

The database system will support a comprehensive **Trendyol** e-commerce platform that includes different types of users, product management, orders, logistics, and payment processing. Below is a description of each entity and its requirements.

Each **User** is identified by a unique account and is described by their full name, phone number, email, hashed password, membership date, and user type (customer or admin).

A **Customer** is a type of user, distinguished by their unique `UserId`, and can be categorized into different customer types. Elite accounts have start and end dates for their special account. Customers can become elite accounts based on the points they have earned. Premium accounts receive exclusive discounts. Each customer has addresses for shopping. Customers should be able to like the products they want. Customers create their desired collection with products. Customers can follow their collections if they wish. Customers can save their payment method if they want.

An **Admin** is another type of user, identified by their unique `UserId`, and is responsible for managing the system. Admins have separate roles for the system and their last login time is recorded.

A **Shop** has unique `RegistrationNumber` and includes attributes such as `ShopDescription`, `ShopRate`, `ShopName`, `CreationDate`, and `ShopPhone`. Also, a shop has contact information, including a phone number and a contact address. Shop can be different business type.

Each **Address** is uniquely identified by an `AddressId` and includes details such as `Neighborhood`, `Province`, `City`, `Country`, `Flat`, `Apartment`, `Zipcode` and `AddressType`. The address type specifies whether the address is for accommodation or a delivery point. Addresses can belong to customers or shops.

A **Product** is uniquely identified by a `ProductId` and every product has `Name`, `Brand`, `SKU`, `ShortDescription`, `FullDescription`, `ApprovalStatus`, `Status`, `Rating`, `DateAdded`, `TaxClass`, `BarCode`, `BasePrice`. Product has url for media. Products sold by shops.

A **Collection** is created by customer to organize their products. Each list is identified by a `ListID` and has attributes like `ListName`, `ListType`, `Visibility`, and `CreatedAt`.

Questions are submitted by customers about products. Each question is identified by a QuestionNumber and includes QuestionText, QuestionDate, AnswerDate, and AnswerText. Questions are answered by shop.

ProductOptions define additional characteristics of products. Each option is identified by an OptionID, has an OptionName, and can be mandatory or optional.

OptionValues specify possible values for product options. Each value has an OptionValueID, DimensionImpact, WeightImpact, AdditionalPrice.

ProductVariations are specific combinations of product options. Each variation is identified by a VariationID and includes attributes like Status, StockLevel, Weight, OptionCombination, UpdateAt, Price and url for images. Variations are associated with option values through the Combination relationship.

ProductCategories organize products into hierarchical categories. Each category is identified by a CategoryID and includes a CategoryName and media. Categories can have parent-child relationships through the Subcategory entity.

Logistics entities handle order delivery and are identified by a LogisticID. Attributes include TrackingNumber, DeliveryStatus, Recipient, ShippingDate, DeliveryDate, and use customer's address. The LogisticType attribute distinguishes between different logistics providers. Delivery statuses define the possible statuses of orders, such as "Pending," "InTransit," and "Delivered." Logistic using address for shopping.

PaymentMethods define how customers complete their payments, including options such as bank cards, HepsiPay wallets, and other methods like transfers, multiple credits, and digital payments. Each payment method is identified by a unique Payment_ID. Customers can opt for installment payments when placing an order using a bank card.

SKUManagement tracks stock levels and restocking details for products. Each SKU has attributes like SupplierName, RestockDate, StockLevel, and RestockThreshold.

Discounts provide promotional offers for products. Discounts are identified by a DiscountID and have attributes like Limit, Status, Rate with Percentage discount, Amount with FixedAmount discount, and PrimeDiscount. Coupons applied direct cart items.

Reviews allow customers to provide feedback only on products they have purchased and includes attributes like ResponseDate, ResponseText, Rating, Comment, ReviewDate.

Additionally, orders are linked to an **Approved_Cart**, which is identified by an Approved_Cart_ID and contains attributes like TotalPrice. The relationship between orders and approved carts is defined through the approved action.

OrderItem details the individual products in an order. Each item is identified by an OrderItemID and includes attributes like OrderItemId, Price, OrderStatus. The OrderItem shipped the Logistic.

Returns are added back to products from order items. Each return includes attributes like TrackingNo, ReturnLocation, ReturnDate, ReturnReason, ReturnStatus.

CartItem place the contents of a customer's Cart. Each record includes attributes like Quantity, FinalPrice, and CartItemId. Carts are linked to customers and products. CartItem turns into OrderItem after the purchase process.

Cart represents a customer's shopping session. Each cart has a CartID and attributes like CartStatus, CreateDate, UpdateDate, and TotalPrice. Each Cart owns one customer.