Legend:

- **V** = versioned
- **D** = decorator
- outside e-commerce
- A →B = class A extends B
- one to many
- one to one
- many to many
- implied rel.

Member
- FirstName
- Surname
- Email
- Password
- ...

Payment
- Status
- Amount
- Message
- IP
- ProxyIP
- PaidForID
- PaidForClass
- PaymentDate
- ExceptionError

Order
- SessionID
- UseShippingAddress
- CustomerOrderNote
- CancelledByID (member)

OrderStep
- Name
- Code
- Description
- CustomerMessage
- CustomerCanEdit
- CustomerCanCancel
- CustomerCanPay
- ShowAsUncompletedOrder
- ShowAsInProcessOrder
- ShowAsCompletedOrder
- HideStepFromCustomer
- Sort

OrderStatusLog
- Title
- Note
- EmailCustomer
- EmailSent
- InternalUseOnly
- AuthorID (Member)

AccountPage

ProductGroup
- LevelOfProductsToShow
- NumberOfProductsPerPage
- DefaultSortOrder

Page (V)

OrderEmailRecord
- From
- To
- Subject
- Content
- Result

ShippingAddress
- ShippingPrefix
- ShippingFirstName
- ShippingSurname
- ShippingAddress
- ShippingAddress2
- ShippingCity
- ShippingPostalCode
- ShippingPhone
- ShippingMobilePhone

BillingAddress
- Prefix
- FirstName
- Surname
- Address
- Address2
- City
- PostalCode
- Phone
- MobilePhone

CartPage
- ContinueShoppingLabel
- ProceedToCheckoutLabel
- CurrentOrderLinkLabel
- LoginToOrderLinkLabel
- SaveOrderLabel
- LoadOrderLinkLabel
- DeleteOrderLinkLabel
- NoItemsInOrderMessage
- NonExistingOrderMessage

Product
- Price
- Weight
- Model
- Quantifier
- FeaturedProduct
- AllowPurchase
- InternalItemID
- NumberSold
- ImageID (Image)

OrderAttribute
- CalculatedTotal
- Sort
- GroupSort

EcommerceCountry
- Code
- Name
- DoNotAllowSales

EcommerceRegion
- Code
- Name
- DoNotAllowSales

SiteConfigEcommerceExtras (D)
- ShopClosed
- ShopPricesAreTaxExclusive
- ShopPhysicalAddress
- ReceiptEmail
- ReceiptSubject
- DispatchEmailSubject
- PostalCodeURL
- PostalCodeLabel
- NumberOfProductsPerPage
- OnlyShowProductsThatCanBePurchased
- ProductsHaveWeight
- ProductsHaveModelNames
- ProductsHaveQuantifiers
- ProductsAlsoInOtherGroups
- DefaultProductImageID (Image)
- EmailLogo (Image)

CheckoutPage
- HasOrderSteps
- InvitationToCompleteOrder

TermsPage

Product_OrderItem (V)
- no additional fields

OrderItem
- Quantity
- Version
- BuyableID

OrderModifier
- Name
- TableValue
- HasBeenRemoved

Order Confirmation Page
- StartNewOrderLinkLabel

PAGES:
Account Page: allows user to update their member details and review a list of previous orders.

The Cart Page shows the editable order. Shop administrators can set labels and messages that go with actions such as "go to checkout", "save order", etc... The Cart Page links to a "continue shopping" page. The Checkout Page is like the Cart Page but allows the customer to "place" the order.

The Order Confirmation Page is for completed orders (showing them as read-only).

We separate the three pages so that each of them can be formatted differently.

PRODUCTS
The field Product.Quantifier refers to things like "per week".

The Product Group pages can be used to configure the way its child products are shown.

The SiteConfigEcommerce can be used to hide/show CMS fields like weight.

Product variations can be found in a separate module (ecommerce_product_variations).

CORE MODEL:
The core of eCommerce is kept very lean. The OrderAttribute.CalculatedValue represents the total for each row in the list of items (e.g. products) and modifiers (e.g. tax, delivery charge) of the order. This allows fast calculation of the total and subtotal.

Order Items link to buyables via a combination of BuyableID and their classname (e.g. BuyableID = 10 for Product_OrderItem ... links to buyable "Product" with ID = 10.)

The strength in this model is that any DataObject can be turned into a buyable (product) and that Order Modifiers can add any type of addition (e.g. delivery) / reduction (e.g. coupon) / no change data (e.g. customer note) to an order.

The SiteConfigEcommerceExtras extends the SiteConfig and can be used to configure the shop.

PROCESS:
OrderStep and OrderStatusLog are extended into a whole bunch of classes. Each step in the order (e.g. dispatch order) and each type of log entry (e.g. dispatch log) has its own class - including additional fields (e.g. delivery ticket number).

The Order Step describes the current state of the order, checks if the order is ready to execute the current step, executes it and tries to move the order to the next step. The log entry keeps a trail of those steps.

The steps and log entries can, and should be, customised per site. It can include a step to communicate with a third-party account system, a log record of the exchange rate or whatever is required for the site at hand.

ORDER ADDRESS
The Billing + Shipping Address are kept separate. This is mainly to simplify development. Each order has its own Billing + Shipping address to allow adjustments to be made on a "per order" basis, while PHP pre-populates a new address from any previous ones.

EcommerceCountry + Region can also be used by other modules and modifiers (e.g. restrict sales of products, adjust tax, etc...).
The EcommerceRegion is optional and may be used, for example, for states within a country.