using System;

using System.Collections.Generic;

public class Item

{

public double ShippingWeight { get; set; }

public string Description { get; set; }

public Item() { }

public Item(double shippingWeight, string description)

{

ShippingWeight = shippingWeight;

Description = description;

}

public double GetPriceForQuantity()

{

return 0.0;

}

public double GetTax()

{

return 0.0;

}

public bool InStock()

{

return true;

}

public override string ToString()

{

return $"ShippingWeight: {ShippingWeight}, Description: {Description}";

}

}

public class OrderDetail

{

public int Quantity { get; set; }

public string TaxStatus { get; set; }

public OrderDetail() { }

public OrderDetail(int quantity, string taxStatus)

{

Quantity = quantity;

TaxStatus = taxStatus;

}

public double CalcSubTotal()

{

return 0.0;

}

public double CalcWeight()

{

return 0.0;

}

public double CalcTax()

{

return 0.0;

}

public override string ToString()

{

return $"Quantity: {Quantity}, TaxStatus: {TaxStatus}";

}

}

public class Order

{

public DateTime Date { get; set; }

public string Status { get; set; }

public OrderDetail Od1 { get; set; }

public List<OrderDetail> OrderDetails { get; set; }

public Order() { }

public Order(DateTime date, string status, OrderDetail od1, List<OrderDetail> orderDetails)

{

Date = date;

Status = status;

Od1 = od1;

OrderDetails = orderDetails;

}

public double CalcSubTotal()

{

return 0.0;

}

public double CalcTax()

{

return 0.0;

}

public double CalcTotal()

{

return 0.0;

}

public double CalcTotalWeight()

{

return 0.0;

}

public override string ToString()

{

return $"Date: {Date}, Status: {Status}, Od1: {Od1}, OrderDetails: {string.Join(", ", OrderDetails)}";

}

}

public class Customer

{

public string Name { get; set; }

public string Address { get; set; }

public Customer() { }

public Customer(string name, string address)

{

Name = name;

Address = address;

}

public override string ToString()

{

return $"Name: {Name}, Address: {Address}";

}

}

public class Payment

{

public float Amount { get; set; }

public Payment() { }

public Payment(float amount)

{

Amount = amount;

}

public override string ToString()

{

return $"Amount: {Amount}";

}

}

public class Cash : Payment

{

public float CashTendered { get; set; }

public Cash() { }

public Cash(float amount, float cashTendered) : base(amount)

{

CashTendered = cashTendered;

}

public override string ToString()

{

return $"{base.ToString()}, CashTendered: {CashTendered}";

}

}

public class Check : Payment

{

public string Name { get; set; }

public string BankID { get; set; }

public Check() { }

public Check(float amount, string name, string bankID) : base(amount)

{

Name = name;

BankID = bankID;

}

public override string ToString()

{

return $"{base.ToString()}, Name: {Name}, BankID: {BankID}";

}

public bool Authorized()

{

return true;

}

}

public class Credit : Payment

{

public string CardholderName { get; set; }

public string CardType { get; set; }

public DateTime ExpDate { get; set; }

public Credit(double v) { }

public Credit(float amount, string cardholderName, string cardType, DateTime expDate) : base(amount)

{

CardholderName = cardholderName;

CardType = cardType;

ExpDate = expDate;

}

public override string ToString()

{

return $"{base.ToString()}, CardholderName: {CardholderName}, CardType: {CardType}, ExpDate: {ExpDate}";

}

public bool Authorized()

{

return true;

}

}

public class HelloWorld

{

public static void Main(string[] args)

{

// Example of inserting data

Item item1 = new Item(2.5, "Product A");

OrderDetail od1 = new OrderDetail(3, "Taxable");

List<OrderDetail> orderDetails = new List<OrderDetail> { od1 };

Order o1 = new Order(DateTime.Now, "Processing", od1, orderDetails);

Customer customer1 = new Customer("Mahmoud", "304 Main St");

Payment payment1 = new Payment(100.0f);

Cash cash1 = new Cash(100.0f, 50.0f);

Credit credit1 = new Credit(100.0f, "Mahmoud", "cridet", DateTime.Now.AddYears(2));

Check check1 = new Check(100.0f, "Mahmoud", "200478");

// Displaying data

Console.WriteLine(item1);

Console.WriteLine(od1);

Console.WriteLine(o1);

Console.WriteLine(customer1);

Console.WriteLine(payment1);

Console.WriteLine(cash1);

Console.WriteLine(credit1);

Console.WriteLine(check1);

    }

}