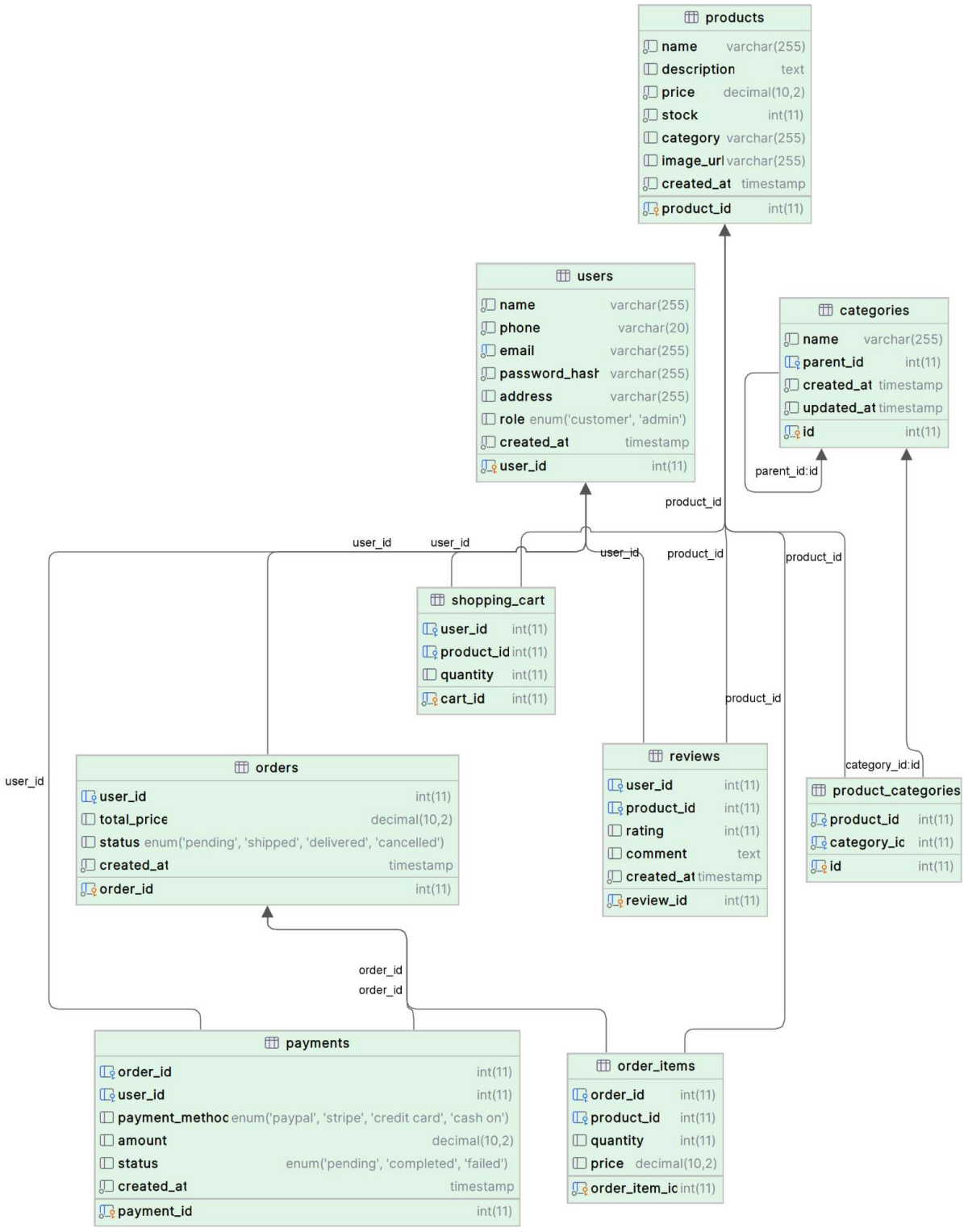
ER Diagram of E_Commerce



Design of E-Commerce Databases: Relationship Overview

Users & Orders

- A one-to-many relationship can be established by each user placing many orders.

Orders & Order Items

- Multiple Order Items make up each Order, establishing a one-to-many relationship.
- There is a many-to-one linkup between each Order Item and the Products table.

Users & Shopping Cart

- Multiple products may be in each user's shopping cart, creating a many-to-many relationship that is controlled by the Shopping_Cart database.

Products & Categories

- The product_categories table manages a many-to-many relationship between products that fall under one or more Categories.
- A hierarchical self-referential relationship can be established between categories and subcategories.

Users & Payments

- Every payment is connected to an order and a user, guaranteeing transaction tracking.

Users & Reviews

- Users can create a one-to-many relationship by submitting many reviews for various products.

Constraints & Data Integrity

- Consistency across tables is ensured by foreign keys, which guarantee referential integrity.
- By eliminating dependent records when a parent record is destroyed, cascade deletions contribute to data integrity.