item.

- promotion_id (INT, FOREIGN KEY, NOT NULL): Links to a promotion.

- product_id (INT, FOREIGN KEY, NOT NULL): Links to a product.

- quantity (INT, NOT NULL): Number of items included in the promotion.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Promotion Item: "Wireless Mouse" (Product ID: 1) is included in the Flash Sales promotion (Promotion ID: 1) with a quantity of 1. Added on 2025-02-10 11:28:20.

- Promotion Item: "REVEN LEATHER - Asgard Laptop Bag" (Product ID: 3) is part of the Flash Sales promotion (Promotion ID: 1) with a quantity of 1. Added on 2025-02-10 11:28:33.
- Promotion Item: "AGOLDE '90s mid-rise straight-leg organic jeans" (Product ID: 5) is part of the Flash Sales promotion (Promotion ID: 1) with a quantity of 1. Added on 2025-02-10 11:28:44.
- Promotion Item: "VIMLE Sofa 3 dudukan" (Product ID: 6) is included in the Drop Deal promotion (Promotion ID: 3) with a quantity of 1. Added on 2025-02-10 15:03:37.

Reviews Table

Purpose:

Stores user reviews and ratings for products.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each review.
- user_id (INT, FOREIGN KEY, NOT NULL): Links to the user who wrote the review.
- product_id (INT, FOREIGN KEY, NOT NULL): Links to the reviewed product.
- rating (INT, NOT NULL, CHECK BETWEEN 1 AND 5): User's rating for the product.
- title (VARCHAR(255), NOT NULL): Short title of the review.
- comment (VARCHAR(1000), NOT NULL): Detailed review comment.
- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of review creation.
- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Review: User ID 5 rated Bluetooth Speaker X100 (Product ID: 2) 4 stars. Title: "Great Sound for the Price!" Comment: "I've been using the Bluetooth Speaker X100 for a few weeks now, and I'm really impressed with the sound quality." Posted on 2025-02-12 15:57:52.
- Review: User ID 4 rated Bluetooth Speaker X100 (Product ID: 2) 3 stars. Title: "Decent Speaker, But Has Some Flaws" Comment: "The Bluetooth Speaker X100 is okay for the price. The sound quality is decent, and it's easy to connect." Posted on 2025-02-12 15:57:21.

Carts Table

Purpose:

Stores shopping cart details for users.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each cart.

- user_id (INT, FOREIGN KEY, NOT NULL): Links to a user.

- total_price (DOUBLE, DEFAULT NULL): Total price of items in the cart.

- status (VARCHAR(255), DEFAULT NULL): Current status of the cart (e.g., active, completed).

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of cart creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Cart: User ID 4 has a cart (Cart ID: 1) with a total price of 1,781,889.9915 and status completed. Created on 2025-02-19 11:07:34.
- Cart: User ID 9 has a cart (Cart ID: 2) with a total price of 0 and status active. Created on 2025-02-11 14:39:12.
- Cart: User ID 10 has a cart (Cart ID: 3) with a total price of 0 and status active. Created on 2025-02-18 10:36:30.
- Cart: User ID 4 has another cart (Cart ID: 53) with a total price of 0 and status active. Created on 2025-02-19 14:14:25.

Cart_items Table

Purpose:

Stores individual products within a shopping cart.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each cart item.

- cart_id (INT, FOREIGN KEY, NOT NULL): Links to a cart.

- product_id (INT, FOREIGN KEY, NOT NULL): Links to a product.

- quantity (INT, NOT NULL): Number of units of the product in the cart.

- total_price (DOUBLE, DEFAULT NULL): Total price of the product quantity.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

- Cart Item: "REVEN LEATHER - Asgard Laptop Bag" (Product ID: 3) is in Cart ID: 1 with a quantity of 1 and total price 339999.9915. Added on 2025-02-19 10:08:06.
- Cart Item: "VIMLE Sofa 3 dudukan" (Product ID: 7) is in Cart ID: 1 with a quantity of 1 and total price 1441890. Added on 2025-02-19 10:07:37.

Orders Table

Purpose:

Stores order details placed by users.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each order.

- user_id (INT, FOREIGN KEY, NOT NULL): Links to a user.

- total_price (DOUBLE, DEFAULT NULL): Total price of the order.

- status (VARCHAR(255), DEFAULT NULL): Current status of the order (e.g., pending, completed).

- payment_id (INT, FOREIGN KEY, NOT NULL): Links to a payment transaction.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of order creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

- Order: User ID 7 placed an order (Order ID: 1) with a total price of 540001 and status completed. Payment ID 2 was used. Created on 2025-02-12 11:24:01.
- Order: User ID 9 placed an order (Order ID: 2) with a total price of 540001 and status completed. Payment ID 2 was used. Created on 2025-02-12 11:24:10.
- Order: User ID 4 placed an order (Order ID: 3) with a total price of 1960078.99065 and status completed. Payment ID 2 was used. Created on 2025-02-19 11:07:34.

Order_items Table

Purpose:

Stores details of individual products within an order.

Fields:

- id (INT, PRIMARY KEY, AUTO_INCREMENT): Unique identifier for each order item.

- product_id (INT, FOREIGN KEY, NOT NULL): Links to a product.

- order_id (INT, FOREIGN KEY, NOT NULL): Links to an order.

- quantity (INT, NOT NULL): Number of units of the product in the order.

- total_price (DOUBLE, DEFAULT NULL): Total price of the product quantity.

- created_at (DATETIME, DEFAULT CURRENT_TIMESTAMP): Timestamp of creation.

- updated_at (DATETIME, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): Timestamp of last update.

Example Data:

!!! Note that this data is only some of the data that is stored in IMART database !!!

- Order Item: "Bluetooth Speaker X100" (Product ID: 2) in Order ID: 1 with a quantity of 2 and total price 540001. Created on 2025-02-12 11:28:11.
- Order Item: "Bluetooth Speaker X100" (Product ID: 2) in Order ID: 2 with a quantity of 2 and total price 540001. Created on 2025-02-12 11:28:20.
- Order Item: "REVEN LEATHER - Asgard Laptop Bag" (Product ID: 3) in Order ID: 3 with a quantity of 1 and total price 339999.9915. Created on 2025-02-19 11:07:35.
- Order Item: "VIMLE Sofa 3 dudukan" (Product ID: 7) in Order ID: 3 with a quantity of 1 and total price 1441890. Created on 2025-02-19 11:07:35.