**MODULES IDENTIFICATION**

**-Domain:**

E-commerce (Patisserie Website)

**-Entities:**

1. Customer
2. Product
3. Order
4. Category
5. Payment
6. Review
7. Coupon
8. Shipping

**-Attributes and Data Types:**

**1. Customer:**

* Customer ID (Integer): Specific id for the customer.
* First Name (String): First name of the customer.
* Last Name (String): Last name of the customer.
* Email (String): Email address of the customer.
* Phone Number (String): Phone number of the customer.
* Shipping Address (String): Shipping address of the customer.
* Membership Status (Boolean): Boolean values to check if the customer is a member
* Date Registered (Date): Date the customer registered on the website.
* Last Login (Date/time): Date and time of the customer's last login.
* Total Orders (Integer): Total number of orders placed by the customer.

**2.Product:**

* Product ID (Integer): Specific id for the product.
* Product Name (String): Name of the product.
* Description (String): A description of the product.
* Price (Float): The price of the product.
* Quantity (Integer): Number of units of the product available in stock.
* Category ID (Integer): Category to which the product belongs.
* Image URL (String): URL of product image.
* Average Rating (Float): Average rating given by customers.

**3.Order:**

* Order ID (Integer): Specific id for the order.
* Customer ID (Integer): Customer id for the order placed by the customer.
* Order Date (Date/time): Date and time the order was placed.
* Total Amount (Float): Total amount of the order.
* Payment Method (String): Payment method of the payment made.
* Payment ID (Integer): Payment id for the payment.
* Shipping Address (Integer): Shipping Address of the order.
* Order Status (String): Status of the order.
* Shipping Date (Date): Date the order was shipped.
* Shipping Fee (Float): The fee for shipment

**4.Category:**

* Category ID (Integer): Specific id for the category.
* Category Name (String): Name of the category.
* Description (String): Description of the category.
* Total Products (Integer): Total number of products in the category.
* Date Created (Date): Date the category was created.
* Last Updated (Date/time): Date and time the category was last updated.
* Active (Boolean): To check if the category is active or not.
* Category Type (String): Type of product in the category.
* Image URL (String): URL of an image representing the category.

**5.Payment:**

* Payment ID (Integer): Specific id for the payment.
* Order ID (Integer): Specific id for the order
* Payment Method (String): Payment method used.
* Payment Date (Date/time): Date and time the payment was made.
* Transaction ID (String): Specific id for the payment transaction.
* Payment Status (String): Status of the payment.
* Card Type (String): Type of credit/debit card used.
* Total Amount (Float): Total Amount to be paid.
* Discount Applied (Float): Discount applied on the payment.

**6.Review:**

* Review ID (Integer): Specific id for the review.
* Product ID (Integer): Product id for the review.
* Customer ID (Integer): Customer id for the review.
* Rating (Integer): Rating given by the customer.
* Review Text (String): Review provided by the customer.
* Review Date (Date): Date the review was submitted.
* Review Status (String): Status of the review.
* Response Date (Date/time): Date and time of the response given.
* Visibility Status (String): Visibility status of the review.

**7.Coupon:**

* Coupon ID (String): Specific id for the coupon.
* Order ID (String): Specific id for the order for which coupon is applied.
* Coupon Code (String): Unique code for the coupon.
* Discount Percentage (Float): Percentage of discount offered by the coupon.
* Expiration Date (Date): Date the coupon expires.
* Minimum Order Amount (Float): Minimum order amount required to use the coupon.
* Maximum Discount Amount (Float): Maximum discount amount applicable with the coupon.
* Coupon Use (String): Shows how many times the coupon has been used.
* Usage Limit (Integer): Maximum number of times the coupon can be used.
* Usage Date (Date): Date the coupon was used.
* Coupon Status (String): Shows if the coupon is in use.

**8. Shipping:**

* Shipping ID (Integer): Specific id for the shipping.
* Customer ID (Integer): Customer id for the shipping.
* Address (String): Shipping address.
* City (String): City where the address is located.
* Country (String): Country where the address is located.
* Shipping Date (Date): Date of shipping the order.
* Shipping Status (Boolean): Shows if the order was shipped.
* Phone Number (String): Phone number associated with the address.
* Delivery Instructions (String): Additional instructions for delivery.

**-ER Diagram:**

A diagram of a computer

Description automatically generated with medium confidence