

Relationship	From → To	Cardinality Notes
Users → Sellers	user → seller	1:N One user can have multiple seller accounts (unless user_id is UNIQUE)
Sellers → Products	seller → product	1:N One seller can list many products
Brands → Products	brand → product	1:N One brand can have multiple products
Categories → Categories	category → category (parent_category_id)	1:N Recursive relationship, one parent can have multiple subcategories
Products → ProductVariants	product → product_variant	1:N Each product can have multiple variants
Products → ProductImages	product → product_image	1:N Each product can have multiple images
Products → Reviews	product → review	1:N Each product can have multiple reviews
Users → Reviews	user → review	1:N Each user can write multiple reviews
Products → Categories	product → category (via product_category)	M:N Many products can belong to many categories
Categories → Products	category → product (via product_category)	M:N Many categories can include many products
Users → Orders	user → order	1:N Each user can place many orders
Orders → OrderItems	order → order_item	1:N Each order can contain multiple items
Orders → Shipments	order → shipment	1:1 Each order has at most one shipment

Relationship	From → To	Cardinality Notes
Orders → Payments	order → payment	1:N Each order can have multiple payments (partial payments)
Users → Addresses	user → address	1:N Each user can have multiple addresses
Users → Carts	user → cart	1:1 Usually one active cart per user
Carts → CartItems	cart → cart_item	1:N Each cart can contain multiple items
Users → Wishlists	user → wishlist	1:N Each user can have multiple wishlists
Wishlists → WishlistItems	wishlist → wishlist_item	1:N Each wishlist can contain multiple items
Products → WishlistItems	product → wishlist_item	1:N Each product can be in many wishlists
ProductVariants → WishlistItems	variant → wishlist_item	1:N Each variant can be in many wishlist items
Products → OrderItems	product → order_item	1:N Each product can appear in many order items
ProductVariants → OrderItems	variant → order_item	1:N Each variant can appear in many order items