



Entity Relationship Diagram of E-commerce Platform

ERD Diagram Short Description

This Entity-Relationship Diagram (ERD) outlines the database schema for a single-vendor e-commerce platform. It models the core entities and their relationships, including products, categories, users, shopping carts, orders, and ratings. The diagram ensures data integrity by defining primary keys (PK), foreign keys (FK), and unique constraints (UK), allowing the system to track customer actions from Browse products to making a purchase and leaving a

review. It is a foundational blueprint for developing the database layer of the e-commerce application.

Table A	Relationship	Table B	Description
Category	has many	Product	A product belongs to exactly one category, but a category can contain many products.
User	has one	Cart	Each user has their own unique shopping cart.
User	places	Order	A user can place many orders, but each order belongs to one user.
User	creates	Rating	A user can create many ratings for different products.
Product	has many	Rating	A product can receive many ratings from different users.
Product	included in	CartItem	A product can be added to many different shopping cart items.
Product	included in	OrderItem	A product can be included in many different order items after a purchase.
Cart	contains	CartItem	A shopping cart can contain many items. Each item is tied to a specific cart.
Order	contains	OrderItem	An order contains many ordered items. Each item is tied to a specific order.