eBikes Purchasing

ERD for UX process

Vendors

PK	VendorID	int
	VendorName	nvarchar(100)
	Phone	nvarchar(12)
	Address	nvarchar(30)
	City	nvarchar(30)
	ProvinceID	char(2)
	PostalCode	nchar(6)

Parts

PK	PartID	int
	Description	varchar(40)
	PurchasePrice	smallmoney
	SellingPrice	smallmoney
	QuantityOnHand	int
	ReorderLevel	int
	QuantityOnOrder	int
FK	CategoryID	int
	Refundable	char(1)
	Discontinued	bit
FK	VendorID	int

PurchaseOrders

PK	PurchaseOrderID	int
	PurchaseOrderNumber	int
	OrderDate	datetime
	TaxAmount	money
	SubTotal	money
	Closed	bit
	Notes	nvarchar(100)
FK	EmployeeID	int
FK	VendorID	int

PurchaseOrderDetails

PK	PurchaseOrderDetailID	int
FK	PurchaseOrderID	int
FK	PartID	int
	Quantity	int
	PurchasePrice	money
	VendorPartNumber	nvarchar(50)

Possible UX Interface

Purchasing

Employee: Ken Fixit
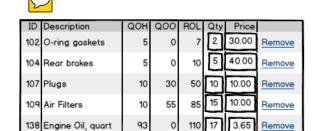
Vendor [Cycle Glass ▼] Get / Create PO

Vendor Name: Cycle Glass
City Located: Edmonton
Phone Number: 780.966.5896

Current Inventory

ID	Description	QOH	QOO	ROL	Buffer	Price	
103	Exhast System	24	0	6	18	250.00	Add
105	Front brakes	5	5	10	0	40.00	Add
106	Manifold	12	1	4	9	150.00	Add
126	Fuel Filter	56	0	10	46	18.65	Add
127	Brake Oil, pint	125	0	70	55	3.65	Add
130	bulbs, signal	200	0	100	100	2.95	Add
131	bulbs, running	185	0	100	85	1.95	Add
132	bulbs, front	185	0	100	85	2.95	Add

Current Purchase Order

ID	Description	QOH	QOO	ROL	Qty	Price	
102	O-ring gaskets	5	0	7	2	30.00	Remove
104	Rear brakes	5	0	10	5	40.00	Remove
107	Plugs	10	30	50	10	10.00	Remove
109	Air Filters	10	55	85	15	10.00	Remove
138	Engine Oil, quart	93	0	110	17	3.65	Remove

Update   Place   Delete   Clear

Subtotal   572.05   GST   28.60   Total   600.65

Event and Wiring Summations

VendorDetails Section:

Controls	Events
VendorDDL	OnSelectedIndexChanged / wired via ObjectDataSource • Call BLL; • Bind returned data to VendorDetails;
BLL Class(es) and Method (s)	
VendorController	List<VendorList> List_Vendors() • Retrieve a list of vendor names and vendor ids for DDL; VendorDDL_SelectedIndexChanged() • Retrieve a list of vendor information to display the vendor name, city, and phone#. Display in VendorDetails.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
Vendors (R)	VendorList (P)

Controls	Events
GetOrCreateOrder(Vendor), SearchArgID	OnClick / wired via ObjectDataSource • Move VendorDDL ID to SearchArgID; • Bind data to CurrentPurchaseOrder
BLL Class(es) and Method (s)	
PurchasingController	List<PurchaseOrderList> List_PurchaseOrders(int argid) • Retrieve the purchase order for the supplied vendor argument id. Return partId, description, quantityOnHand, quantityOnOrder, reorderLevel, quantity, purchasePrice ONLY IF the Purchase Order OrderDate and PurchaseOrderNumber is NULL; Add_PurchaseOrder() • A new order with suggested items will be generated by the system; Vendor Stock Items not on the displayed purchase order will be listed under Current Inventory. Display in CurrentPurchaseOrder, CurrentInventory.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrders(R, C), PurchaseOrderDetails(R, C)	PurchaseOrderList(P)

Current Purchase Order Section:

Controls	Events
PurchaseOrderListview (partId, description, quantityOnHand, quantityOnOrder, reorderLevel, quantity, purchasePrice)	OnClick / wired via ObjectDataSource • Validate data present; • call BLL; • Bind returned data to CurrentPurchaseOrder.
BLL Class(es) and Method (s)	
PurchasingController	List< PurchaseOrderDetailList > List_PurchaseOrderDetails() Retrieve the list part id, description, quantity on hand, quantity on order, reorder level, quantity and price for supplied purchase order. Display in CurrentPurchaseOrder.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrders(R), PurchaseOrderDetails (R)	PurchaseOrderList(P)

Controls	Events
PurchaseOrderListview (Subtotal, GST, Total)	None / wired via ObjectDataSource • Validate data present; • call BLL; • Bind returned data to CurrentPurchaseOrder.
BLL Class(es) and Method (s)	
PurchasingController	List< PurchaseOrderDetailList > List_PurchaseOrderDetails() Retrieve the list of items, their quantity and price for supplied purchase order. Return subtotal, GST, and total for those items. Display in CurrentPurchaseOrder.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrderDetails (R)	PurchaseOrderDetailList(P)

Controls	Events
Remove Item (Remove link in current purchase order listview)	OnClick • Removes that listview row item from the CurrentPurchaseOrder
BLL Class(es) and Method (s)	
PurchasingController	List< PurchaseOrderDetailList > List_PurchaseOrderDetails() Retrieve the list of items, their quantity and price for supplied purchase order. Return subtotal, GST, and total for those items. Display in CurrentPurchaseOrder.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrderDetails(R)	PurchaseOrderDetailList(P)

Controls	Events
Update Order (Update Button)	OnClick

	• Processes the current purchase order and updates
BLL Class(es) and Method (s)	
PurchasingController	Update_PurchaseOrder() Updates the existing purchase order details with the new current purchase order details.
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrderDetails(U)	PurchaseOrderDetails(E)

Controls	**Events**
Place Order (Place Button)	OnClick • Processes the current purchase order and generates updates (date and PO#)
BLL Class(es) and Method (s)	
PurchasingController	Place_Order() Processes order and generates a current date and a purchase order number
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrders (U)	PurchaseOrders(E)

Controls	**Events**
Delete Order (Delete Button)	OnClick • Removes the current displayed purchase order
BLL Class(es) and Method (s)	
PurchasingController	Delete_Order() Removes the current displayed purchase order from PurchaseOrders and PurchaseOrderDetails
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**
PurchaseOrders (D)	PurchaseOrders(E), PurchaseOrderDetails(E)

Controls	**Events**
Clear Order (Clear Button)	OnClick • Clears all data on the current page
BLL Class(es) and Method (s)	
PurchasingController	Clear_Click() Clear CurrentPurchaseOrder Section of all data, Clear CurrentInventory of all data, Clear VendorDetails area of all data. Display in VendorDetails, CurrentPurchaseOrder, CurrentInventory
SQL Table(s): (C,R,U,D)	**Entities/DTOs/POCOs**

Current Inventory Section:

Controls		Events
InventoryGridview (partId, description, quantityOnHand, quantityOnOrder, reorderLevel, buffer, purchasePrice)		None / wired via ObjectDataSource • Validate data present; • call BLL; • Bind returned data to CurrentPurchaseOrder.
BLL Class(es) and Method (s)		
PurchasingController	List< PurchaseOrderDetailList > List_PurchaseOrderDetails() Retrieve the part id, description, quantity on hand, quantity on order, reorder level and price for supplied purchase order, buffer is calculated then displayed. Display in CurrentInventory.	
SQL Table(s): (C,R,U,D)		**Entities/DTOs/POCOs**
Parts(R),PurchaseOrders(R), PurchaseOrderDetails (R)		PurchaseOrderList(P)

Controls		Events
Add Item (Add link in inventory gridview)		OnClick • Adds that gridview row item to the CurrentPurchaseOrder listview
BBL Class(es) and Method (s)		
PurchasingController	List< PurchaseOrderDetailList > List_PurchaseOrderDetails() Retrieve the part id, description, quantity on hand, quantity on order, reorder level and price for that item row in the gridview. Quantity is set to 1 as default in the current purchase order. Display in CurrentInventory.	
SQL Table(s): (C,R,U,D)		**Entities/DTOs/POCOs**
Parts(R), PurchaseOrderDetails(R)		PurchaseOrderDetailList(P)

You seem to have a handle on this subsystem. Remember your database modifications are done as transactions in the bll methods. As a single transaction in each method.