

1. Sản phẩm & Danh mục

```
public class Product
{
    public int ProductID { get; set; }
    public string Name { get; set; }
    public string Description { get; set; }
    public decimal Price { get; set; }
    public int Stock { get; set; }
    public int CategoryID { get; set; }
    public int BrandID { get; set; }
    public Category Category { get; set; }
    public Brand Brand { get; set; }
    public List<ProductVariant> Variants { get; set; }
    public List<ProductImage> Images { get; set; }
    public List<ProductReview> Reviews { get; set; }
}
```

```
public class Category
{
    public int CategoryID { get; set; }
    public string Name { get; set; }
    public string Description { get; set; }
    public List<Product> Products { get; set; }
}
```

```
public class Brand
{
    public int BrandID { get; set; }
    public string Name { get; set; }
    public List<Product> Products { get; set; }
}
```

```
public class ProductVariant
{
    public int ProductVariantID { get; set; }
    public int ProductID { get; set; }
    public string Color { get; set; }
    public string Size { get; set; }
    public int Stock { get; set; }
    public Product Product { get; set; }
}
```

```
public class ProductImage
{
    public int ProductImageID { get; set; }
    public int ProductID { get; set; }
    public string ImageURL { get; set; }
    public Product Product { get; set; }
}
```

```

    }
    public class ProductReview
    {
        public int ProductReviewID { get; set; }
        public int ProductID { get; set; }
        public int UserID { get; set; }
        public int Rating { get; set; }
        public string Comment { get; set; }
        public DateTime CreatedAt { get; set; }
        public Product Product { get; set; }
        public User User { get; set; }
    }

```

2. Đơn hàng & Thanh toán

```

public class Order
{
    public int OrderID { get; set; }
    public int UserID { get; set; }
    public decimal TotalAmount { get; set; }
    public string Status { get; set; } // pending, shipped, delivered
    public DateTime CreatedAt { get; set; }
    public User User { get; set; }
    public List<OrderDetail> OrderDetails { get; set; }
    public Payment Payment { get; set; }
}

public class OrderDetail
{
    public int OrderDetailID { get; set; }
    public int OrderID { get; set; }
    public int ProductID { get; set; }
    public int Quantity { get; set; }
    public decimal Price { get; set; }
    public Order Order { get; set; }
    public Product Product { get; set; }
}

public class Payment
{
    public int PaymentID { get; set; }
    public int OrderID { get; set; }
    public string PaymentMethod { get; set; } // Credit Card, PayPal, COD
    public bool IsPaid { get; set; }
    public DateTime PaidAt { get; set; }
    public Order Order { get; set; }
}

```

3. Người dùng & Quản lý

```
public class User
{
    public int Id { get; set; }
    public string FullName { get; set; }
    public string Email { get; set; }
    public string Phone { get; set; }
    public string Role { get; set; } // customer, admin
    public List<Order> Orders { get; set; }
    public List<UserAddress> Addresses { get; set; }
}
```

```
public class UserAddress
{
    public int UserAddressID { get; set; }
    public int UserID { get; set; }
    public string Address { get; set; }
    public string City { get; set; }
    public string PostalCode { get; set; }
    public User User { get; set; }
}
```

```
public class Cart
{
    public int CartID { get; set; }
    public int UserID { get; set; }
    public int ProductID { get; set; }
    public int Quantity { get; set; }
    public User User { get; set; }
    public Product Product { get; set; }
}
```

```
public class Wishlist
{
    public int WishlistID { get; set; }
    public int UserID { get; set; }
    public int ProductID { get; set; }
    public User User { get; set; }
    public Product Product { get; set; }
}
```

4. Hệ thống

```
public class Discount
```

<pre> { public int DiscountID { get; set; } public string Code { get; set; } public decimal Percentage { get; set; } public DateTime ExpiryDate { get; set; } } </pre>
<pre> public class Transaction { public int TransactionID { get; set; } public int OrderID { get; set; } public decimal Amount { get; set; } public string Status { get; set; } // success, failed public DateTime CreatedAt { get; set; } public Order Order { get; set; } } </pre>
<pre> public class Log { public int LogID { get; set; } public string Action { get; set; } public string Details { get; set; } public DateTime CreatedAt { get; set; } } </pre>

📌 Ví dụ dữ liệu:

OrderID	UserID	TotalAmount	Status	CreatedAt
1	101	500.00	pending	2025-03-06
2	102	300.00	shipped	2025-03-05

OrderDetailID	OrderID	ProductID	Quantity	Price
1	1	201	2	250.00
2	1	202	1	250.00
3	2	203	3	100.00

CategoryID	Name	Description
1	Áo Thun	Áo thun nam, nữ, trẻ em
2	Quần Jeans	Quần jeans các loại
3	Giày	Giày thể thao, giày công sở
4	Phụ kiện	Đồng hồ, túi xách, kính mắt

ProductID	Name	Description	Price	Stock	CategoryID
101	Áo Thun Đen Nam	Áo thun đen nam 100% cotton	200K	50	1
102	Áo Thun Trắng Nữ	Áo thun trắng nữ thoáng mát	180K	40	1
103	Quần Jeans Xanh Nam	Quần jeans xanh, form slim fit	450K	30	2
104	Giày Thể Thao Adidas	Giày thể thao Adidas chính hãng	1.200K	20	3
105	Đồng Hồ Casio MTP-1374	Đồng hồ nam dây da chống nước	850K	15	4

VariantID	ProductID	Size	Color	Stock
1	101	M	Đen	20
2	101	L	Đen	15
3	102	S	Trắng	10
4	103	30	Xanh	12

ImageID	ProductID	ImageUrl
1	101	/images/ao-thun-den-m.jpg
2	101	/images/ao-thun-den-l.jpg
3	102	/images/ao-thun-trang.jpg
4	103	/images/quan-jeans.jpg
5	104	/images/giay-adidas.jpg

ReviewID	ProductID	UserID	Rating	Comment	CreatedAt
1	101	201	5	Áo rất đẹp, vải mát	2025-03-01 10:00
2	101	202	4	Giá hơi cao chút	2025-03-02 14:30
3	103	203	5	Quần đẹp, đúng size	2025-03-03 09:20
4	104	204	5	Giày Adidas xịn quá	2025-03-04 17:45