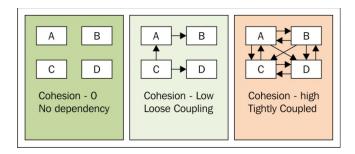
## Chapter 1: An Introduction to Apex Design Pattern



# **Creational Patterns**

- 1. Abstract Factory
- 2. Builder
- 3. Factory Method
- 4. Prototype
- 5. Singleton

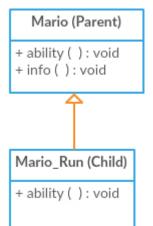
#### **Structural Patterns**

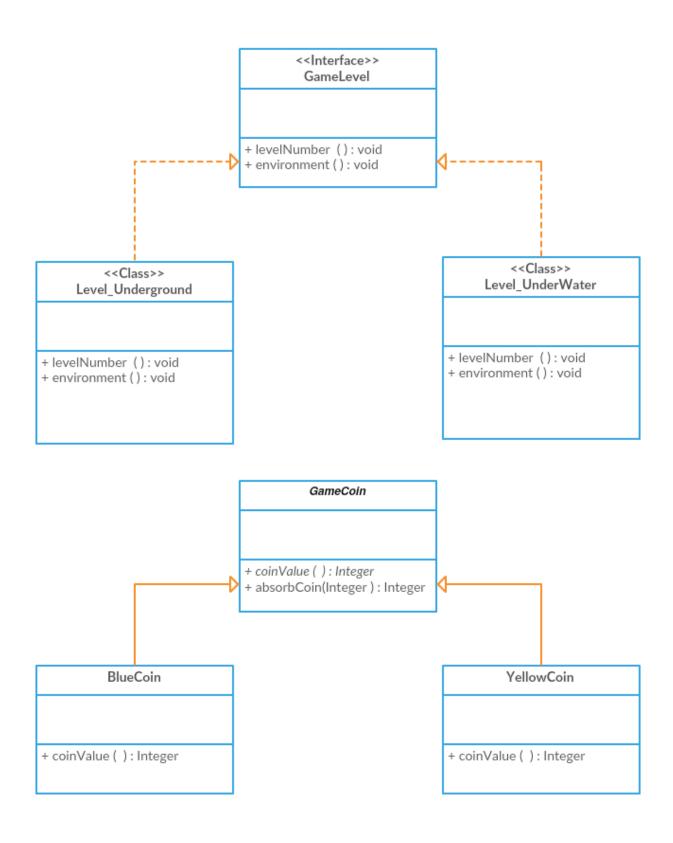
- 1. Adapter
- 2. Bridge
- 3. Composite
- 4. Decorator
- 5. Facade
- 6. Flyweight
- 7. Proxy

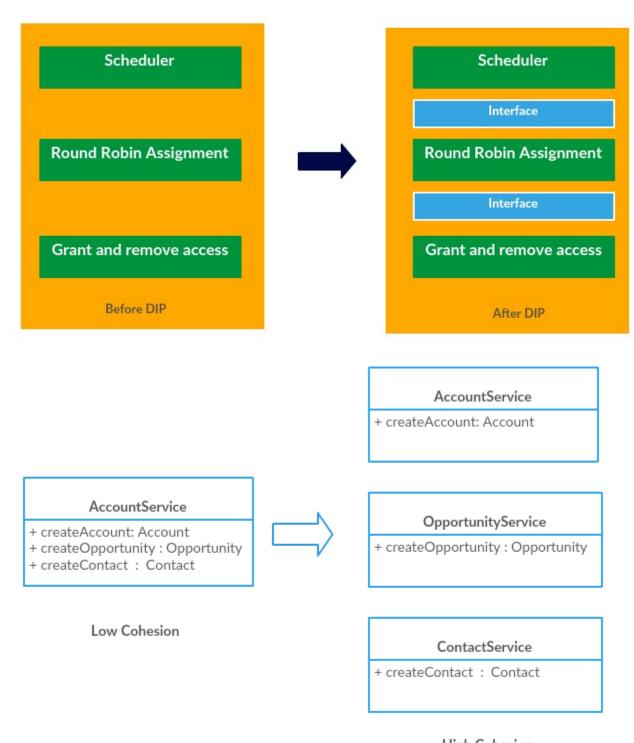
#### **Behavioral Patterns**

- 1. Chain of Responsibility
- 2. Command
- 3. Interpreter
- 4. Iterator
- 5. Mediator
- 6. Memento
- 7. Observer
- 8. State
- 9. Strategy
- 10. Template Method
- 11. Visitor

Gang of Four (GoF) Design Patterns

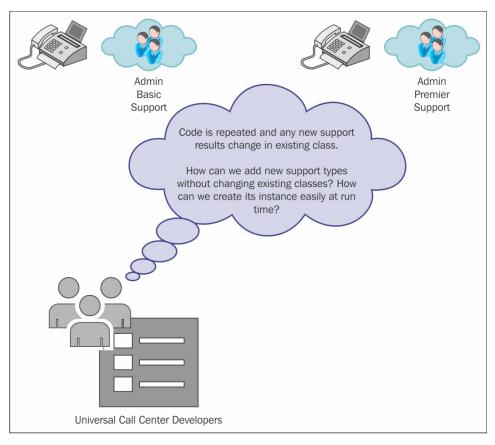


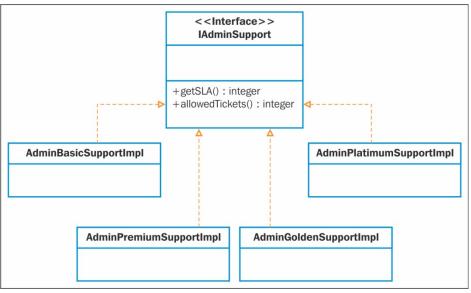


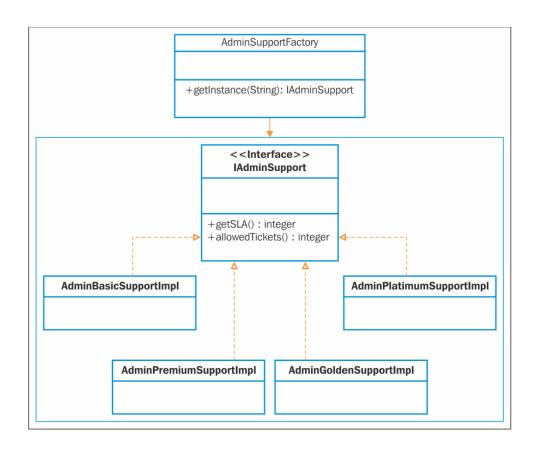


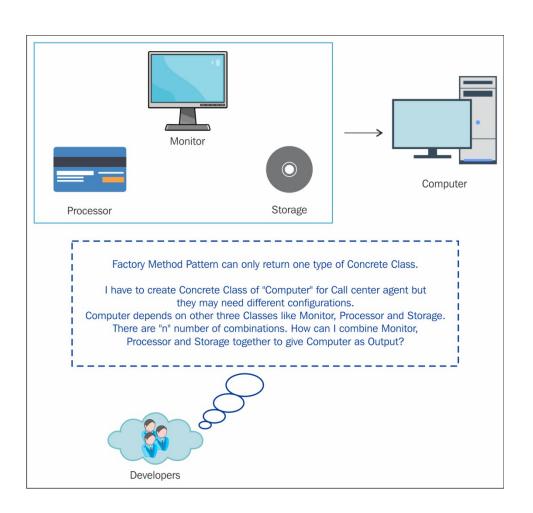
High Cohesion

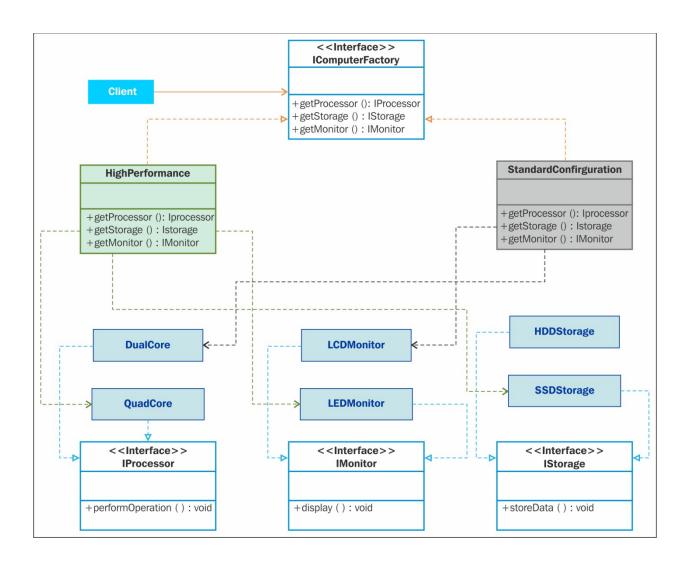
**Chapter 2: Creational Patterns** 

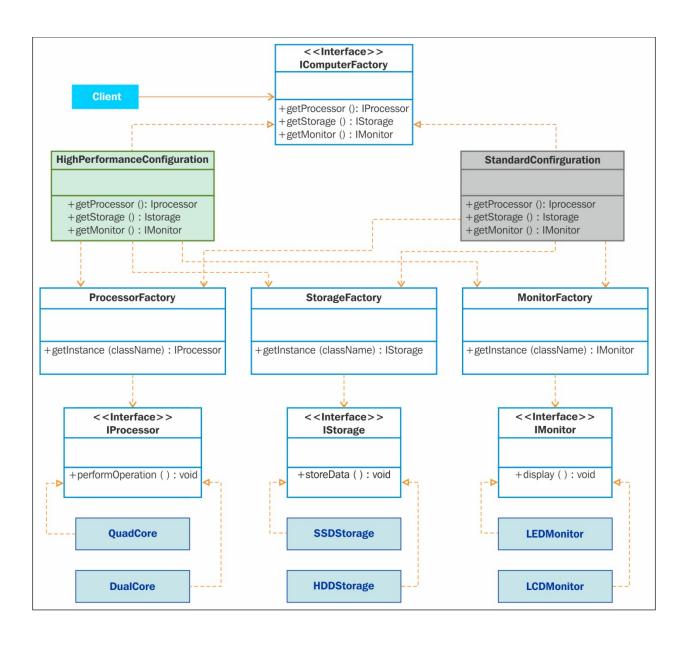


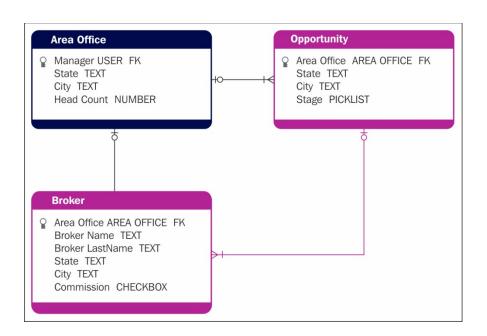


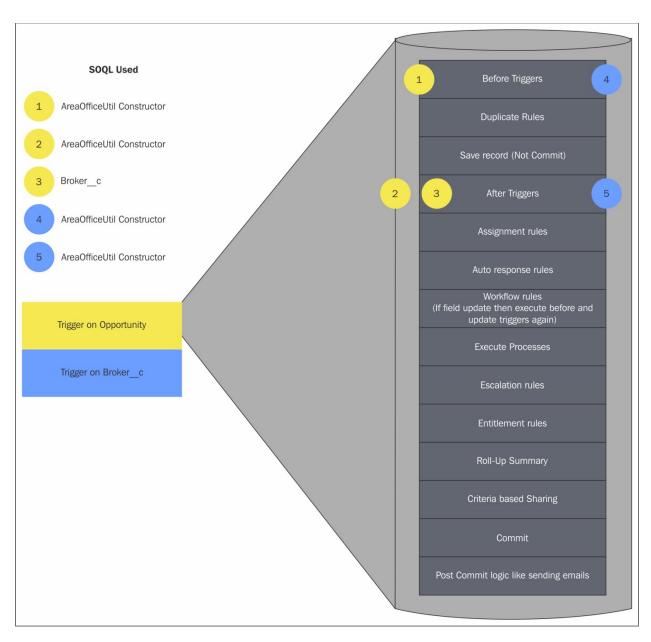


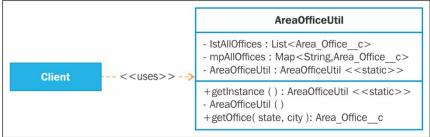




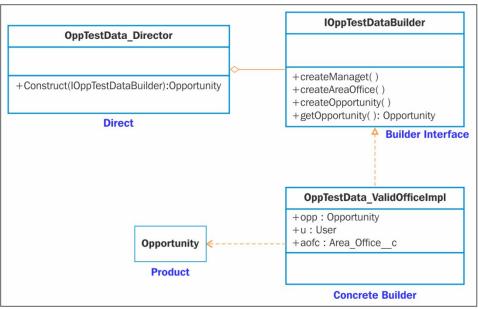


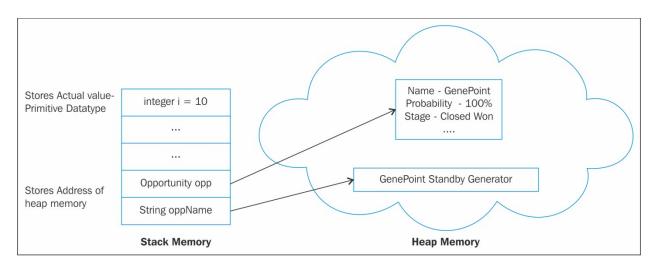


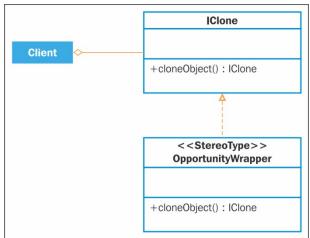




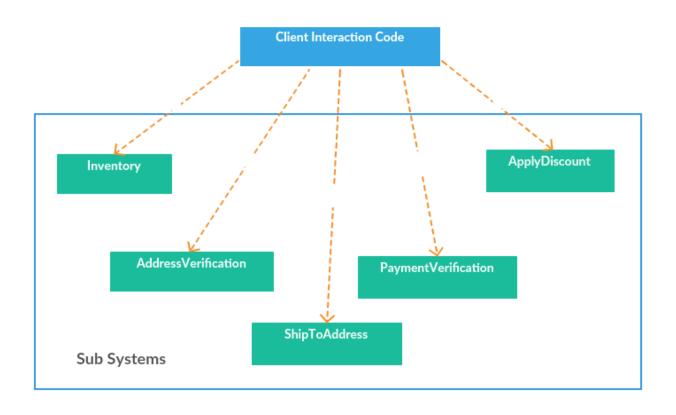


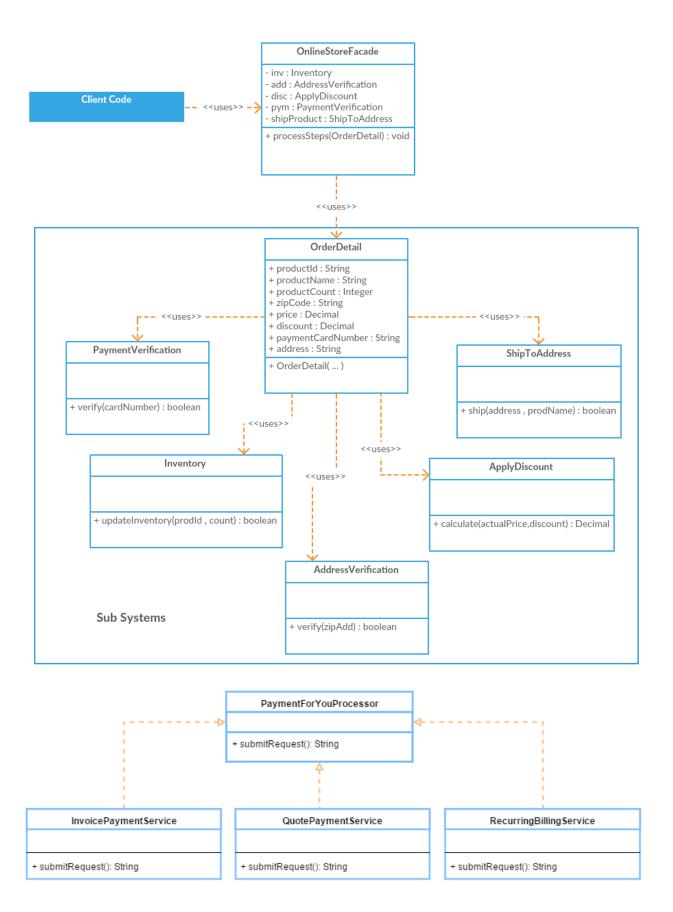


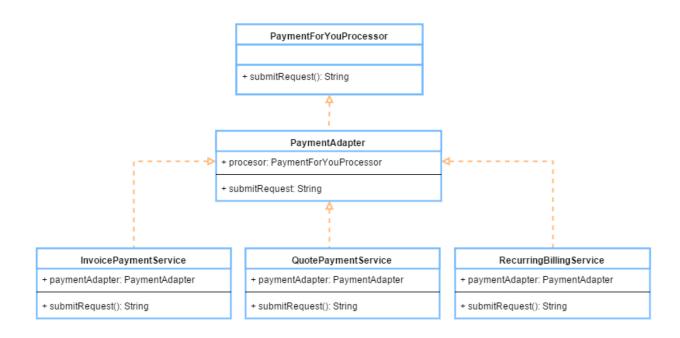


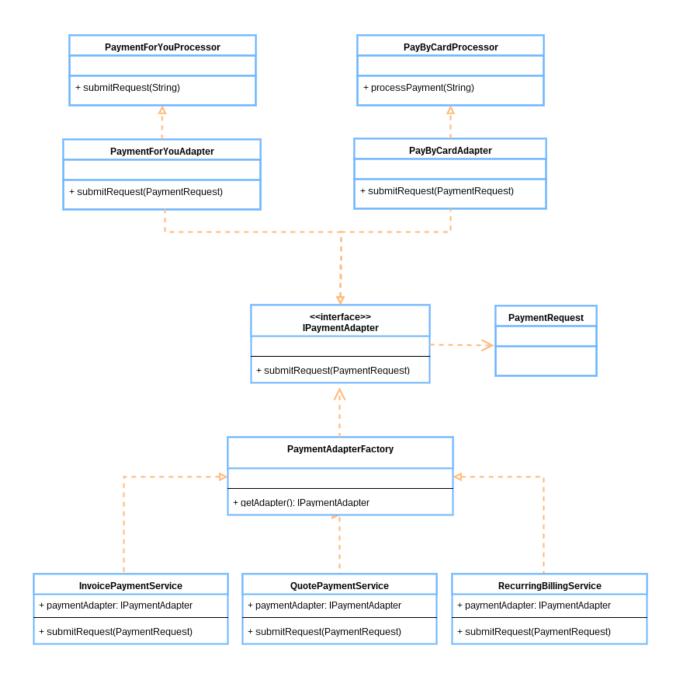


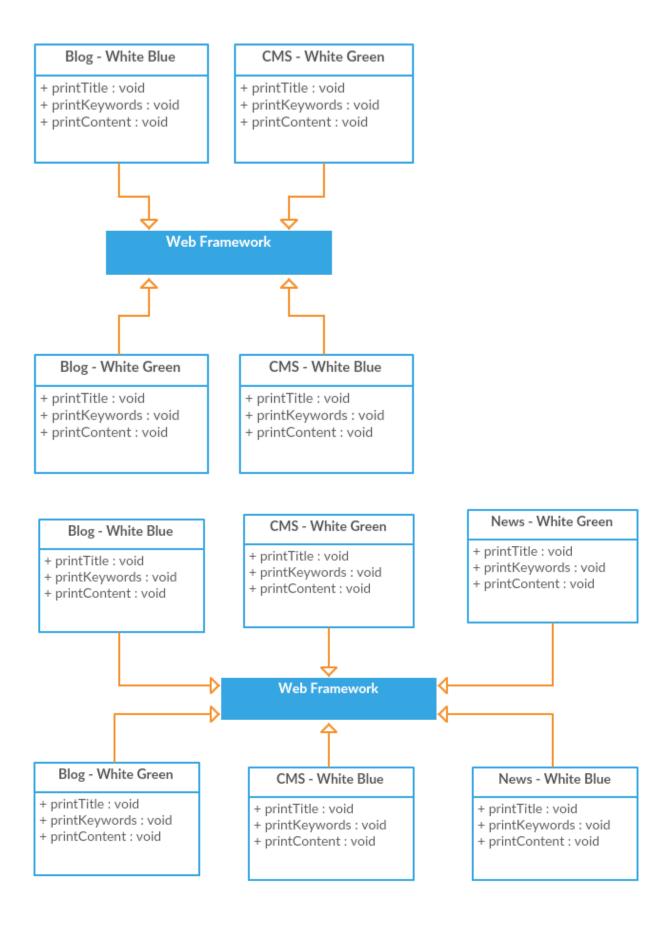
**Chapter 3: Structural Patterns** 

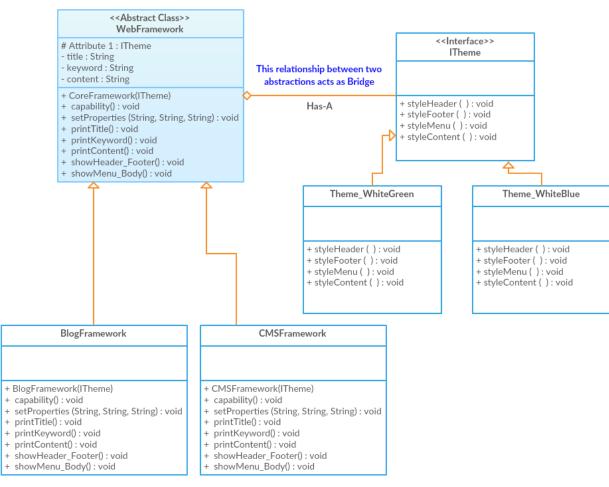


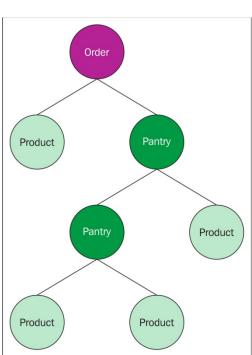


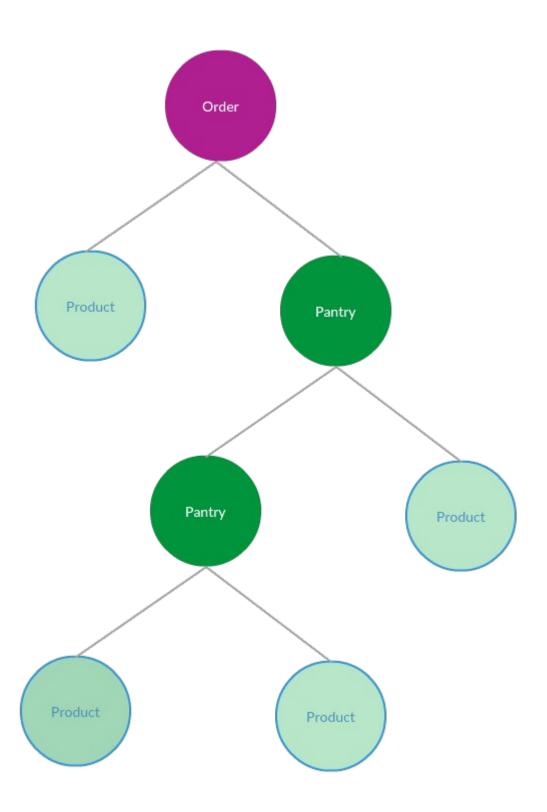


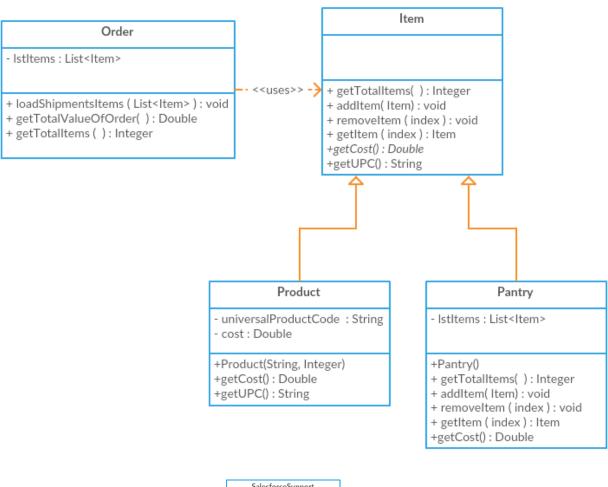


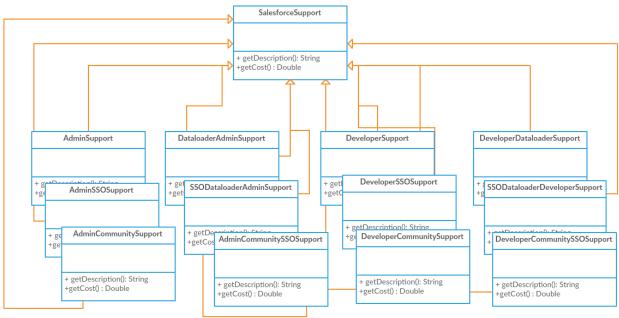


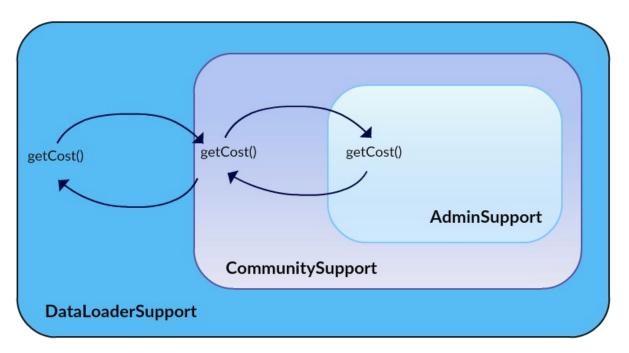


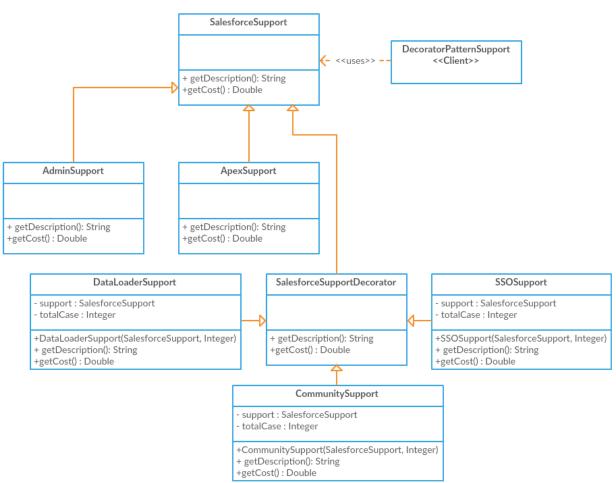










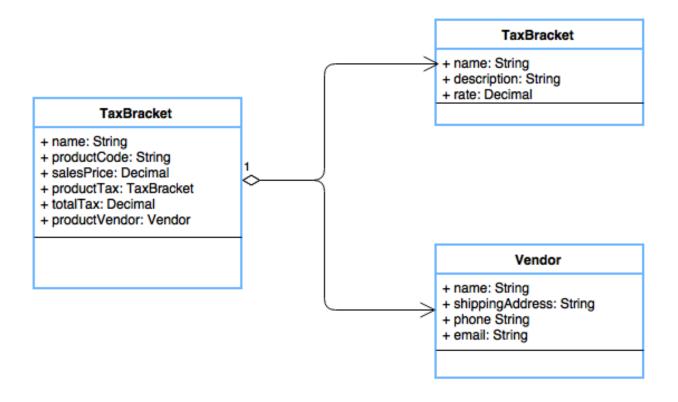


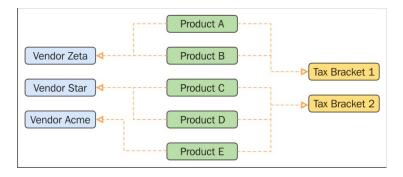


Name	Product Code	Tax Rate	Tax Type	Total Tax	Vendor Name	Shipping Address	Vendor Phone	Vendor Email
GenWatt Diesel 200kW	GC1040	1.5	Entertainment Tax 🥝	\$ 300.00	XYZ Corp	A-34 Oakwood ave., Santa Clara	345-435-2345	sales@abccopr.com
GenWatt Diesel 10kW	GC1020	0.5	Luxury Tax 🕜	\$ 150.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
Installation: Industrial - High	IN7080	2	Service Tax 🕜	\$ 200.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
SLA: Silver	SL9040	1.5	Entertainment Tax 🥝	\$ 300.00	XYZ Corp	A-34 Oakwood ave., Santa Clara	345-435-2345	sales@abccopr.com
GenWatt Propane 500kW	GC3040	0.5	Luxury Tax 🕜	\$ 150.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
SLA: Platinum	SL9080	2	Service Tax 🕜	\$ 200.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
GenWatt Propane 100kW	GC3020	1.5	Entertainment Tax 🕜	\$ 300.00	XYZ Corp	A-34 Oakwood ave., Santa Clara	345-435-2345	sales@abccopr.com
GenWatt Propane 1500kW	GC3060	0.5	Luxury Tax 🕜	\$ 150.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
GenWatt Diesel 1000kW	GC1060	2	Service Tax 🕜	\$ 200.00	ABC Corp	123 Park street, Mount View	345-435-2345	sales@abccopr.com
SLA: Bronze	SL9020	1.5	Entertainment Tax 🕜	\$ 300.00	XYZ Corp	A-34 Oakwood ave., Santa Clara	345-435-2345	sales@abccopr.com

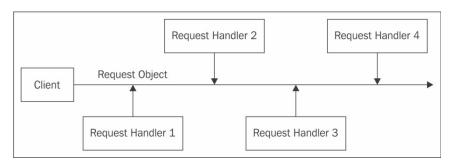
### ProductWrapper

String Name
String ProductCode
Decimal SalesPrice
Decimal TaxRate
String TaxType
String TaxDetails
Decimal TotalTax
String VendorName
String VendorShippingAddress
String VendorContactPhone
String VendorContactEmail

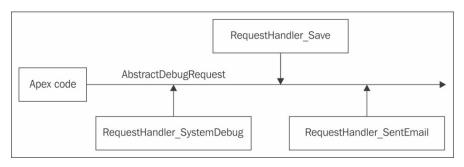


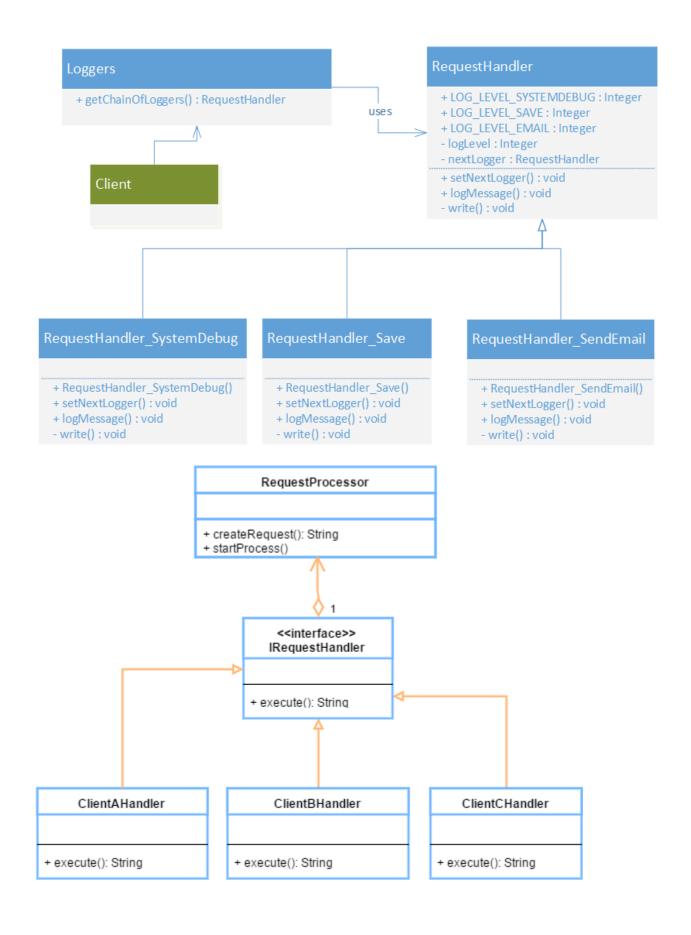


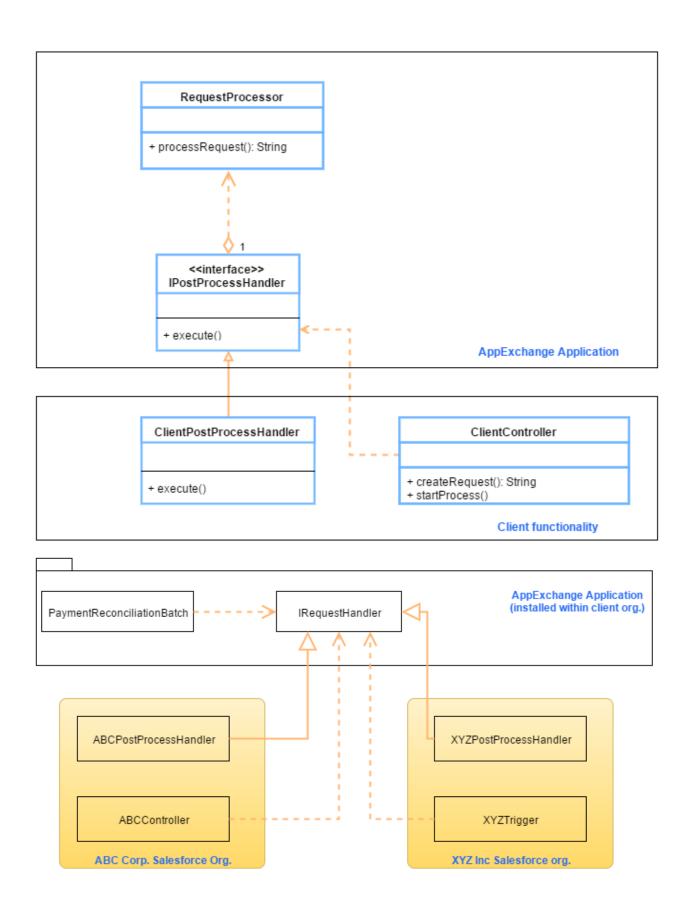
## **Chapter 4: Behavioral Patterns**

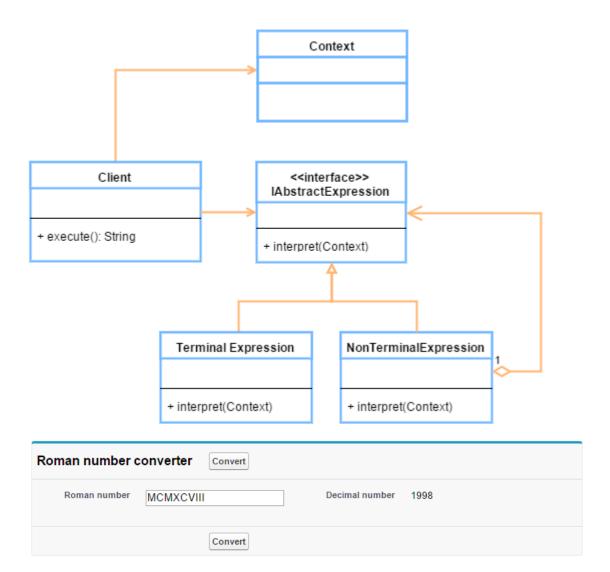


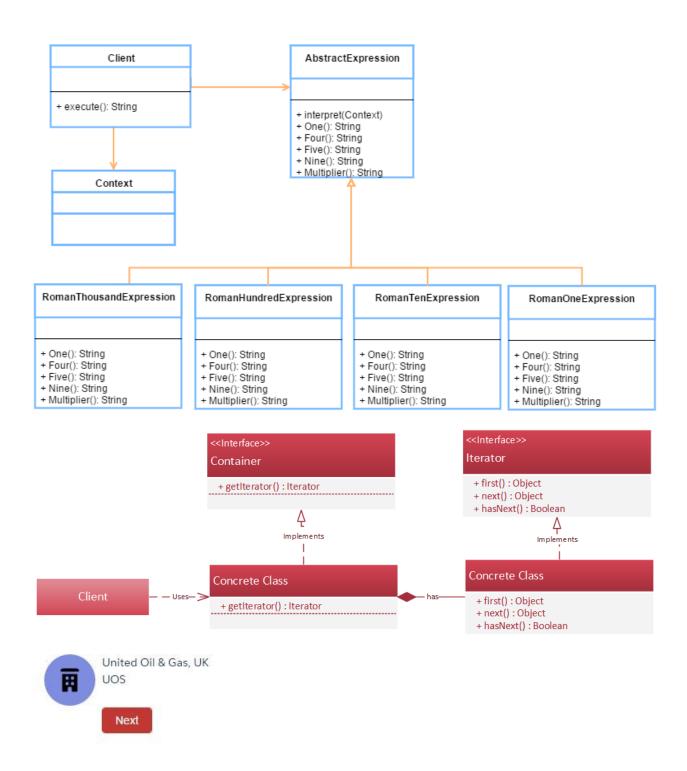


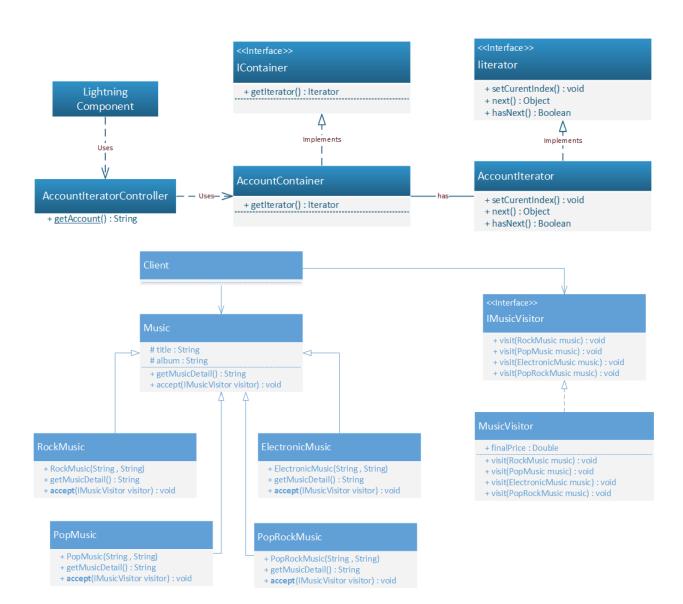




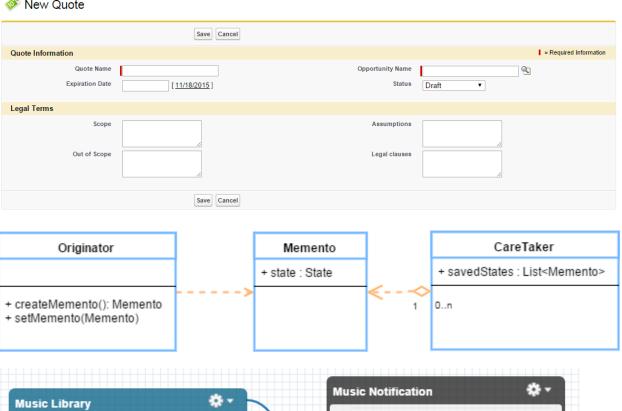


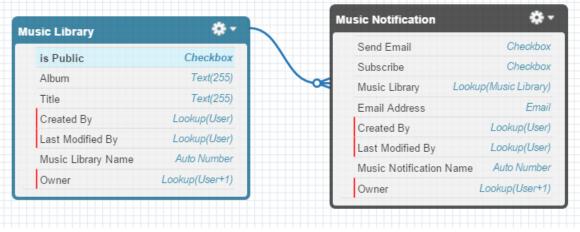


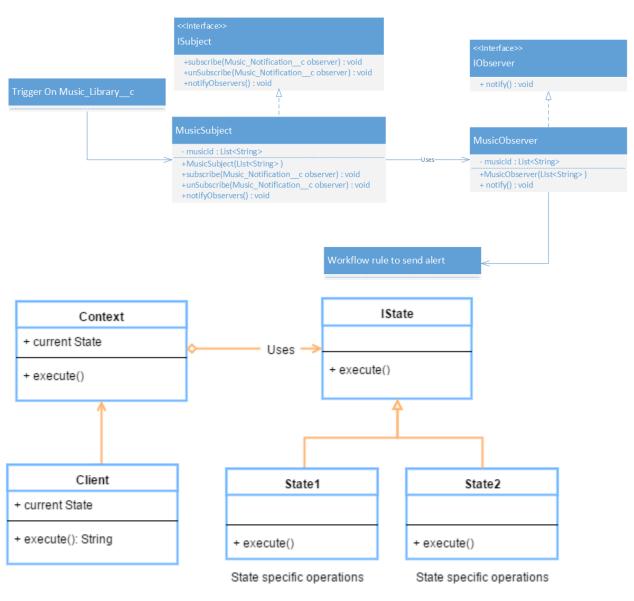




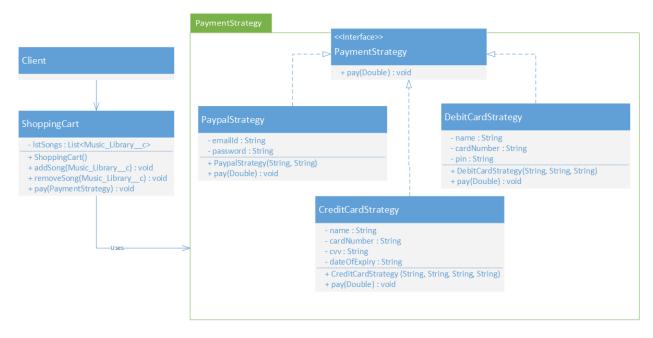




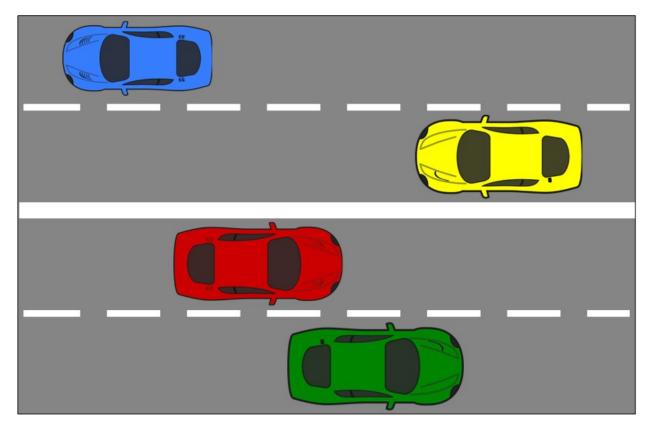


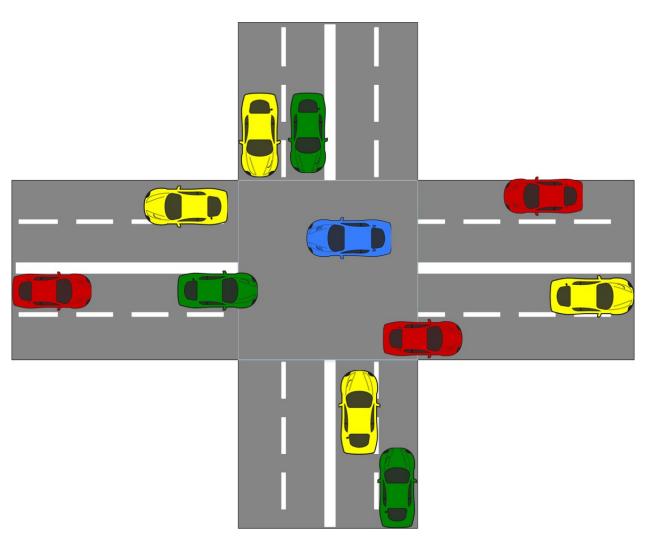


sic Library	
price	Currency(16, 2)
Album	Text(255)
Created By	Lookup(User)
is Public	Checkbox
Last Modified By	Lookup(User)
Music Library Name	Auto Number
Owner	Lookup(User+1)
Title	Text(255)

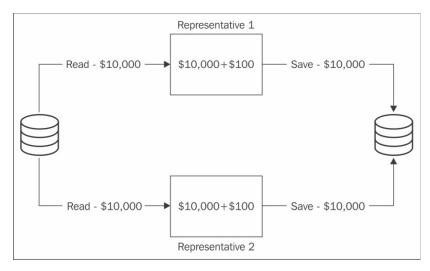


**Chapter 5: Handling Concurrency in Apex** 

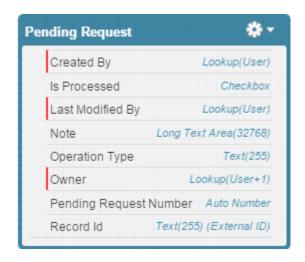


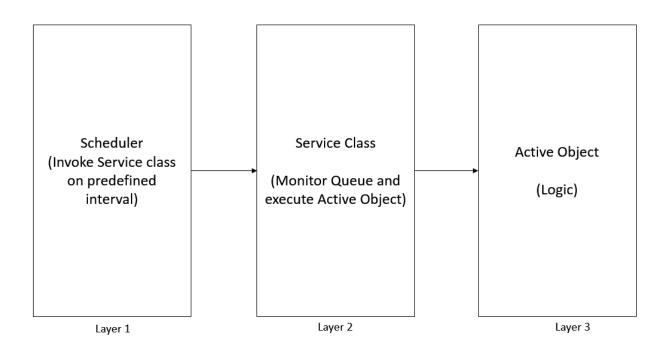


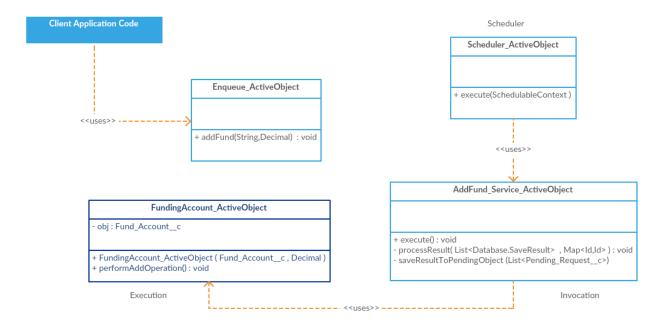
Fund Account	<b></b>		
Available Fund	Currency(18, 0)		
Created By	Lookup(User)		
Fund Account Name	Text(80)		
Last Modified By	Lookup(User)		
Owner	Lookup(User+1)		



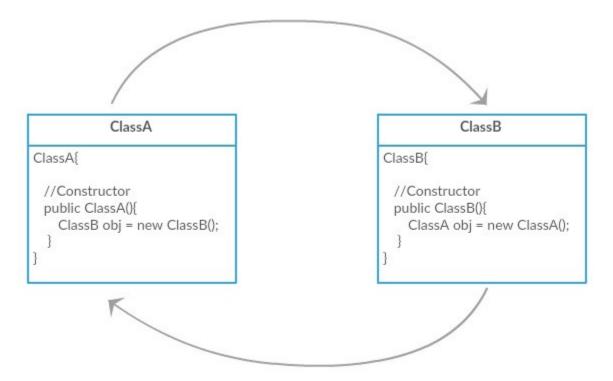








**Chapter 6: Anti-patterns and Best Practices** 



You cannot set a hierarchy field Account Circular dependency to point to itself or a child record. Either edit one of the child records to not refer to this record, or do not set the field on this record.

Save Cancel

Account Detail

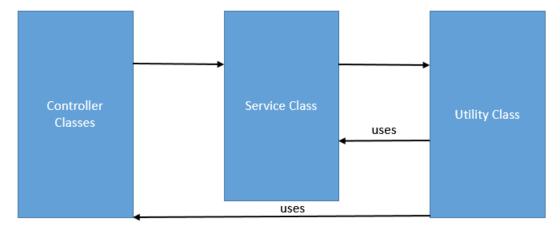


Fig a: Circular Dependency between layers

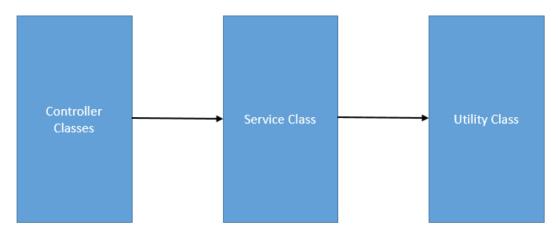


Fig b: No Circular Dependency between layers

