Great Outdoors – Project

Team A – Classes Document

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Class 1 : Product

Fields

|  |  |  |
| --- | --- | --- |
| # | Field | Descriptions |
| 1 | private int \_productID | Primary Key value of the product. |
| 2 | private string \_productName | Name of the Product. |
| 3 | private int \_categoryID | Primary Key value of the Category. |
| 4 | private int \_specificationID | Primary Key value of the specification. |
| 5 | private int \_pCostPrice | Cost Price of the Product. |
| 6 | private int \_pSellingPrice | Selling Price of the Product. |
| 7 | private Boolean \_available | Whether the product is available or not. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Property | Validations |
| 1 | public int ProductID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public string ProductName | Alpha-numeric; not null. Should be less than 40 characters. |
| 3 | public int CategoryID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 4 | public int SpecificationID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 5 | Public double PCostPrice | Double, not null. |
| 6 | public int PSellngPrice | Double, not null. |
| 7 | public Boolean Available | True or False. |

Methods

|  |  |  |
| --- | --- | --- |
| # | Method | Descriptions |
| 1 | public void ProductDetailsUpdate | To update the details of a particular product |

Class 2: Category

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_productID | Primary key for a product |
| 2 | private int \_categoryID | Primary key for the category |
| 3 | private string \_categoryName | Name of the Category |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int ProductID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public int CategoryID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 3 | public string CategoryName | Alpha-numeric; not null. Should be less than 40 characters. |

Class 3 : Specification

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_productID | Primary key for a product. |
| 2 | private int \_specificationID | Primary key for a specification. |
| 3 | private string \_color | Color of the product. |
| 4 | private int \_size | Size of the product. |
| 5 | private string \_techspec | Technical specifications of the product. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int ProductID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | private int SpecificationID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 3 | private string Color | String containing only alphabets. Should be less than 40 characters. |
| 4 | private int Size | Alpha-numeric. |
| 5 | private string TechSpec | Alpha-numeric. Should be less than 1000 characters. |

Class 4 : Inventory

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_productID | Primary Key of the product. |
| 2 | private int \_pQuantity | Quantity of a particular product. |
| 3 | private double \_pTotalCostPrice | Total Cost price of products. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int ProductID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public int PQuantity | Positive integer. |
| 3 | public double PTotalCostPrice | Double, not null. |

Methods

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| --- | --- | --- |
| # | Methods | Descriptions |
| 1 | Public void UpdateInventory | To update any details in inventory. |

Class 5: Retailer

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_retailerID | Primary Key of a retailer. |
| 2 | private string \_uName | Username of the retailer. |
| 3 | private string \_password | Password of the retailer. |
| 4 | private string \_name | Name of the retailer. |
| 5 | private string \_email | Email of the retailer. |
| 6 | private string \_phone | Phone no of the retailer. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int RetailerID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public string UName | Alpha-numeric; not null. Should be less than 40 characters. |
| 3 | public string Password | Alpha-numeric; not null. Should be more than 8 and less than 13 characters. |
| 4 | public string Name | Alpha-numeric; not null. Should be less than 60 characters. |
| 5 | public string Email | Alpha-numeric, may contain special character such as @ and .(dot) |
| 6 | public string Phone | String containing only numbers. String length must be 10. |

Class 6: Address

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_retailerID | Primary Key of a retailer. |
| 2 | private int \_addressID | Address Id of the particular address. |
| 3 | private string \_line1 | First part of the address. |
| 4 | private string \_line2 | Second part of the address. |
| 5 | private string \_city | City of the retailer. |
| 6 | private int \_pinCode | Pin code of the retailer. |
| 7 | private string \_state | State of the retailer. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int RetailerID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public int AddressID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 3 | public string Line1 | String, not null, must be less than 200 characters. |
| 4 | public string Line2 | String, must be less than 200 characters. |
| 5 | public string City | String, not null, must be less than 40 characters. |
| 6 | public int PinCode | String of numbers only. The string length must be 6. |
| 7 | public string State | String, not null, must be less than 40 characters. |

Class 7 : Order

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_orderID | Primary key of the order. |
| 2 | private <List> int [][] \_productIDList | List of the product IDs retailer wants to order. |
| 3 | private int \_retailerID | Primary Key of the retailer. |
| 4 | private bool \_channelOfSale | Whether the order is being ordered online or offline. |
| 5 | private double \_sellingPrice | Total selling price on that order. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int OrderID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public<List> int[][] ProductIDList | List, not null. |
| 3 | publicint RetailerID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 4 | public bool ChannelOfSale | True or False. |
| 5 | public double SellingPrice | Double value, positive. |

Methods

|  |  |  |
| --- | --- | --- |
| # | Method | Descriptions |
| 1 | public void OrderReceipt | Generate a receipt of the order. |
| 2 | public void GiftPacking | To ask the retailer whether he wants a gift packing on the product or not. |
| 3 | public void SelectAddress | To select address for the products in the order. |
| 4 | public void ReplaceShippingAddress | In case the retailer wants to change the shipping address after the initial order. |

Class 8 – Return

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_returnID | Primary key of the return. |
| 2 | private int \_orderID | The order with respect to which the return is taking place. |
| 3 | private int \_productID | Primary key of the product. |
| 4 | private bool \_reasonIncomplete | Whether the reason for return is product incomplete. |
| 5 | private bool \_reasonWrong | Whether the reason for return is product wrong. |
| 6 | private double \_returnValue | Amount of money to be returned to the retailer. |
| 7 | private int \_returnQuantity | Number of products to be returned. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Validations |
| 1 | public int ReturnID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public int OrderID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 3 | public int ProductID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 4 | public bool ReasonIncomplete | True or False. |
| 5 | public bool ReasonWrong | True or False. |
| 6 | public double ReturnValue | Double, not null. |
| 7 | public int ReturnQuantity | Positive integer. |

Methods

|  |  |  |
| --- | --- | --- |
| # | Methods | Descriptions |
| 1 | public OrderForReturn | The order which will be auto-generated with respect to the return. |
| 2 | public TrackReturn | To track the return process. |
| 3 | public DeductMoneyFromRevenue | To return the money to the retailer and subtract the same from the revenue. |
| 4 | public CancelOrder | To cancel the already initiated order and refund the same to retailer. |

Class 9 – Discount

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_orderID | Primary Key of order. |
| 2 | private int \_retailerID | Primary Key of retailer. |
| 3 | private double \_retailerDiscount | Discount applied for retailer. |
| 4 | private double \_categoryDiscount | Discount applied for category of the product ordered. |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Descriptions |
| 1 | public int OrderID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public int RetailerID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 3 | public double RetailerDiscount | Double, Not Null, not negative. |
| 4 | public double CategoryDiscount | Double, Not Null, not negative. |

Class -10 Sales

Fields

|  |  |  |
| --- | --- | --- |
| # | Fields | Descriptions |
| 1 | private int \_salesPersonId | Primary Key of sales person. |
| 2 | private string \_salesPersonName | Primary Key of sales person name. |
| 3 | public<List> int[][] \_salesHistory | List of the sales history |

Properties

|  |  |  |
| --- | --- | --- |
| # | Properties | Descriptions |
| 1 | public int \_salesPersonId | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public string \_salesPersonName | not null; |
| 3 | public<List> int[][] \_salesHistory | List, not null. |

Methods

|  |  |  |
| --- | --- | --- |
| # | Method | Descriptions |
| 1 | public ViewDetails | Display personal details. |
| 2 | public CheckTarget | Display target status. |
| 3 | public uploadOfflineOrder | Upload order details of offline orders. |
| 4 | public cancelOrder | Cancel placed offline order. |
| 5 | public returOrder | Return order. |