MIS 3140  
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A2Z Salon Inc.

List of Entities and Business Rules

List of Entities

* Store
* Customer
* Product
* Beautician
* Service
* Appointment
* Credit Card
* Check Payment
* Cash Payment
* Order
* Promotion
* Zip Code
* Certificate
* Preference

**Bridge Entities:**

* Beautician Store
* Store Service
* Store Product
* Order Service
* Order Product
* Credit Card Payment
* Customer Promotion
* Beautician Certificate

Business Rules

A Store can generate zero to many Orders

Each Order belongs to only one Store

A Store can schedule zero to many Appointments

Each Appointment can only be scheduled by one Store

A Store can offer zero to many Services

Each Service can be offered at zero to many Stores

* + A Store can offer zero to many Store Services
  + Each Store Service can only be offered at one Store
  + A Service can belong to zero to many Store Services
  + Each Store Service can only belong to one Service

A Store can sell zero to many Products

Each Product can be sold at zero to many Stores

* + A Store can sell zero to many Store Products
  + Each Store Product can only be sold at one Store
  + A Product can belong to zero to many Store Products
  + Each Store Product can only belong to one Product

A Store can employ zero to many Beauticians

Each Beautician can work for one to many Stores

* + A Store can have zero to many Beautician Stores
  + Each Beautician Store can only belong to one Store
  + A Beautician can have zero to many Beautician Stores
  + Each Beautician Store can only belong to one Beautician

An Order can only belong to one or no Appointment

Each Appointment can only belong to one Order

An Order can be paid with zero to many Check Payments

Each Check Payment can only pay for one Order

An Order can be paid with one or no Cash Payment

Each Cash Payment can belong to only one Order

An Order can be paid with zero to many Credit Cards

Each Credit Card can pay for zero to many Orders

* + An Order can have zero to many Credit Card Payments
  + Each Credit Card Payment can only pay for one Order
  + A Credit Card can be used for zero to many Credit Card Payments
  + Each Credit Card Payment can only belong to one Credit Card

An Order can have zero to many Services

Each Service can belong to zero to many Orders

* + An Order can have zero to many Order Services
  + Each Order Service can only belong to one Order
  + A Service can belong to zero to many Orders Services
  + Each Order Service can only belong to one Service

An Order can have zero to many Products

Each Product can belong to zero to many Orders

* + An Order can have zero to many Order Products
  + Each Order Product can only belong to one Order
  + A Product can belong to zero to many Order Products
  + Each Order Product can only belong to one Product

A Customer can make zero to many Cash Payments

Each Cash Payment can only belong to one Customer

A Customer can make zero to many Check Payments

Each Check Payment can only belong to one Customer

A Customer can use zero to many Credit Cards

Each Credit Card can only belong to one Customer (created CreditCardID PK to solve for a Customer paying for another Customer's Order, i.e., Mom paying for daughter, or wife using Husband’s credit card)

A Customer can place zero to many Orders

Each Order can only belong to one Customer

A Customer can schedule zero to many Appointments

Each Appointment can only be scheduled by one Customer

A Customer can receive zero to many Promotions

Each Promotion can belong to zero to many Customers

* + A Customer can have zero to many Customer Promotions
  + Each Customer Promotion can only belong to one Customer
  + A Promotion can belong to zero to many Customer Promotions
  + Each Customer Promotion can only belong to one Promotion

A Promotion can be applied to zero to many Order Services

Each Order Service can have only one or no Promotion

A Promotion can be applied to zero to many Order Products

Each Order Product can have only one or no Promotion

A Beautician can be scheduled for zero to many Appointments

Each Appointment can only be scheduled with one Beautician

A Beautician can be associated with zero to many Orders

Each Order can be associated with zero or one Beautician

A Beautician can manage zero to many to Stores

Each Store can only be managed by one Beautician

A Beautician can have zero to many Certificates.

Each Certificate can be held by zero to many Beauticians.

* + A Beautician can have zero to many Beautician Certificates.
  + Each Beautician Certificate can only belong to one Beautician.
  + A Certificate can belong to many Beautician Certificates.
  + Each Beautician Certificate can only belong to one Certificate.

A Zip Code is associated with zero to many Stores

Each Store has only one Zip Code

A Zip Code is associated with zero to many Customers

Each Customer has only one Zip Code

A Zip Code is associated with zero to many Beauticians

Each Beautician has only one Zip Code

A Customer can have one or no Preference

A Preference can only belong to one Customer