**Inventory Management – Case study**

Team C – Classes Document

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Class 1: Supplier

**Fields:**

|  |  |  |
| --- | --- | --- |
| **#** | **Field** | **Description** |
| 1 | private int \_supplierID | Primary key (unique) value of supplier. |
| 2 | private string \_supplierName | Name of the supplier |
| 3 | private string \_supplierAddress | Unique code of the employee |
| 4 | Private string \_supplieremailID |  |
| 5 | Private string \_supplierPhone |  |
| 6 | Private int \_rawQuantity |  |
| 7 | Private int \_rawPrice |  |
| 8 |  |  |

**Properties:**

|  |  |  |
| --- | --- | --- |
| **#** | **Property** | **Validations** |
| 1 | public int SupplierID | Unique; not null; System-generated (starts with 1, increment by 1) |
| 2 | public string SupplierName | Name of the employee.  Alpha-numeric; not null.  Should be less than 40 characters. |
| 3 | public string SupplierAddress | Unique; Not null.  Should between 4 to 10 characters.  Alpha-numeric. |
| 4 | Public string SupplierEmailID |  |
| 5 | Public string SupplierPhone |  |
| 6 | Public int RawQuantity |  |
| 7 | Public int RawPrice |  |

**Methods:**

|  |  |  |
| --- | --- | --- |
| **#** | **Method** | **Description** |
| 1 | Public void TrackingDetails(int OrderID, DateTime DoOrder, DateTime DoDispatch, DateTime DoArrival ) | Use for tracking purpose |
| 2 | public | Returns list of employees that matches with given username and password. |
| 3 | public Employee GetEmployeeByEmail(string Email) | Return single employee object that matches with given email address.  Return null if not matched. |
|  |  |  |
|  |  |  |

Class 2: Distributor

**Fields:**

|  |  |  |
| --- | --- | --- |
| **#** | **Field** | **Description** |
| 1 | private string \_distributorID | Primary key (unique) value of distributor. |
| 2 | private string \_distributorName | Name of the distributor |
| 3 | private string \_distributorAddress | Address of the distributor |
| 4 | Private string \_distributorEmailID | Email of the distributor |
| 5 | Private string \_distributorPhone | Phone Number of the distributor |
| 6 | Private int \_productQuantity | Total Quantity |
| 7 | Private double \_productPrice | Price of each quantity |
| 8 | Private string \_productID | Unique ID of the 5 products |

**Properties:**

|  |  |  |
| --- | --- | --- |
| **#** | **Property** | **Validations** |
| 1 | public string DistributorID |  |
| 2 | public string DistributorName | Length 5-30 Characters |
| 3 | public string DistributorAddress | Length 20-50 characters |
| 4 | Public string DistributorEmailID | Length 15-30 characters, contains {.,@,com} |
| 5 | Public string DistributorPhone | Length 10 characters |
| 6 | Public int ProductQuantity |  |
| 7 | Public double ProductPrice |  |
| 8 | Public string ProductID |  |

**Methods:**

|  |  |  |
| --- | --- | --- |
| **#** | **Method** | **Description** |
| 1 | Public void DistributorTrackingDetails(string DistributorID, DateTime DoOrder, DateTime DoDispatch, DateTime DoArrival ) | Use for tracking purpose of distributor |
| 2 | public double TotalPrice(int ProductQuantity, ProductPrice) | Returns total price of shipment |
| 3 | public void CancelOrder()=>bool | If true DistributorRefund(), Inventory Management, else continue |
| 4 | Public void DistributorBill() | TotalPrice, tax, Billing details |
| 5 | Public void DistributorPayment() | Will call tracking Details, Billing Details, inventory Management |
| 6 | Public void DistributorRefund() | Update payment/finance |