**ColoCraft Trading Company EERD Writeup**

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**Design**

Products/Services

Each of the three revenue streams were considered in the model. Hops are sold to outside suppliers directly through the Lupulin Exchange, so these transactions have been modeled as a direct many-to-many relationship. Beers and other complementary products have been modeled as subtypes of the product supertype. Product sales have been modeled using entities for payments and for orders. Finally, event hosting and cottage rentals are tracked for individual guests, along with the charge for the guest’s stay.

Personnel

Basic information is stored about the employees of CCTC. For employees who are brewers or drivers, additional licensing/certificate information is stored. Employees who work to grow hop crops or who package products are also tracked.

Brewery Holdings and Hop Varieties

Information about hop crops in stored and connected to information about individual varieties of crops. Information about various beers produced by CCTC is also stored.

Beer Products and Packages

Information is stored about beer products as well as their packaging. Vendors who supply packaging are also tracked.

Customers

Customers are split into several subtypes: individual and business. Individuals are also divided into event guests, cottage guests, and tasting room guests. Customer payments and orders are also tracked.

**Assumptions**

The following assumptions were made in the creation of this model:

* CCTC would like to store information on potential food and hop suppliers and packaging vendor who they haven’t ordered from yet.
* Beer from one batch could be packaged into one or more beer products.
* Food might need to be packaged.
* A CCTC employee could potentially be a brewer and a driver.
* CCTC would like information about the date of visit for customers that come directly to the tasting room.
* CCTC would like to store information about prospective customers.
* CCTC wants to track charges for events and cottage rentals.
* CCTC wants to track information about date ordered and date received for hops orders.

Most of these assumptions influenced the participation constraints of the associated relationship.

**Attributes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Product** | **Name** | **Product** |
| BeerAgingLength | Beer aging length | HopCropSize | Size of hop crop (acres) |
| BeerAgingMethod | Beer aging method | HopCropWeight | Weight of hop crop (pounds) |
| BeerBatchBBID | Beer batch unique ID | HopHID | Hop unique ID |
| BeerBeID | Beer unique ID | HopHIS | Hop HIS |
| BeerQuantityHops | Quantity of hops used in beer | HopMyrcene | Hop myrcene |
| BeerQuantityMalt | Quantity of malt used in beer | HopSKU | Hop SKU number |
| BeerStorageReq | Beer storage requirements | HopTotalOil | Hop total oil |
| BeerVarietyHops | Variety of hops used in beer | HopVariety | Variety of hop |
| BeerVarietyMalt | Variety of malt used in beer | IndividualDOB | Individual date of birth |
| BrewerBrID | Brewer unique ID | IndividualFirstName | Individual first name |
| BrewerCertDate | Brewer certification date | IndividualIID | Individual unique ID |
| BrewerCertLevel | Brewer certification level | IndividualLastName | Individual last name |
| BrewerReCertOutcome | Brewer recertification outcome | OrderDate | Date order was placed |
| BusinessBuID | Business unique ID | OrderLineOLID | Order line unique ID |
| BusinessCompanyName | Business company name | OrderLineQuantity | Quantity of item in order line |
| BusinessDiscount | Discount applied to business | OrderOID | Order unique ID |
| BusinessResaleLicenseNumber | Business resale licence number | OrderPrice | Total price of order |
| BusinessTIN | Business tax identification number | OrderShippingStatus | Shipping status of order |
| CottageGuestCGID | Cottage guest unique ID | PackageOrderDateOrdered | Date packaging order was placed |
| CottageGuestCharge | Total charge for cottage reservation | PackageOrderDateReceived | Date packaging order was received |
| CottageGuestLength | Length of cottage reservation | PackageOrderLineCapacity | Capacity of packaging being ordered |
| CottageGuestStart | Start date of cottage reservation | PackageOrderLineColor | Color of ordered packaging |
| CustomerAddress | Customer physical address | PackageOrderLinePOLID | Package order line unique ID |
| CustomerCID | Customer unique ID | PackageOrderLineQtyOrdered | Quantity of packaging ordered |
| CustomerEmail | Customer email | PackageOrderLineQtyReceived | Quantity of packaging received |
| CustomerPhone | Customer phone number | PackageOrderLineShape | Shape of ordered packaging |
| CustomerPreference | Customer product preferences | PackageOrderLineType | Type of packaging being ordered |
| CustomerShippingAddress | Customer shipping address | PackageOrderLineUnitCost | Unit cost of ordered packaging |
| DriverCDLExpDate | Driver CDL expiration date | PackageOrderPOID | Packging order unique ID |
| DriverCDLStatus | Driver CDL status | PackagingVendorAddress | Address of packaging vendor |
| DriverDID | Driver unique ID | PackagingVendorName | Packaging vendor name |
| EmployeeAddress | Employee address | PackagingVendorPhone | Phone number of packaging vendor |
| EmployeeEID | Employee unique ID | PackagingVendorVID | Packaging vendor unique ID |
| EmployeeEmail | Employee email address | PaymentAmount | Amount of payment |
| EmployeeEmConEmail | Employee emergency contact email address | PaymentDate | Date of payment |
| EmployeeEmConPhone | Employee emergency contact phone number | PaymentPID | Payment unique ID |
| EmployeeEmContact | Employee emergency contact | PaymentType | Type of payment |
| EmployeeName | Employee name | ProductDescription | Description of product |
| EmployeePhone | Employee phone number | ProductName | Name of product |
| EmployeePosition | Employee position | ProductPID | Product unique ID |
| EmployeeSSN | Employee social security number | ProductPrice | Price of product |
| EmployeeStartDate | Employment start date | ProductSize | Size of product |
| EmployeeStartPayRate | Employee initial rate of pay | ProductSKU | Product SKU |
| EventGuestCharge | Total charge for event | ProductStyle | Style of product |
| EventGuestDate | Date of reservation | SupplierSID | Hop supplier unique ID |
| EventGustEGID | Event guest unique ID | SupplyOrderDateOrdered | Date supply order was placed |
| FoodFID | Food product unique ID | SupplyOrderDateReceived | Date supply order was received |
| HopAlpha | Alpha acid % | SupplyOrderLineItem | Item in supply order line |
| HopBeta | Beta acid % | SupplyOrderLineQuantity | Quantity of item in supply order line |
| HopCropHCID | Hop crop unique ID | SupplyOrderLineSOLID | Supply order line unique ID |
| HopCropLocation | Hop crop location | SupplyOrderSOID | Supply order unique ID |
| HopCropMoisture | Hop crop moisture % | TastingRoomGuestDateofVisit | Tasting room date of visit |
| HopCropOwner | Owner of hop crop location | TastingRoomGuestTRGID | Tasting room guest unique ID |