Class Diagram

A class diagram illustrates the classes and the relationships among those classes. Classes refer to the people, places, and things which the system will capture information. A class is like a blueprint for a house and we create instances from it known as objects. An object is like the particular house we create from the blueprint. The Customer class contains attributes that describe it like first name, last name, street address, etc. It also contains methods that describe the behavior associated with the class, that is actions the objects will take. Some of the methods of the Customer class are select and enter. The Customer class is related to the Order class because one and only one customer can have zero to many orders. The Order class contains some attributes like cake type, cake size, and cake flavor. Some of its methods are enter and select. The Order class is related to the Payment class because one and only one order can have one and only one payment. The Payment class inherits the attributes and methods from the Order class because the Order contains payment information. In addition, it contains attributes like payment type and payment amount. The Order class is also composed of several other classes, like the Dessert class which inherits from Order several attributes, and is composed of the Supplies class, which has attributes describing dessert supplies. The Order class is also composed of several other classes like DessertFlavor, CakeType, CakeFlavors which are used to describe the aspects of the specific order object.

The class diagram was derived from both verb-noun analysis and prototype analysis. Verb-noun analysis was used by looking at the respective use cases and separating out the nouns and verbs to discern what the attributes and methods were for a class. In addition, to make sure attributes and methods weren't missing from the class diagram, we looked at the use case prototypes. Then we would add the necessary attributes or methods to the class diagram.


DessertType
DessertTypeName
DessertTypeDescription
Enter()
Create()
Update()
Delete()
AdminAccount
-Username
-Password
+Create()
+Update()
+Delete()
+SignIn()
+SignOut()
PaymentType
PaymentTypeName
PaymentTypeDescription
Enter()
Create()
Update()
Delete()
has a
Order
FirstName
LastName
StreetAddress
UnitNumber
City
State
ZipCode
PhoneNumber
EmailAddress
CakeType
CakeSize
CakeFlavor
DessertFlavor
DessertType
CakeIcing
CakeQuantity
SpecialLettering
Embellishments
Occasion
Picture
FulfillmentOption
PaymentType
Enter()
Select()
Upload()
Submit()
Customer
FirstName
LastName
StreetAddress
UnitNumber
City
State
ZipCode
PhoneNumber
EmailAddress
Password
Enter()
Select()
Validate()
Update()
Create()
Delete()
CakeFlavors
FlavorName
FlavorDescription
Enter()
Create()
Update()
Delete()
CakeType
CakeTypeName
CakeTypeDescription
Enter()
Create()
Update()
Delete()
DessertFlavor
DessertFlavorName
DessertFlavorDescription
Enter()
Create()
Update()
Delete()
Dessert
DessertNumber
Order
Supplies
Create()
Update()
Delete()
Fulfillment
FulfillmentType
FulfillmentDate
DistanceTravelled
Create()
Update()
Delete()
is a
FulfillmentType
FulfillmentType
FulfillmentTypeName
FulfillmentTypePrice
Create()
Update()
Delete()
DessertSupply
SupplyName
Dessert
CupsUsed
Quantity
Price
Enter()
Create()
Update()
Delete()
SupplyPurchase
SupplyName
SupplyDescription
QuantityPurchased
DatePurchased
PurchaseCost
Enter()
Create()
Update()
Delete()
SupplyInventory
SupplyName
SupplyDescription
Quantity
Price
Enter()
Create()
Update()
Delete()