FINAL CLASS DIAGRAM

Young
isStudying : bool

Adult
isWorking : bool

Retired
reasonOfRetirement : string

{disjoint, complete}

Person {Abstract}
name: string
surname:string
email: string
phone: string
address: string
age:int
isStudying : bool
isWorking : bool
isRetired : bool
RetirementType : Retirement

GetDiscountPercentage();
ToString();

{overlapping, incomplete}

Membership
membershipID: int
customerId : int
status : bool
discountRate: double

Shipping
shippingID: int
orderId : int
Method: string
Cost: double
Address: string

toString();

Order
orderID: string
customerId : int
orderDate: date
amount : double
status: string
shippingId : int
Products[1..*] : <Product>

CreateShipping(method,cost,address);
toString();

Cart
customerId : int
Products[1..*] : <Product,Promotion>

AddProduct(Product, Promotion);
RemoveProduct(Product,Promotion);
CalculateTotalSum();
ConvertToOrder();
ToString();

Employee
employeeId: int
Employees[1..*] : <Employee>
Emposition: string
hireDate: date
salary [0..1]: double (nullable)
Subordinate : Employee

CreateReport(reportType,
content);
GetAllEmployees();
ToString();

{ position = manager }

Customer
customerId : int
registerDate : date
cart : Cart
membership : membership

CreateOrder();
CreatePayment();
CreateReview();
GetAllCustomers();
ToString();
GetCustomerWithId();

Payment
orderId : int
paymentID: int
paymentMethod: string
/amount : double

toString();

Accessory
type: string
MaterialType : materialType
Products[1..*] : <Accessory>

toString();

{Metal,Wood,Plastic,Gold,Leather}

Report
EmployeeId : int
reportType: string
content: string
date:date

ToString();

Review
raiting: int
comment: string
issuedBy : int

Product
productID: string
title: string
price: double
stockQuantity: int
Types[1..*] : <Type>
Promotions[1..*] : <Promotion>

AddPromotion(Promotion);
ApplyPromotion(Promotion);
RemovePromotion(Promotion);
GetProductsOfType();
ToString();

{disjoint, incomplete}

Book
author: string
genre: string
publicationYear: int
Products[1..*] : <Book>

toString();

Inventory
totalQuantity: int
accessoriesQuantity : int
lowStock: bool
lowAccessoryStock : bool
supplierInfo: string

InventoryInfo();

Promotion
promotionId : int
name: string
description: string
discountPercentage: int

toString();

Bookstore - Usecase Diagram

Bookstore System

- Look for items
- Add item to cart
- View cart
- Apply for membership benefits
- Make a review
- Make a report
- Check inventory availability
- Make an order
- Remove item from cart

<<extend>>

Customer

Employee

Payment Gateaway

Add item to cart - Activity diagram

Customer	System

- Click on item → Display item information
- Choose item quantity / Click on add item to cart button
- Is it available?
- Add item to customer card / Show message
- Do you want to continue shopping?
- Click on "Go to the cart" / Click on "Continue shopping"
- Display main page
- Display cart

Make an order - Activity diagram

Customer	System

- Click on "Continue to checkout" → Apply discounts/ promotions
- Display cart information
- Provide personal information / Provide shipping details
- Notify customer of failed payment
- Provide payment details
- Is the payment successful?
- Generate shipping tracking number
- Notify customer of order confirmation / Notify customer of shipping details