**SALESFORCE CPQ** [210.15.12] **- OBJECT MODEL - V1.1 - MARK CANE - 2018-03-24**

Standard Object
Custom Object
Lookup Relationship
Master Detail Relationship

This model includes Primary Objects and relationships only.

For information purposes exclusively.

## Quote Templates

**Line Column**
SBQQ__LineColumn__c
Column Specification within the Quote Line Item output.
...

Field Name
Style Options (Font and Margin)
Width (must add cumulatively to 100%)
Column Options (Rollup, Conditional Print, Hide on Product Options, Summary Level, Function and Label)
Roll Up (to the master line, if set on the template)

**Quote Templates:**
Displayed for Preview or Generate Document.
All Output fields must be on the Quote object.

Custom Tab
Related List

**Quote Template**
SBQQ__QuoteTemplate__c
Quote Document Template. Selectable during Document Generation.
...

Header Content
Footer Content

Related List

**Template Section**
SBQQ__TemplateSection__c
Content section within a specific Template output.
...

Content (lookup)
Display Order
Group Field (Product Category, Subscription Family)
Conditional Print Field
Page Break Behaviour (Before, After, Both)
Filtering Information (Field, Value, Operator)

Related List

**Section filtering:**
Use filtering on LineItems content sections to break the line items into separate sections.

**Quote Template Fields:**
Is Default?
Logo Document Id
Page Information (Width, Height & Margins)
Header/Footer Information (Height & Content, T&Cs)
Corporate Information
Style Information (Font, Size and Colour)
Group Style Information (Font, Size and Colour)
Section Titles
Print Options (Hide/Show Options)
Line Columns (Related List)
Sections (Related List)
Additional Documents (Related List)

Custom Tab

**Template Content**
SBQQ__TemplateContent__c
Reusable Content.
...

Content Name
Type:
HTML - Font, Markup
LineItems - Font, Table Type (Standard, Price Dimensions as Cols or Row with Summary)
Quote Terms - Font
Custom - Font, Custom Source=VF Page Url
Template Top - HTML Editor, merge fields
Template Bottom - HTML Editor, merge fields

Custom Tab

**Quote Term**
SBQQ__QuoteTerm__c
Quote Specific or Reusable Legal Terms with Conditional Logic.
...

Active
Locked
Body
Status (Draft, In Review, Approved, Rejected)
Conditions Met (All, Any Custom)

**Merge fields:**
{!template.[field]} >> reference Quote Template fields.
{!quote.[field]} >> reference Quote Template fields.

**Quote Terms:**
Quote terms must be added to Template Content then added to a Template Section. Evaluation of the related Term Conditions controls inclusion in output.

Related List

**Additional Document**
SBQQ__RelatedContent__c
Marketing Content Product Specifications, Case Studies etc.
...

Name
Display Order
Required
External Id (Document or Salesforce Content Record ID - **mandatory**)

**Term Conditions**
SBQQ__TermCondition__c
Logical Condition used in determining whether Quote Terms are printed.
...

Field or Variable
Operator
Value

**Line Item Summaries:**

Quote Template:
Group Field / Sub Group Field: Grouping QLI for totals.
Roll-Up Field: Rollup into a single line where QLI have the same value in the value specified.
Total Field: Field to Total (Net Total Price)
Subtotal Field: (Regular Total Price)
Line Sort Field

Line Column:
Rollup?
Summary Level
Summary Function (Sum)
Summary Label

**Quote Document**
SBQQ__QuoteDocument__c
Versioned Generated Quote Document instance. Audit Purposes - Admin Only.
...

Attachment Id
Electronic Signature
Signature Status
Paper Size

**Advanced Approvals:**

Separate Package - Advanced Approval logic for Opportunity or Quote records.

Points of difference:
Approval Chains (parallel and independent)
Dynamic Approvers (assign based on a specific parameter - e.g. regional approval paths)
Smart Approvals (prior acceptances not re-requested on resubmission)

Steps:
(0) Setup Approvers - Users and Groups (by Public Group Id)
(1) Create Approval Chain (Target Object) "Finance", "Sales", "Legal" etc.
(2) Create Approval Rules
Target Object
Templates (Request, Approve, Reject, Recall)
Approver
Approval Chain

(3) Add Approval Conditions
Tested Field
Filter Field/Value/Approval Variable

Quote shows Approvers and current Approval Status in Related List
Hide the "Generate Document" button until the Quote is Approved.

- Approvers and Approver Groups
  - Parallel and Serial Approvers at each Tier.
  - Record Status; { Pending, Approved, Rejected, Recalled }.
  - Approval Record for each Approver with Status; { Assigned, Requested, Approved, Rejected, Revoked }.
  - Approver is either User or Public Group Id. Approver has Unanimous flag.
- Approval Chains and Email Templates
  - Approval Chain functions as a parallel path alongside a Serial Approval. All chained approvals executed in parallel.
  - Visualforce email templates only.
- Approval Rules
  - Approval Rule has parent Approval Chain and Approver.
  - Approval Rule has Conditions and Email Notifications (templates) and Exclusions (statuses, date ranges.
- Approval Variables and Submittal
  - Approval Variable; Target Object, Type (Summary) etc.
  - Submit for Approval button (Opportunity and Quote).

## Guided Selling

**Quote Process**
SBQQ__QuoteProcess__c
Guided Selling Process Definition
...

*The Quote Process ID field indicates a Quote Process should be used - set by workflow.*

**Process Input**
SBQQ__ProcessInputValue__c
Question (or Prompt) within a guided Quote Process
...

Label
Input Field
Display Order
Conditions Met; All, Any

Twin fields required on QLI

**Process Input Values**
SBQQ__ProcessInputValue__c
Quote Level Values for a given Process Input
...

**Process Input Condition**
SBQQ__ProcessInputCondition__c
Visibility Conditions that make the question flow dynamic
...

Process Input
Master Process Input (value determines visibility of the Process Input)
Operator
Value

**Summary Variables:**
Similar to RSF but no fields required. Aggregate a collection of products on a Quote.

Aggregate Field = Quantity, List Price
Where Product Code or Family = XYZ
Max, Min, Sum, Average, Count

Used in :Product Rules, Price Rules, Validation Rules, Dynamic Quote Terms

Combine With [another SV]
Composite Operator (+ - / *)
Variable Element - SV or Value Element - literal

Custom Tab

**Summary Variable**
SBQQ__SummaryVariable__c
Variable that summarise Quote Line items
...

Field
Function
Composite Operator (another Summary Variable)
Filter Field
Filter Value
Operator
Scope

**Dynamic SKU:**

Product Option Fields:
Assign value to Component Code field
Assign value to Component Code Position

Product Field:
Add expression to the Component Code Pattern
e.g. 0000[10]-[20]-[30]-123

Output is stored in the Package Product Code field on the Parent Bundle Quote Line Item.

**Quote Fields:**
Primary
Type { Quote, Renewal, Amendment, Re-Quote }
Status { Draft, In Review, Approved, Denied, Presented, Accepted, Rejected }
Expires On
Margin %

**Quote Line Fields:**
Product
Quantity
Margin
Markup
Group
List Total / Unit Price
Net Total / Unit Price
Customer Total / Unit Price
Gross Profit
Start Date
End Date

**Product Fields:**
Component
Quantity Editable
Hidden - not visible on the Quote Document
Asset Conversion { One per Quote Line, One per Unit }
Exclude from Opportunity
CPQ Configuration > Option Layout (Wizard, Sections, Tabs)
CPQ Configuration > Option Selection Method (Click, Add, Dynamic)
Pricing > Pricing Method { List, Cost, Block, Percent of Total }
Pricing > Exclude from Percent Of Total
Subscriptions > Subscription Pricing
Subscriptions > Percent of Total
Upgrades > Upgrade Source
Upgrades > Upgrade Target
Renewals > Renewal Product

Custom Tab

**Quote**
SBQQ__Quote__c
A Customer specific Quote.
...

**Quote Line**
SBQQ__QuoteLine__c
Individual Quote Line Item.
...

**Quote Line Group**
SBQQ__QuoteLineGroup__c
Custom Group of Quote Line Items.
...

Customer Total
List Total
Net Total
Markup %
Billing Frequency

## Pricing & Discounts

**Opportunity**
Sales Cloud Sales Process.
...

**Product**
Product2
Products that represent Goods or Services sold by the Company.
...

**Price Book Entry**
PriceBookEntry
Product List Price per Pricebook.
...

**PriceBook**
PriceBook2
Standard and Custom Pricebooks.
...

**Price Dimensions:**
Subscription Products that contain a segment
Product > Price Dimensions Related List
MDQ = Multi-Dimensional Quote

Product Rules not Product Options with MDQ
Can't be used on Parent Bundle Product
Segment Index = 0 activation fee, 1 = 1 Year 1…
One time Price Dimension requires at leat one Y, M or Q Price Dimension

**Pricing Waterfall:**

**List Price**
- System Discounts
**Regular Price (or Inject Special Price)**
- Additional Discounts
**Customer Price**
- Partner Discounts
**Partner Price**
- Distributor Discounts
**Net Price**

**Percentage of Total Pricing Method:**
Percent of Total Pricing allows a user to set a Percentage on which the Product's List Price will be calculated based on the Quote, Quote Line Group, or Product Bundle's Total.
Percent of Total Pricing is calculated based on non-subscription Products and Products marked as Include in Percent of Total.

Product Fields:
% to Apply
Percent of Total Base: List, Regular, Customer, Net
Percent of Total Category - set on product and products included in the calculation
Percent of Total Target - limit to a single product
Percent of Total Constraint - List Price is minimum or maximum
Include in Percent of Total
Exclude from Percent of Total

**Subscription**
SBQQ__Subscription__c
Customer Subscription to a Product or Service.
...

*Created for Subscription Products when Opportunity is set to Contracted.*

**Account**
Customers, Suppliers, Partners or Distributors.
...

Customer, Distributor, Partner

**Price Dimension**
SBQQ__Dimension__c
Subscription Product Price Segment Type (Year, Month etc.). Record per Currency.
...

Type { Year, Quarter, Month, One-time }
Quantity Editable
Quantity Scale
Unit Price
Price Editable
Taxable

**Block Price**
SBQQ__BlockPrice__c
Quantity Block Pricing - Quantity Ranges
...

Lower Bound (inclusive)
Upper Bound (exclusive)
Effective Date
Expiration Date

**Price Rule**
SBQQ__PriceRule__c
Automate price calculations and update Quote Line fields.
...

Evaluation Scope { Configurator or Calculator}
Conditions Met { All, Any or Custom }

Configurator Evaluation Event { None (save and leave), Save (on save), Edit (realtime within Configurator) }

**Price Condition**
SBQQ__PriceCondition__c
Use filters, variables and formulas to specify conditions
...

Object { Quote, Quote Line, Product Option, Summary Variable }
Field (Product Code)
Tested Variable (Summary Variable)
Tested Formula
Filter (Operator, Type, Value, Variable, Formula)

**Contracted Pricing:**
Separate record per currency
Contracted Prices are inherited down the Account hierarchy
(to block inheritance set Ignore Parent Contracted Prices=TRUE)
EffectiveContractedPrice Visualforce page
Overlaps not allowed

**Asset**
Customer Asset (Product)
...

*Created for Non-Subscription Products when Opportunity is set to Contracted.*

**Contract**
Commercial Contracts.
...

Master Contract

**Cost**
SBQQ__Cost__c
Per Currency Cost Price.
...

Active
Unit Cost

*Used in Cost plus Margin pricing*

**Contracted Price**
SBQQ__ContractedPrice__c
Per Customer Pricing. Takes Precedence.
...

Specific Product or Filter (Field=Product, Product Code, Family > Operator > Value)
Price
Discount %
Effective Date -> Expiration Date
Discount Schedule
Ignore Parent Contracted Prices

Custom Tab

**Price Action**
SBQQ__PriceAction__c
Actions taken when the Price Rule fires. Usually a discount, applied or price injection.
...

Target Object { Quote, Quote Line, Product Option }
Target Field (Unit Price, Discount %/£, Markup %/£)
Value
Formula
Source Field
Source Lookup
Source Variable (Summary Variable)

**Price Rules:**
Price Rules automate price calculations and update quote line fields. Configure Price Rules to automatically discount Quote Lines based on Product or Quote attributes or to inject pricing when Quantity hits a level.

## Products & Bundles

**Discount Schedules:** specify volume discounts. These volume discounts are based on a % of the product's price (or specific Amount) to be discounted using the quantity purchased or term. Set the quantity or term ranges in tiers of different discount values.

Discount tiers -
Lower Bound IS INCLUSIVE
Upper Bound IS NOT INCLUSIVE

Slab = Blended (1-10 5%, 11-20 10% etc.)
Range = single tier applied

Can be Product or Account specific
Quantity Discounted or Term Discounted.

Custom Tab

**Discount Schedule**
SBQQ__DiscountSchedule__c
Automatic Volume Discount Schedule
...

Type: { Range - (quantity tier), Slab (quantity tier plus preceding tiers i.e. Blended)
Discount Unit: % or Amount or Price
Aggregation Scope: Quote, or Quote Line Group
Cross Product: consider all product or features that share the same schedule
Cross Orders:

**Discount Tier**
SBQQ__DiscountTier__c
Discount Tier (Quantity Range) within a Schedule
...

Lower
Upper
Discount Amount
Discount %

*Boundaries: inclusive on Lower Bound and exclusive on Upper Bound.*

**Feature**
SBQQ__ProductFeature__c
Headers that group related Options.
...

Min Options
Max Options
Category (picklist)
Configuration Field Set (Product FieldSet) - fields display in Quote Line Editor.
Option Selection Method - { Click, Add, Dynamic }

Configuration Rule: Product ID
EQUALS
Product Feature: Configured SKU ID

**Configuration Rule**
SBQQ__ConfigurationRule__c
Product Rule links to a Product Bundle.
...

Parent Bundle Condition Level
Child Bundle Condition Level
Child Bundle Action Level

Custom Tab

**Product Rule**
SBQQ__ProductRule__c
Viability Check for Product Configuration.
...

Type:
{ Validation (requires Message)
Alert (requires Message)
Selection
Filter }
Evaluation order
Evaluation events; Load, Edit, Save, Always
Scope: { Product (Inside Configurator)
Quote or Quote LineItem (Outside Configurator) }
Conditions Met: { All, Any
or Custom (Advanced Formula field) }

**Error Condition**
SBQQ__ErrorCondition__c
Logical condition that causes the Product Rule to FAIL.
...

Tested Object
Tested Field
Operator
Value
Tested Attribute
Tested Variable

Product Option: Configured SKU ID
EQUALS
Feature: Configured SKU ID

**Product Option**
SBQQ__ProductOption__c
Product added to a Bundle.
...

Constaining Option
Constained Option

Type { Component - fully dependent; qty and existence, Accessory - existence only, Related Product - independent}
Unit Price
Bundled, Required, Selected
Quote Line Visibility
Apply Immediately
Apply Immediately Context (Always, On Selection, On Quantity Change)
Discounted by Package
Uplifted by Package
Package Product Code; Component Code, Component Code Position?

**Option Constraint**
SBQQ__OptionConstraint__c
Constraints govern which Product Options must or must not be selected together.
...

Type { Dependency (must)
Exclusion (can't) {
Check Prior Purchases
Group

**Product Action**
SBQQ__ProductAction__c
Actions taken when the Product Rule FAILS.
...

Type: { Add, Remove, Show, Hide, Enable, Disable }

Product (to target)

Filter Field (target all Options that match the defined filter)
Operator
Filter Value
Value Object
Value Field

**Contract Amendments and Renewals:**

- Contract Generation
  - **User** creates Opportunity.
  - **User** creates Quote ([Primary]=TRUE, [Start Date] & [Subscription Term] set) linked to Opportunity.
  - **User** adds Products (1xSubscription Type (e.g. Warranty), 1xAsset Type (e.g. Printer)).
  - **User** sets Opportunity field [Contracted]=TRUE.
  - **CPQ** generates Contract, Subscription (related to Contract) and Asset records.
  - **User** activates the Contract.
- Contract Amendment
  - **User** clicks Contract "Amend" button.
  - **CPQ** creates Amended Opportunity (e.g Amendment for contract #00000101).
  - **CPQ** creates Amended Quote.
  - **CPQ** displays Quote Line Editor (Configurator).
  - **User** adds Products, configures Quote Lines and saves the Quote.
  - **User** sets Amendment Opportunity to [Contracted]=TRUE.
  - **CPQ** creates New Subscription for Existing Contract.
- Contract Renewal
  - **User** sets Contract [Renewal Forecast]=TRUE.
  - **CPQ** creates Renewal Opportunity linked to Renewed Contract and Forward Contract.
  - **CPQ** creates Renewal Quote linked to Contract.

**Configuration Attributes:** are inputs located above or below the Product Option list in the Configurator that enable convenient setting of the value of a field shared by one or more Product Options on a selected Bundle .

For example, adjust the Location or Discount % of all Product Options in a Bundle from within the Configurator.

Custom Tab

**Configuration Attribute**
SBQQ__ConfigurationAttribute__c
Discount, Unit Price etc. Applied to all Product Options within a Bundle or Feature.
...

Row
Column (1 to 3)
Position { top (above) or bottom (below) Product Options) }
Target Field
Required
Auto Select
Default Object & Field

**Product Features:**
Category is the primary grouping - this groups Features in the Quote Line Editor, which in turn groups Product Options.
Discount Schedule at Feature level overrides Product level.
Dynamic bundles are based on a Feature.

**Option Constraints:**
Override Product Rules
Groups enable AND logic to be applied where 2 options impact a 3rd option

**Configuration Attributes:**
Make changes to fields across Product Options within Bundle - spend less time in the Configurator.

**Product Rules:**
Evaluate Quote Products against Conditions to validate configuration.
Error messages appear in the Quote Line Editor.
Real-time Rule Processing (Apply Immediately flag on the Product Option)
Note: Option Constraints Override Product Rules

Validation Rules: Scope=Quote.
Configuration Rules: Bundle Specific Rules.
Filter Rules: Pre filter products for Dynamic Product Bundles.
Alert Rules: Like validation but allow continuation.

Use cases:
Add a Product to a Bundle based on Conditions.
Display an Error if configuration is not viable or simply alert the Agent.

**Dynamic Bundles:**
Product Feature with Option Selection Method = Dynamic
Dynamic Option Filter Field Set : Product FieldSet containing Code, Name and Family
Dynamic Option Lookup Field Set : Product FieldSet containing Code, Name and Desc
There are no Product Option records.
Use Product Rules to validate the configuration.