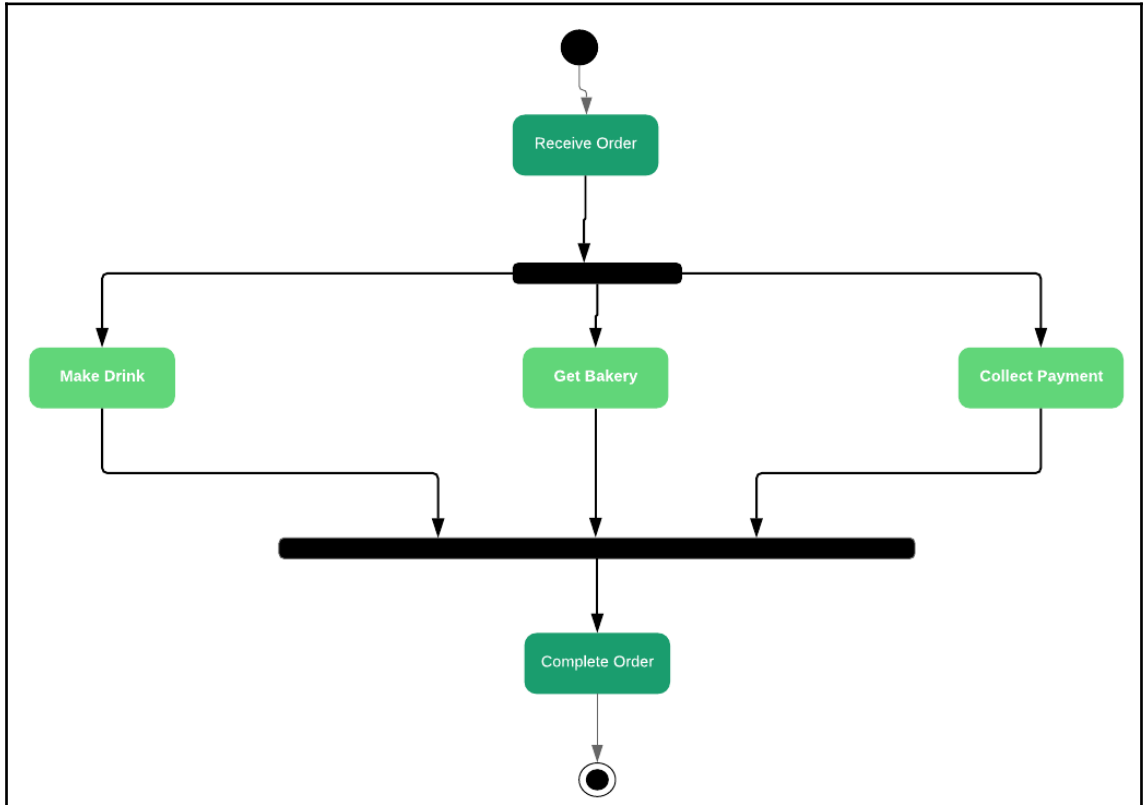
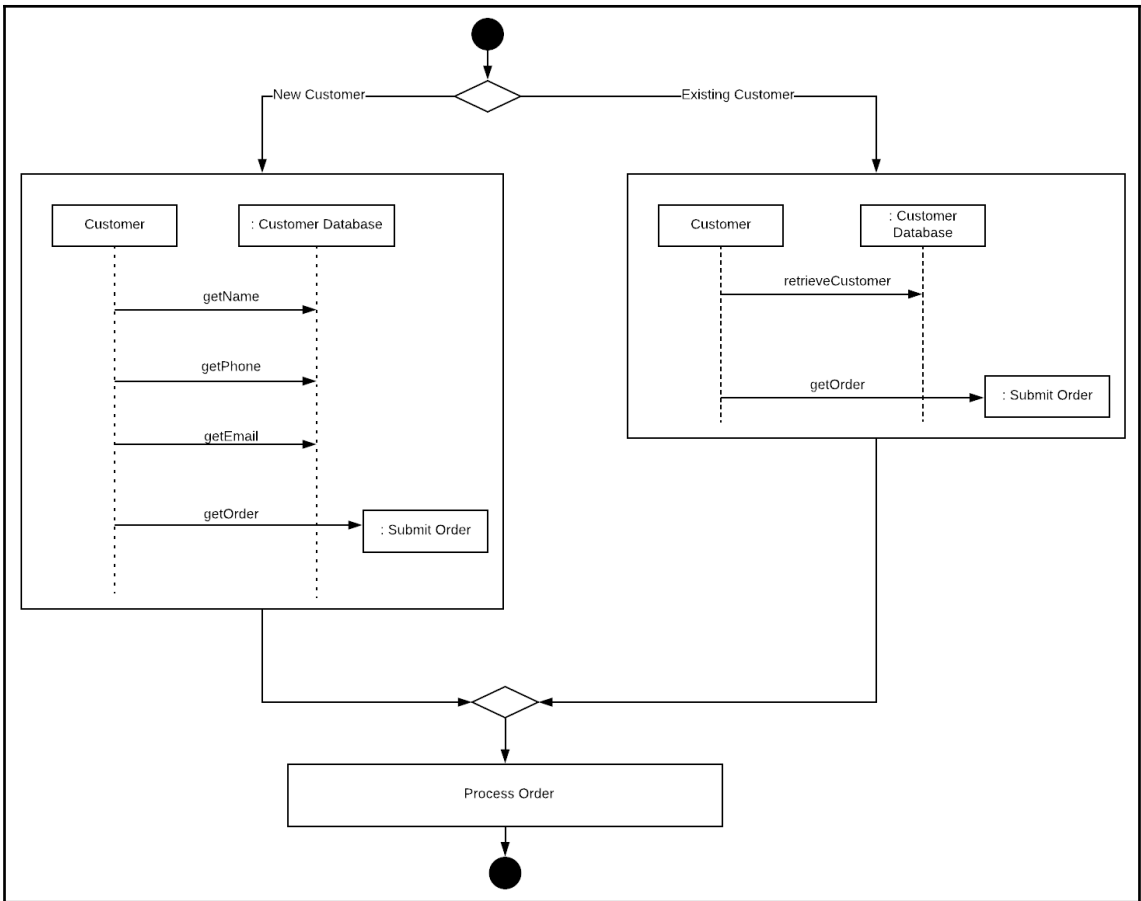
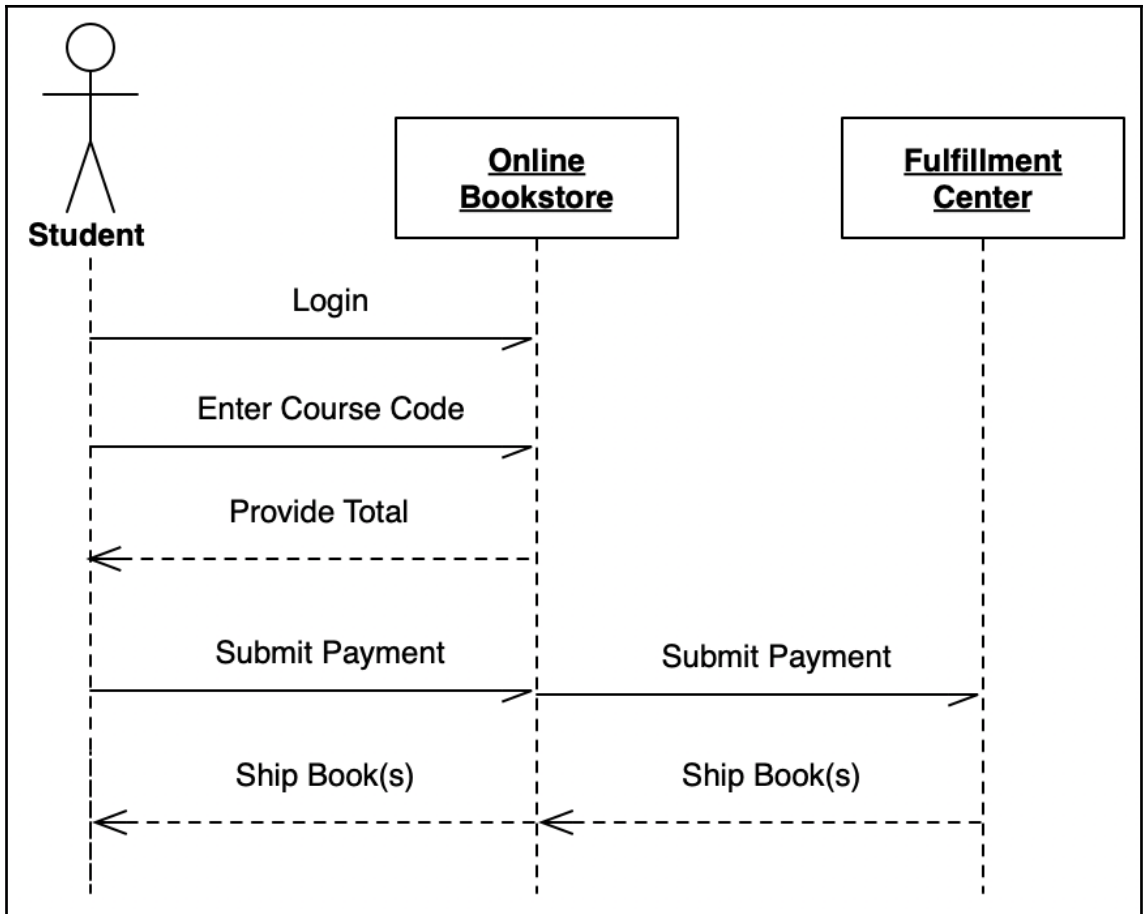
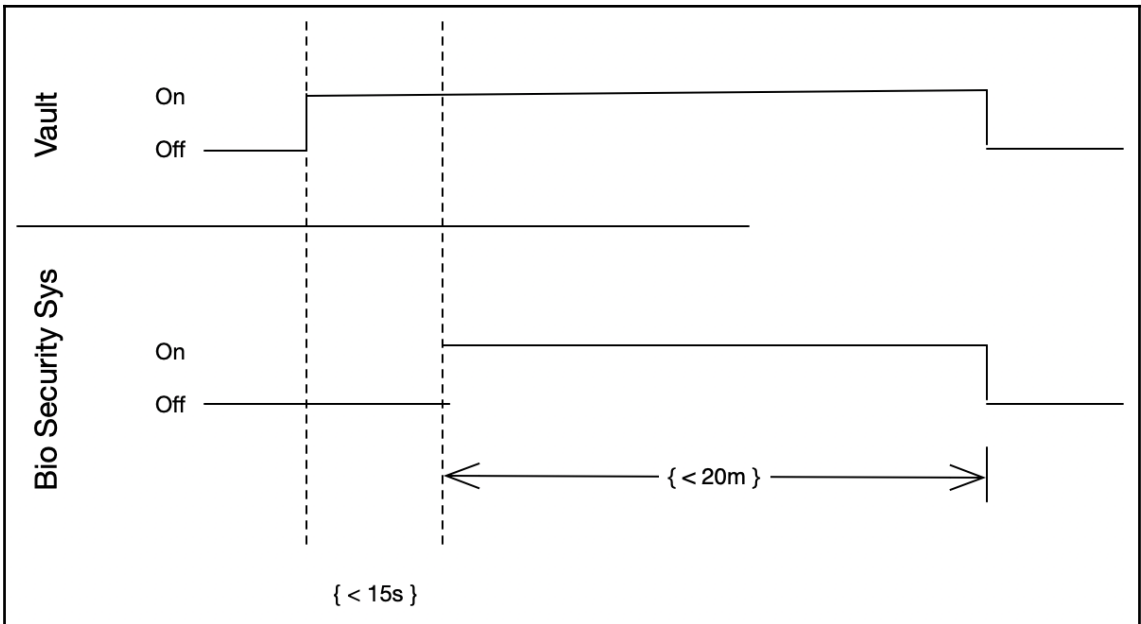
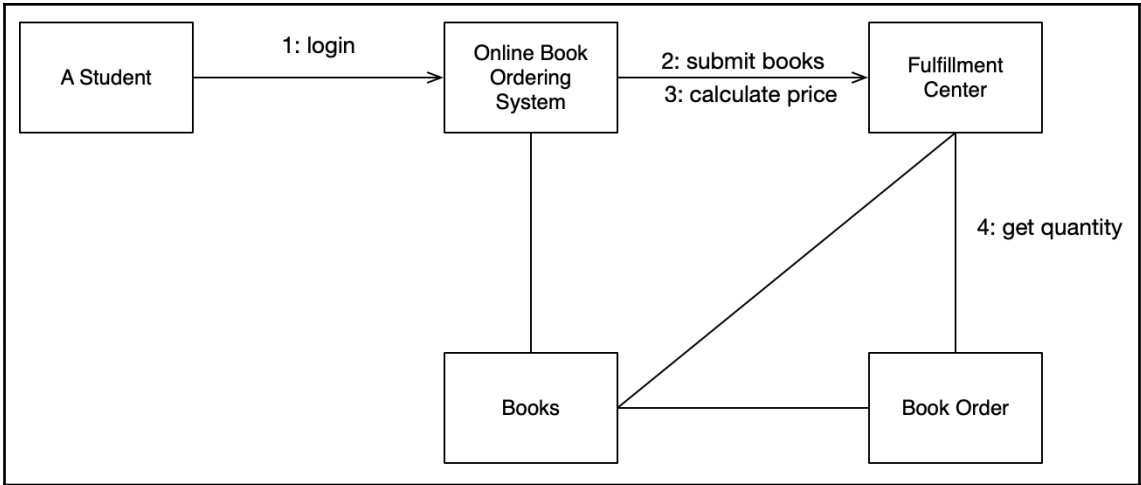


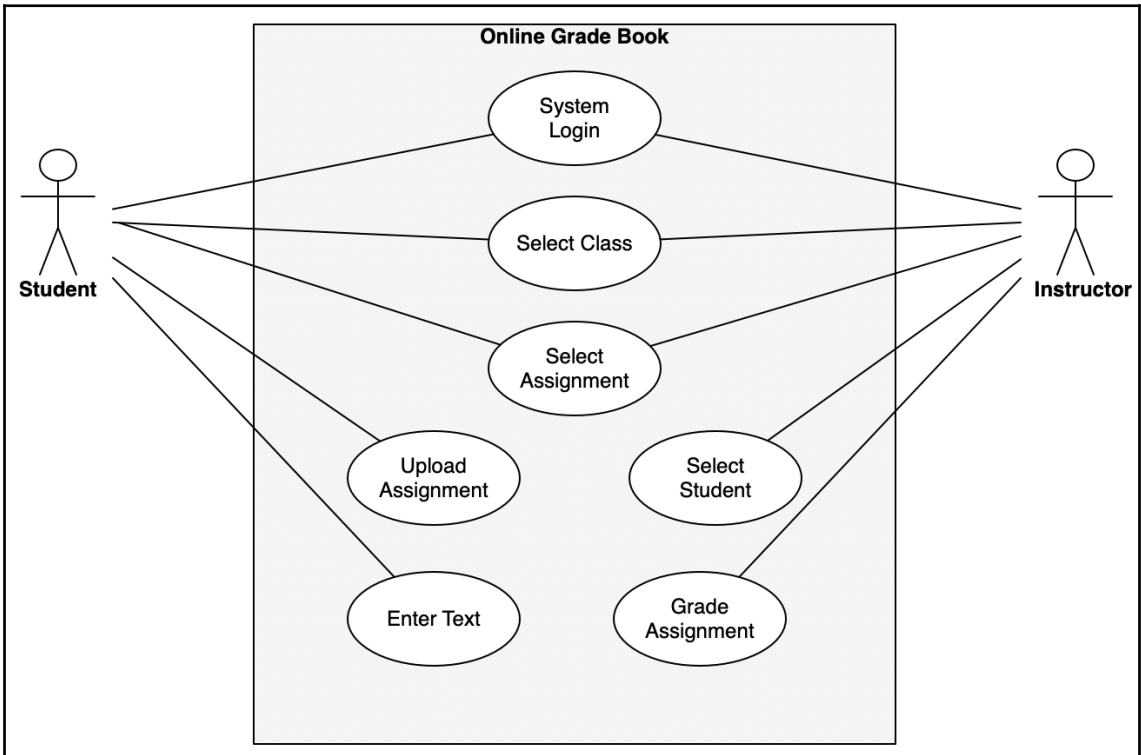
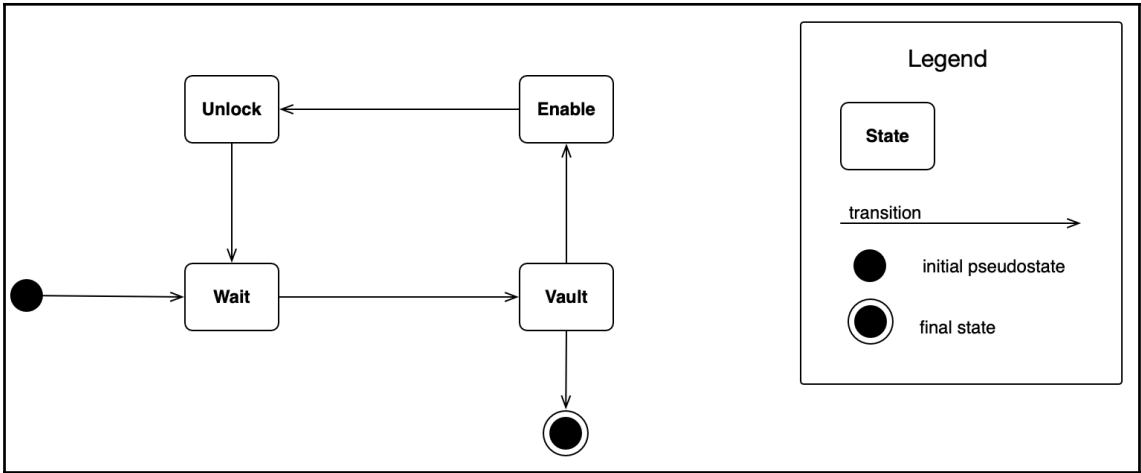
Chapter 1: Unified Modeling Language Primer

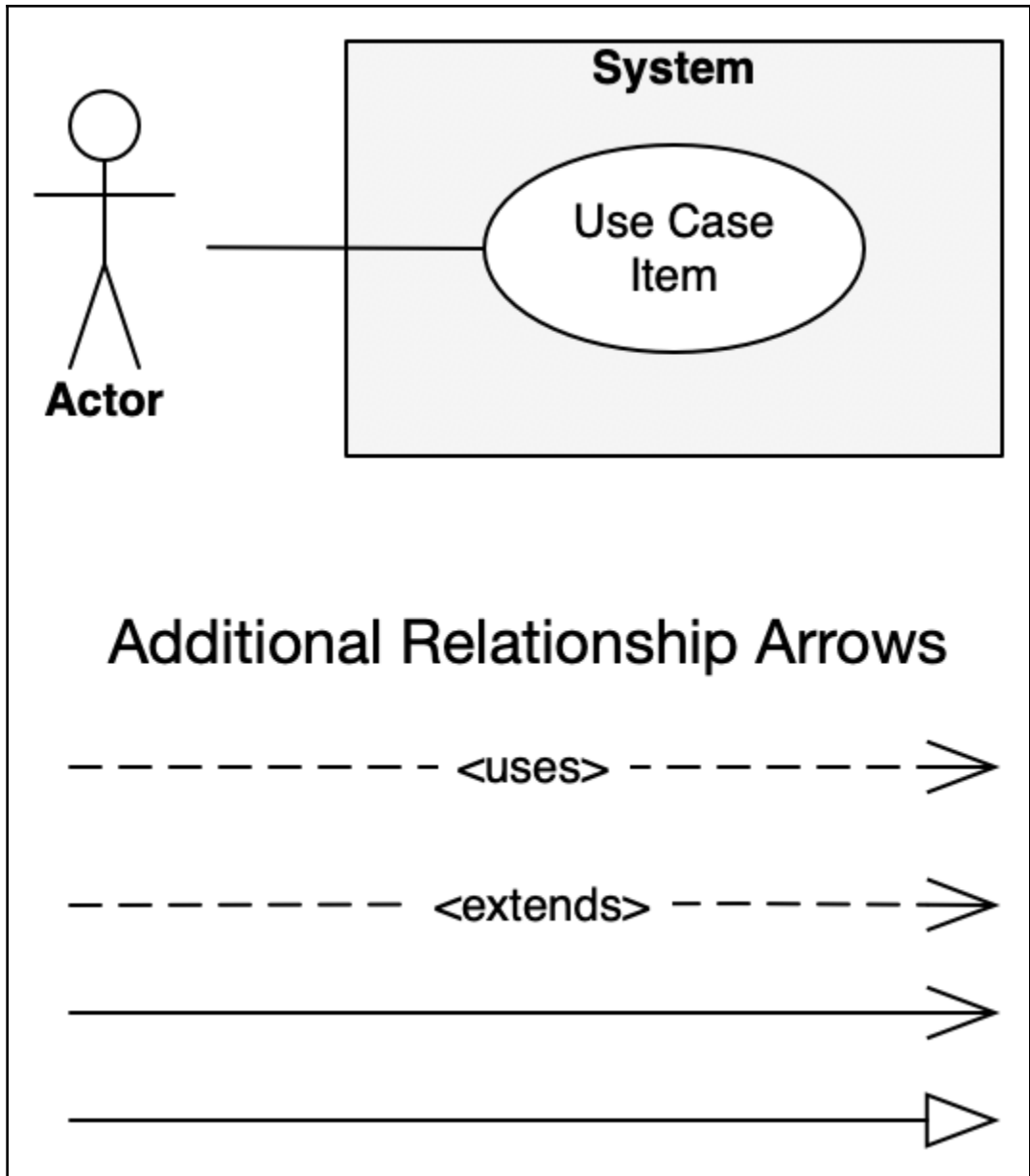






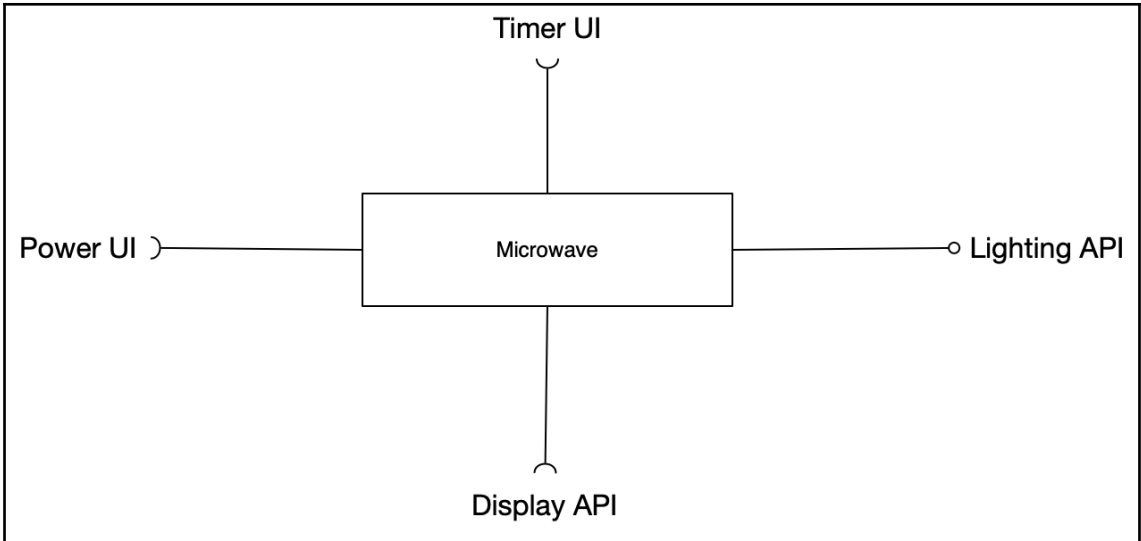
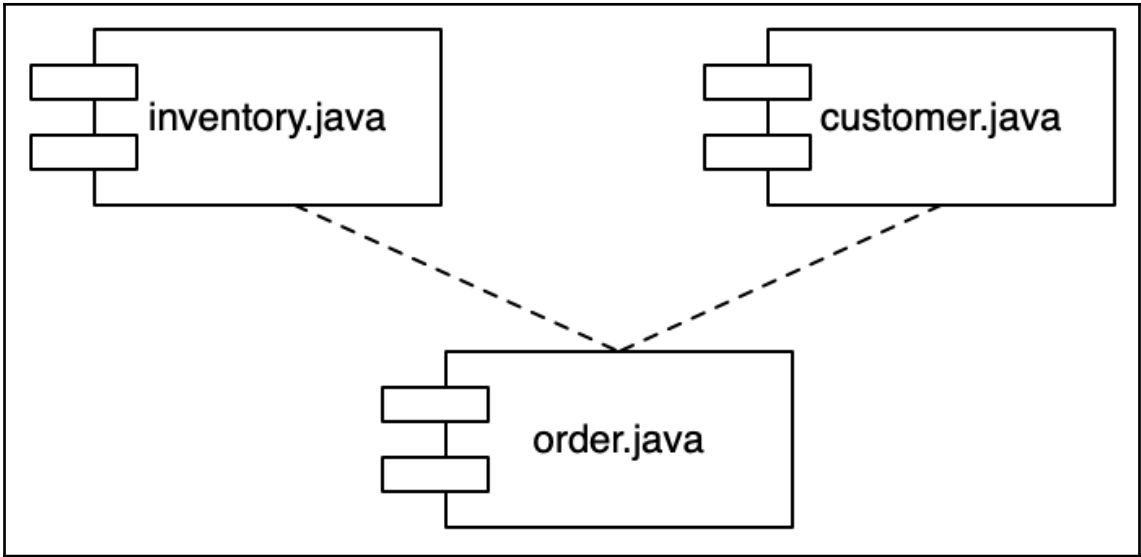


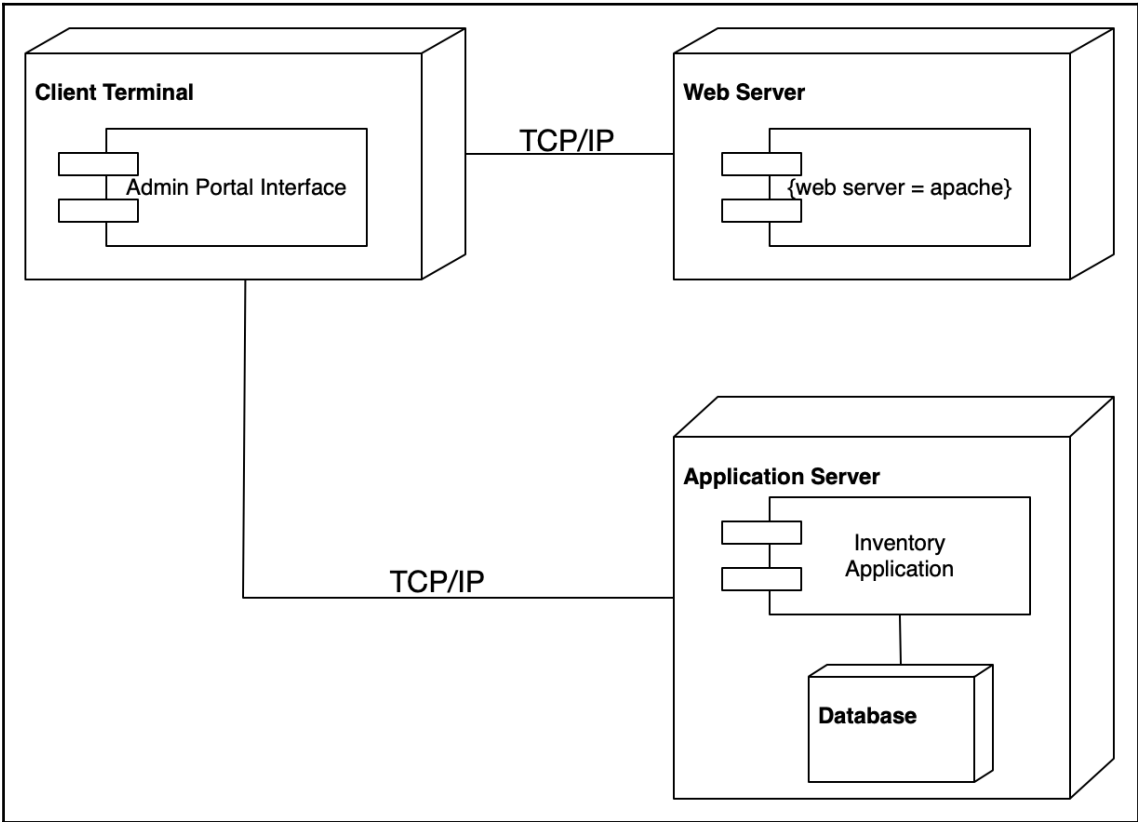
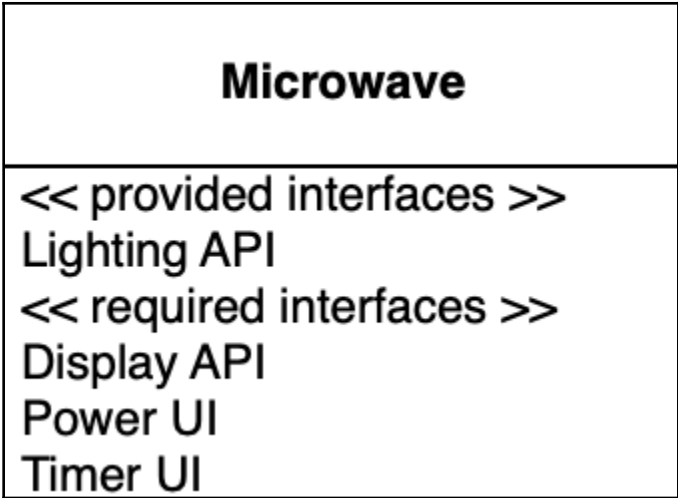


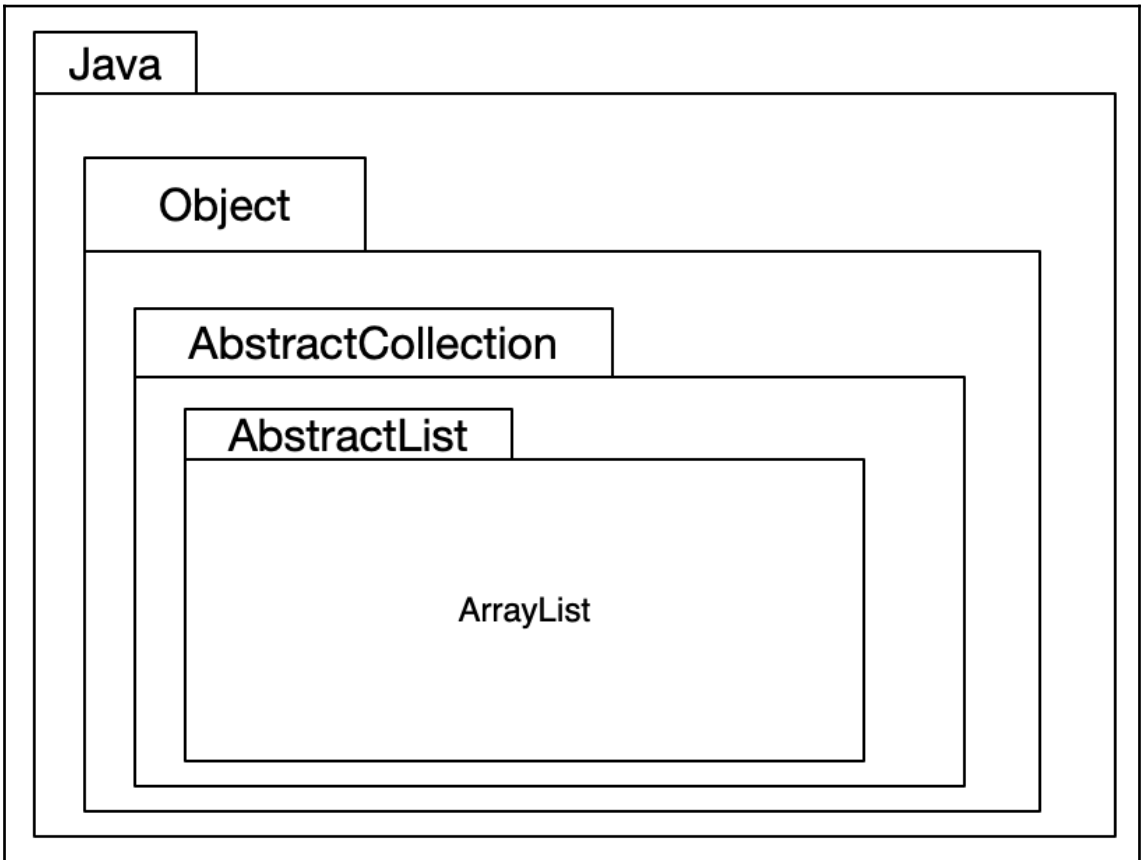
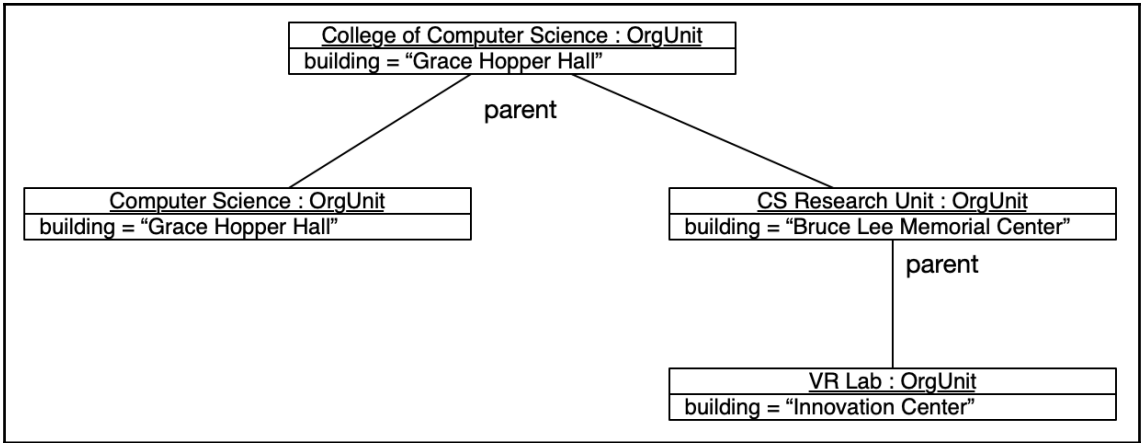


Class Name
Attribute
Attribute
Operation
Operation

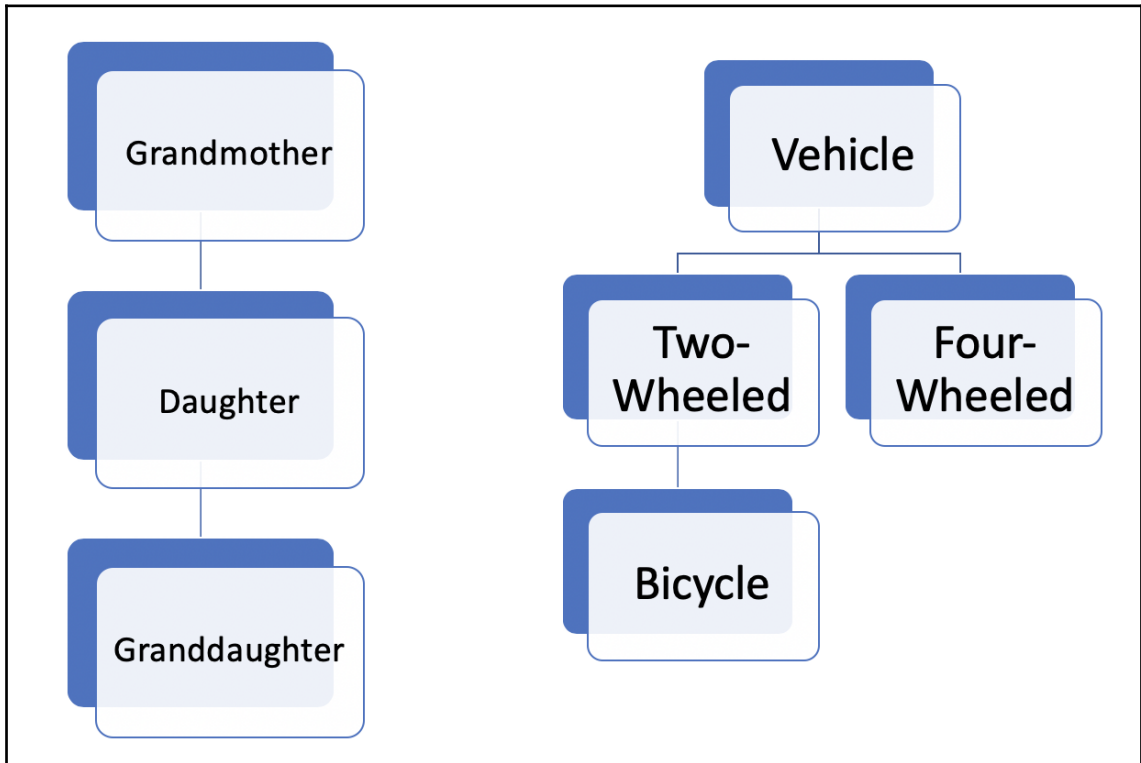
Kennel
animal
breed
name
intake
discharge

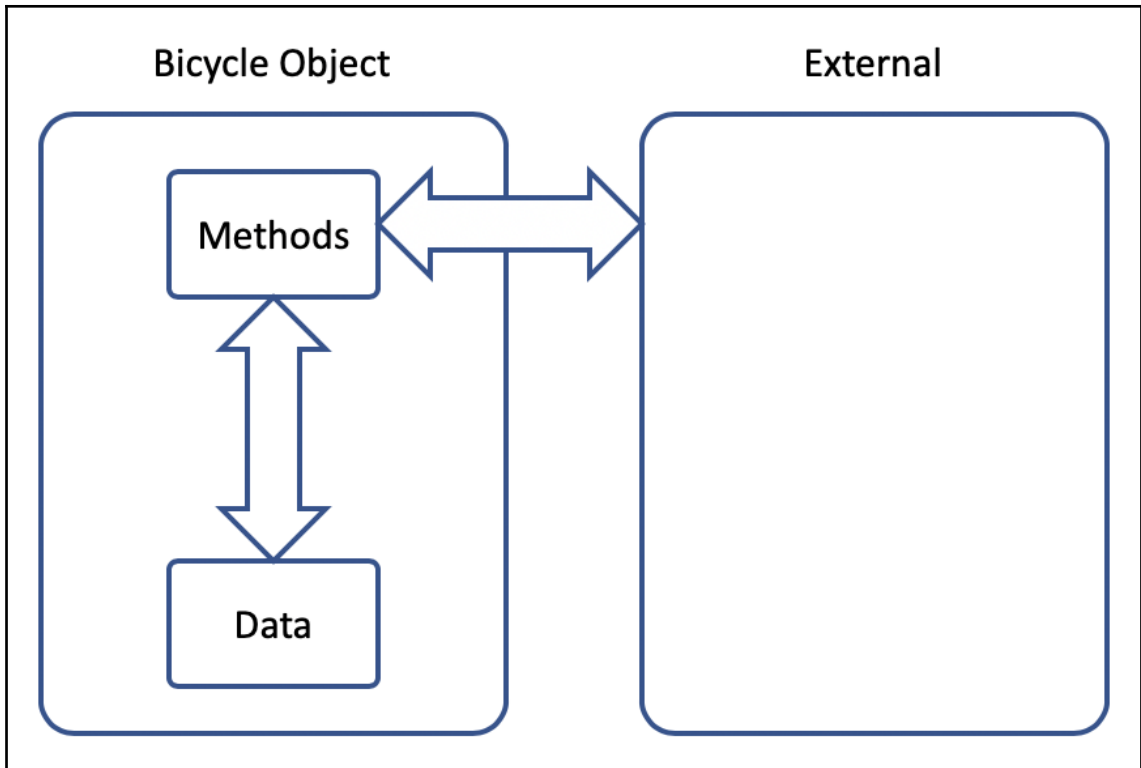






Chapter 2: Object-Oriented Design Patterns





```
myBike "Instance of" Checks
Instance of Bicycle: True
Instance of TwoWheeled: True
Instance of Vehicle: True
Instance of Object: True
```

Bicycle Details:

Gears : 24

Cost : 319.99

Weight : 13.5 lbs

Color : Purple

Bicycle Details:

Gears : 0

Cost : 0.0

Weight : 0.0 lbs

Color : Navy Blue

Bicycle Details:

Gears : 0

Cost : 0.0

Weight : 0.0 lbs

Color :

Bicycle Details:

Gears : 0

Cost : 0.0

Weight : 0.0 lbs

Color : Brown

Bicycle Details:

Gears : 22

Cost : 0.0

Weight : 0.0 lbs

Color :

Bicycle Details:

Gears : 22

Cost : 319.99

Weight : 13.5 lbs

Color : White

Bicycle Nbr 1 Details:

Gears : 0
Cost : 0.0
Weight : 0.0 lbs
Color :

Bicycle Nbr 2 Details:

Gears : 0
Cost : 0.0
Weight : 0.0 lbs
Color : Brown

Bicycle Nbr 3 Details:

Gears : 22
Cost : 0.0
Weight : 0.0 lbs
Color :

Bicycle Nbr 4 Details:

Gears : 22
Cost : 319.99
Weight : 13.5 lbs
Color : White

Bicycle Number 5 Details:

Gears : 32

Cost : 418.5

Weight : 17.2 lbs

Color : Peach

"IS A" CHECKS

myBike6 Instance of Bicycle: True

myBike6 Instance of TwoWheeled: True

myBike6 Instance of Vehicle: True

myBike6 Instance of Object: True

myTwoWheeled Instance of Bicycle: False

myTwoWheeled Instance of TwoWheeled: True

myTwoWheeled Instance of Vehicle: True

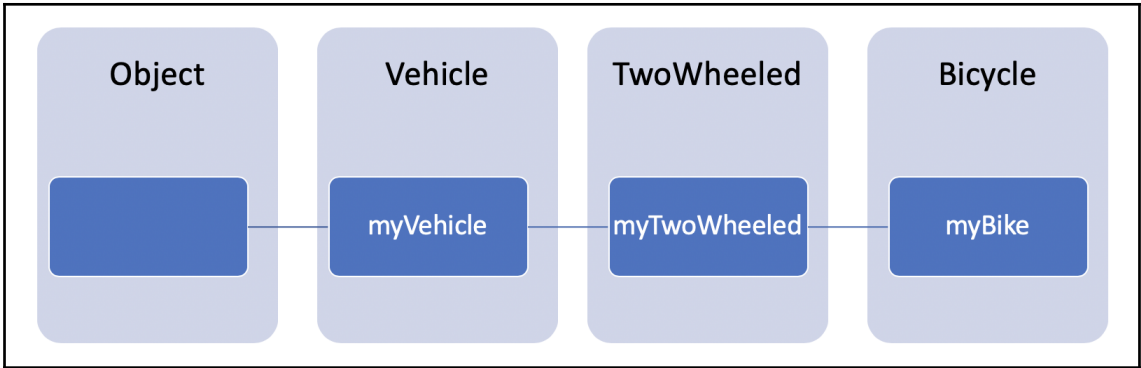
myTwoWheeled Instance of Object: True

myVehicle Instance of Bicycle: False

myVehicle Instance of TwoWheeled: False

myVehicle Instance of Vehicle: True

myVehicle Instance of Object: True



myBike's color is Purple

Bicycle Nbr 1 Details:

Gears : 0
Cost : 0.0
Weight : 0.0 lbs
Color :

Bicycle Nbr 2 Details:

Gears : 0
Cost : 0.0
Weight : 0.0 lbs
Color : Brown

Bicycle Nbr 3 Details:

Gears : 22
Cost : 0.0
Weight : 0.0 lbs
Color :

Bicycle Nbr 4 Details:

Gears : 22
Cost : 319.99
Weight : 13.5 lbs
Color : White

Bicycle Number 5 Details:

Gears : 32
Cost : 418.5
Weight : 17.2 lbs
Color : Peach

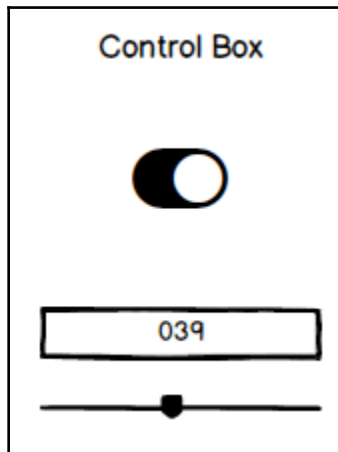
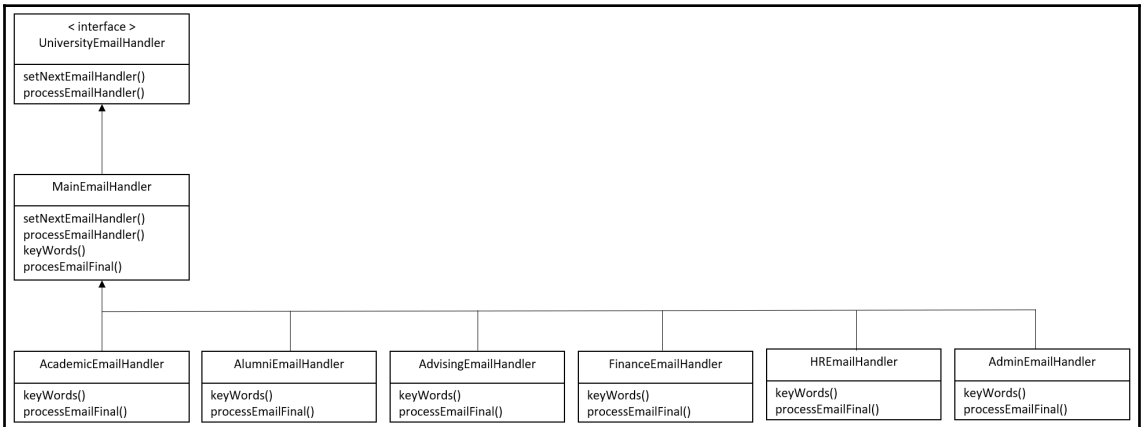
"IS A" CHECKS

myBike6 Instance of Bicycle: True
myBike6 Instance of TwoWheeled: True
myBike6 Instance of Vehicle: True
myBike6 Instance of Object: True

myTwoWheeled Instance of Bicycle: False
myTwoWheeled Instance of TwoWheeled: True
myTwoWheeled Instance of Vehicle: True
myTwoWheeled Instance of Object: True

myVehicle Instance of Bicycle: False
myVehicle Instance of TwoWheeled: False
myVehicle Instance of Vehicle: True
myVehicle Instance of Object: True

Chapter 3: Behavioral Design Patterns



ControlBox

SLIDER_MIN

SLIDER_MAX

poweredOn

sliderValue

getSliderValue()

hasPower()

powerOn()

powerOff()

sliderIncrease()

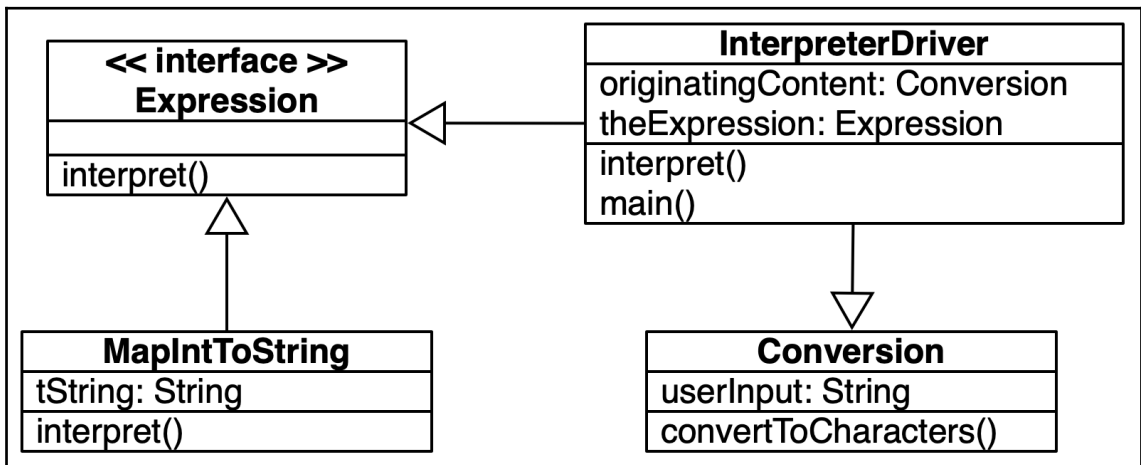
sliderDecrease()

CODE INTERPRETER

Enter your code: *319*

Your code: 319

Decrypted Message: YES



CODE INTERPRETER

Enter your code: *319*

Your code: 319

Decrypted Message: YES

**<< interface >>
Iterator**

forEachRemaining()
hasNext()
next()
remove()

Original Colonies of Kobol:

Aerlion

Aquaria

Canceron

Caprica

Gemenon

Leonis

Libran

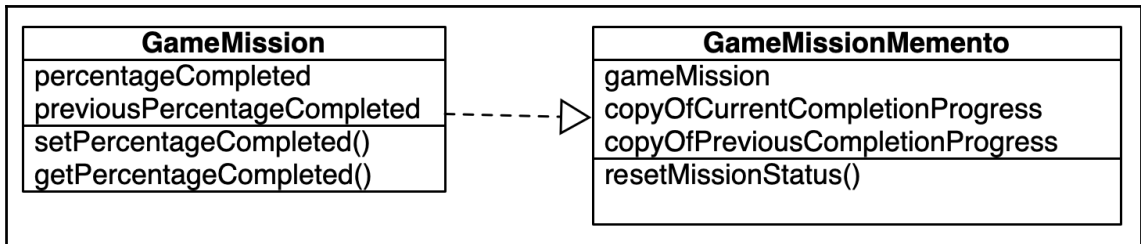
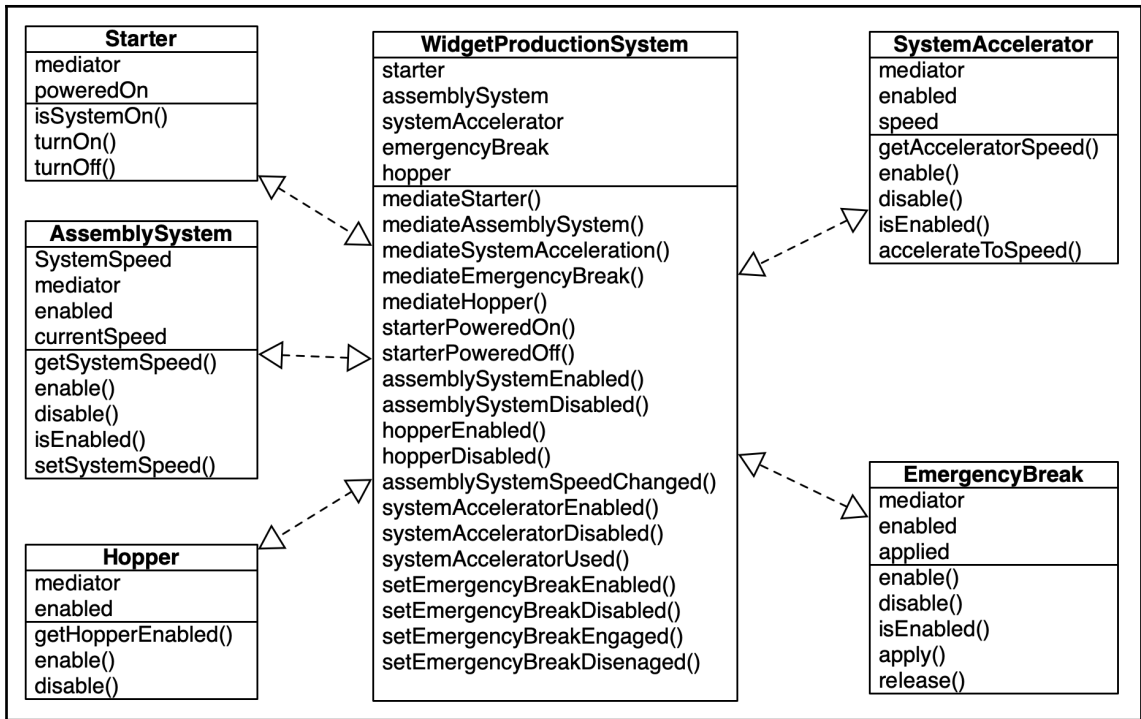
Picon

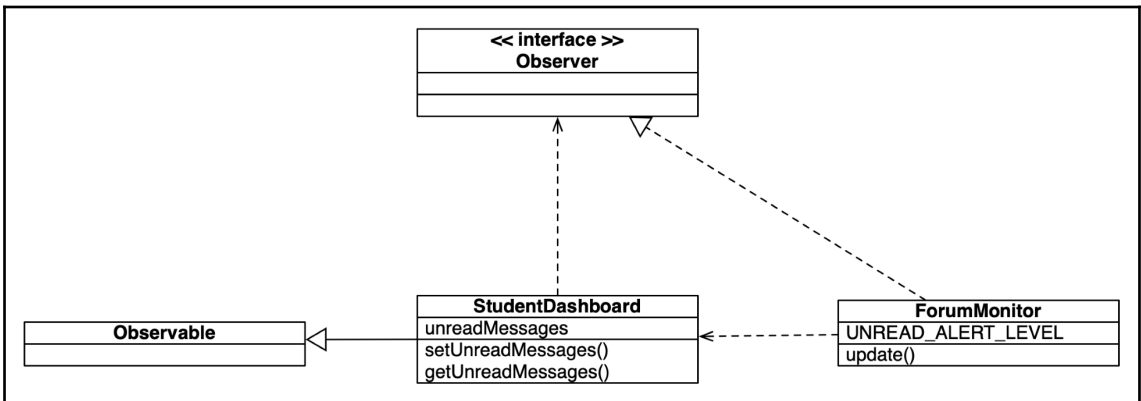
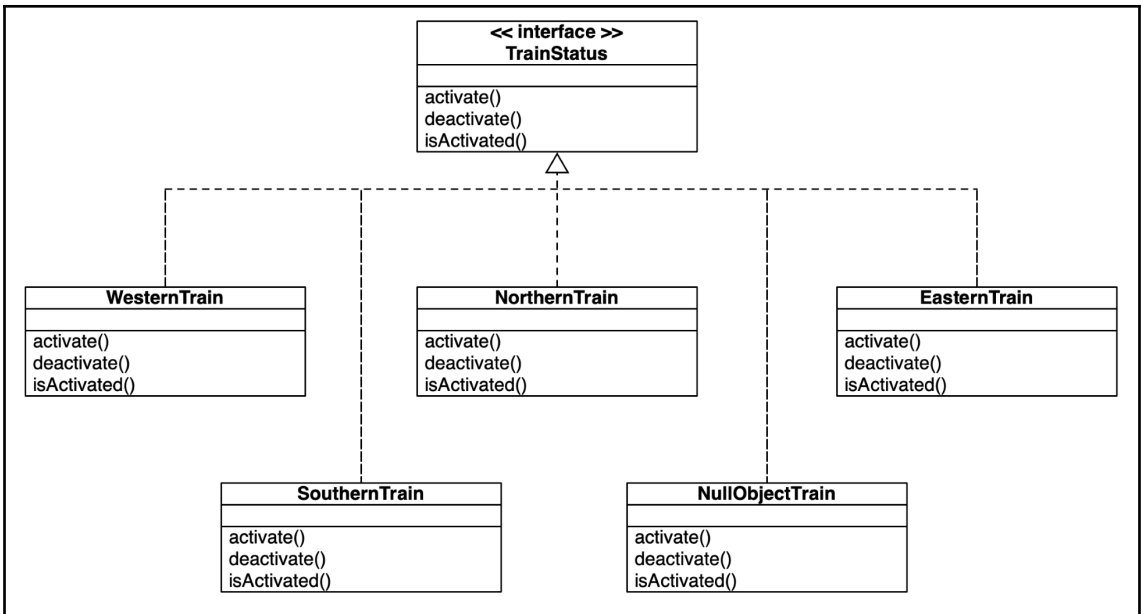
Sagittaron

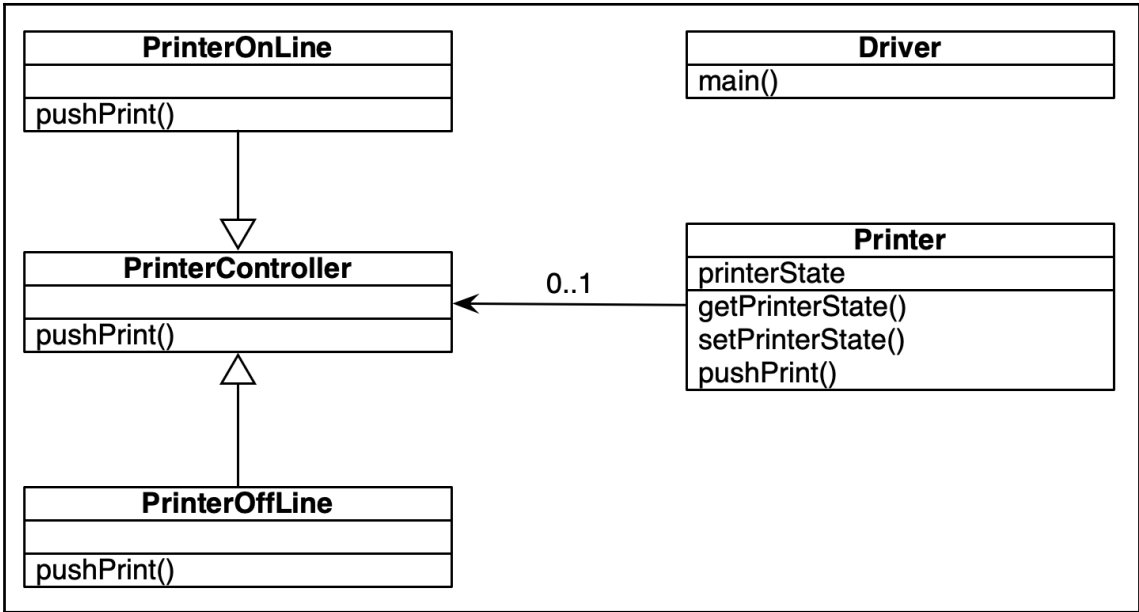
Scorpia

Tauron

Virgon

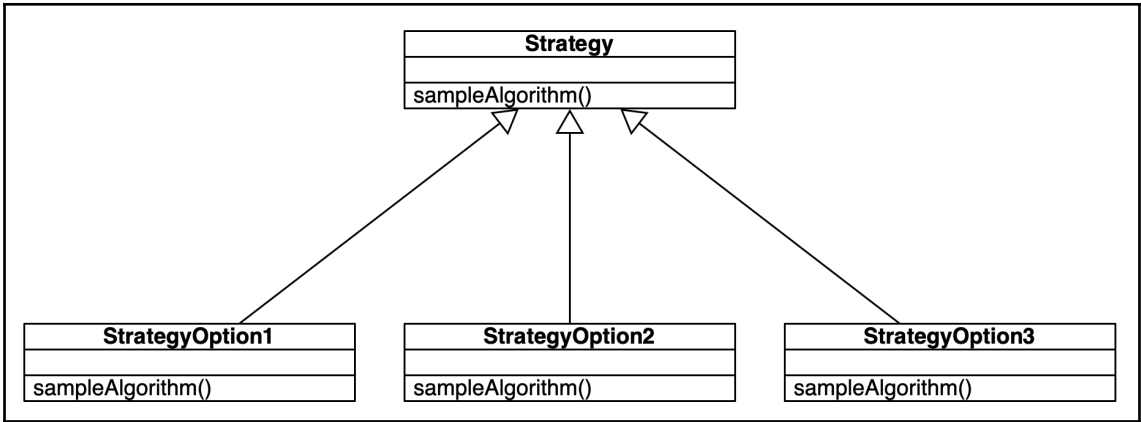






```

Powering printer on please wait. . .
Clearing buffer and shutting down. . .
Powering printer on please wait. . .
  
```



Chapter 4: Creational Design Patterns

Grandmother constructor executed.
Mother constructor executed.

```
public class Daughter {
```

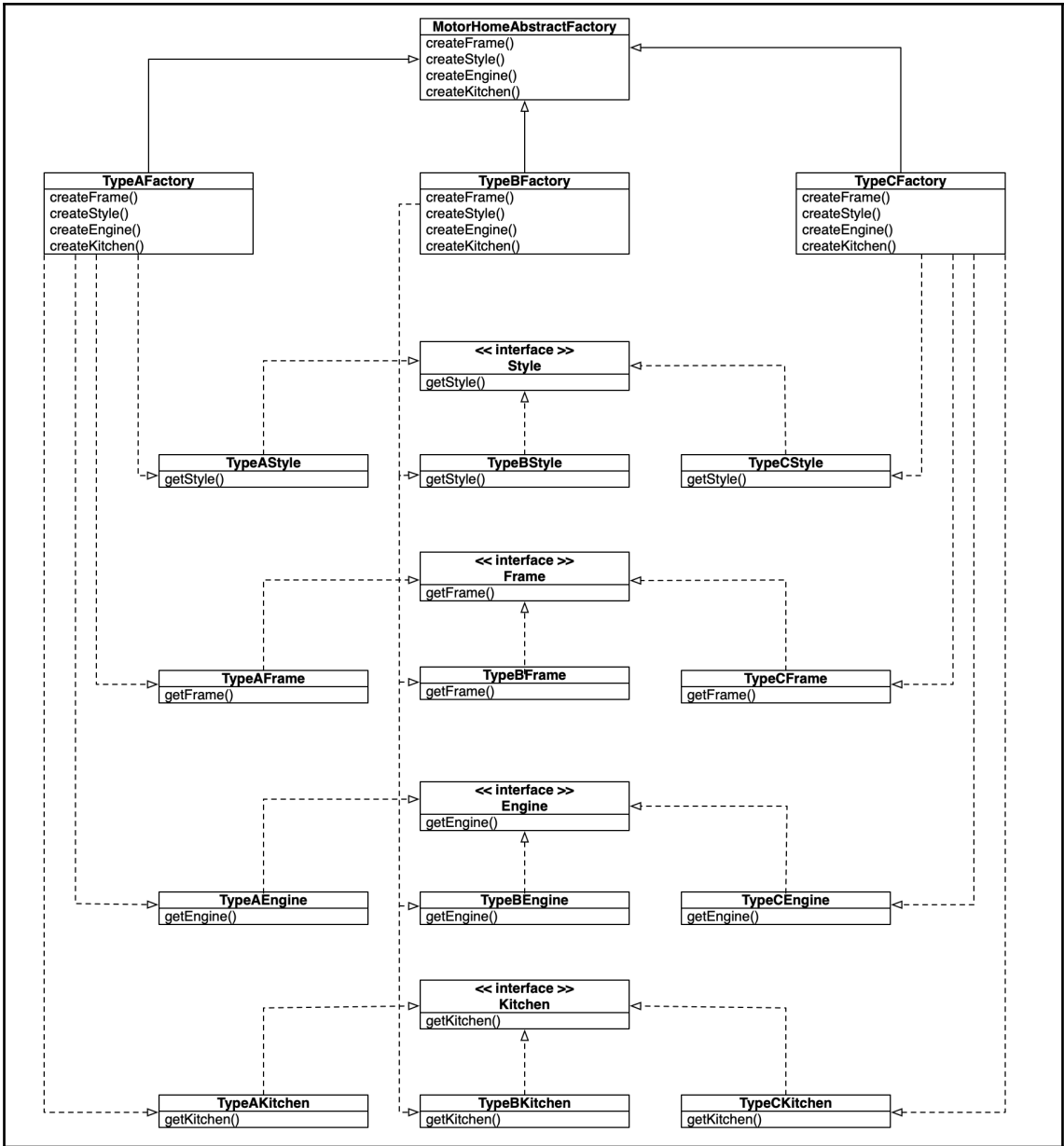
```
    public static void main(String[] args) {
```

```
        Mother mom = new Grandmother();
```

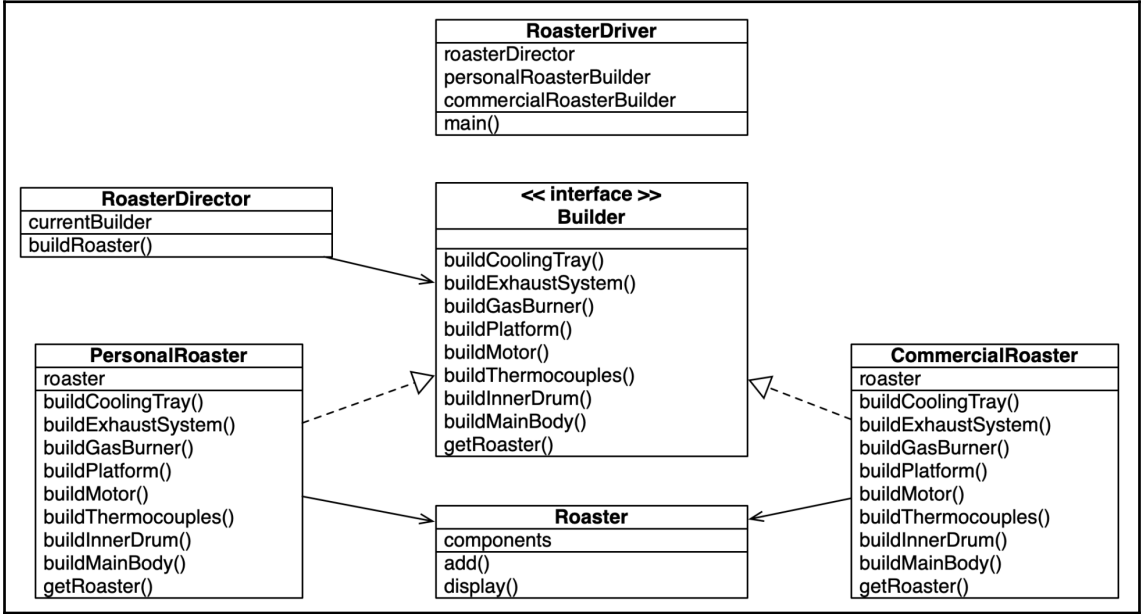
```
    }
```

```
}
```

'Grandmother' is abstract; cannot be instantiated



Type A motor home selected	Type B motor home selected	Type C motor home selected
Component list for TypeA motor home	Component list for TypeB motor home	Component list for TypeC motor home
[Type A] Style: Off the Grid	[Type B] Style: Weekender	[Type C] Style: Extended Trip
[Type A] Frame: Bus	[Type B] Frame: Camper Van	[Type C] Frame: Truck
[Type A] Engine: Ford V10	[Type B] Engine: Ford Transit 350 HD	[Type C] Engine: Ford E-450
[Type A] Kitchen: Full	[Type B] Kitchen: Compact	[Type C] Kitchen: Full

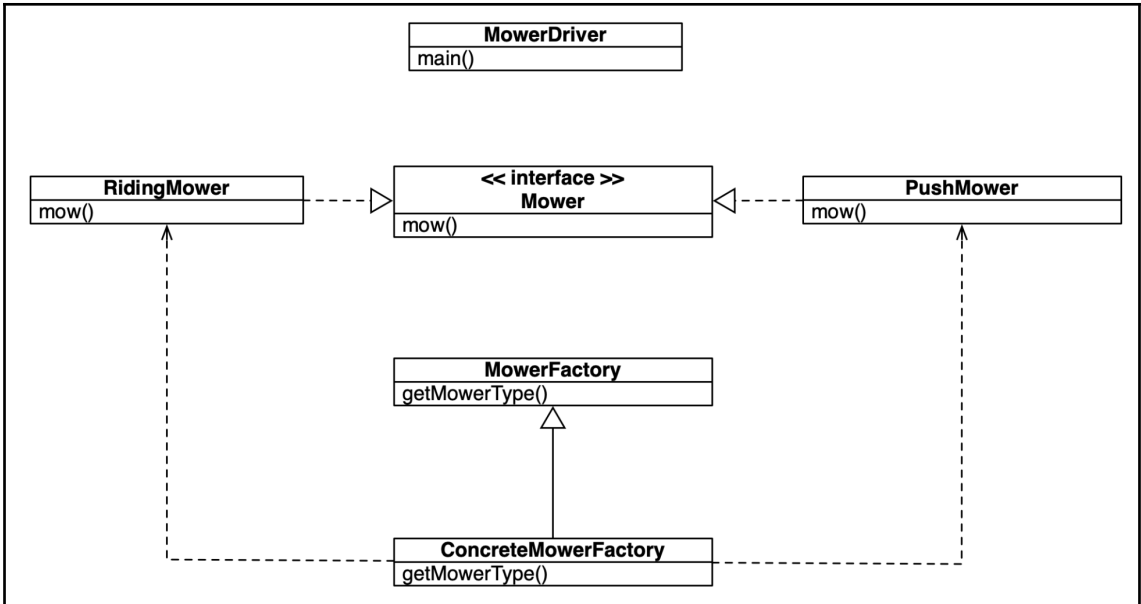


ROASTER BUILD:

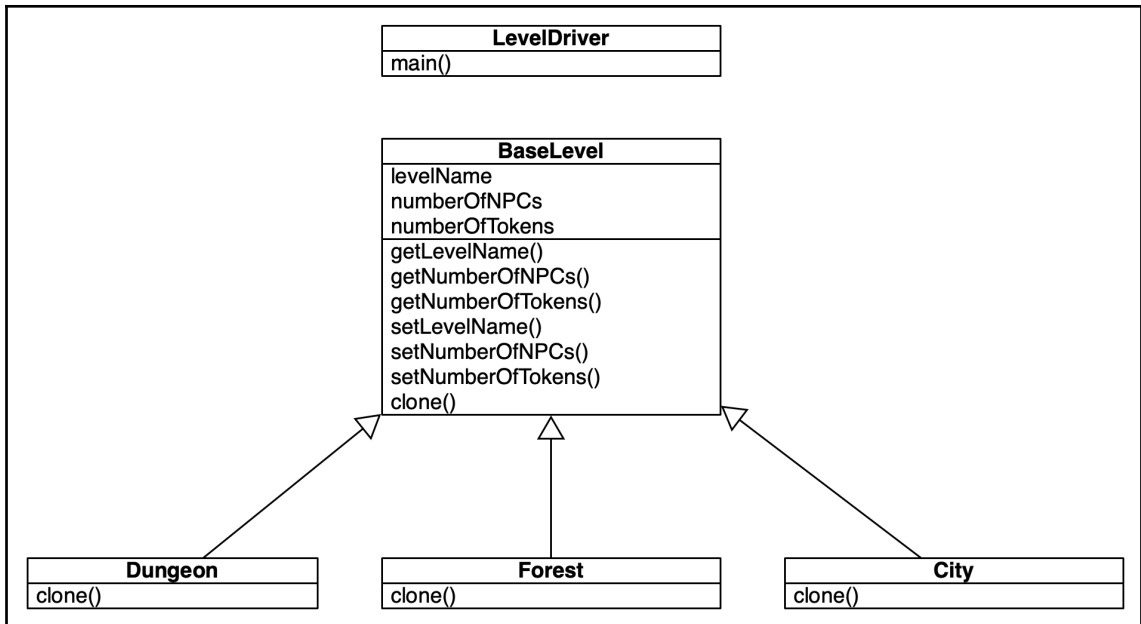
Personal Roaster Cooling Tray added
Personal Roaster Exhaust System added
Personal Roaster Gas Burner added
Personal Roaster Inner Drum added
Personal Roaster Main body added
Standard Motor added
Standard Thermocouples added

ROASTER BUILD:

Commercial Roaster Cooling Tray added
Commercial Roaster Exhaust System added
Commercial Roaster Gas Burner added
Commercial Roaster Inner Drum added
Commercial Roaster Main body added
Standard Motor added
Standard Platform added
Standard Thermocouples added



MOWER SELECTION HELPER
Riding mowers provide safety and comfort.
Push mowers are good for small yards.



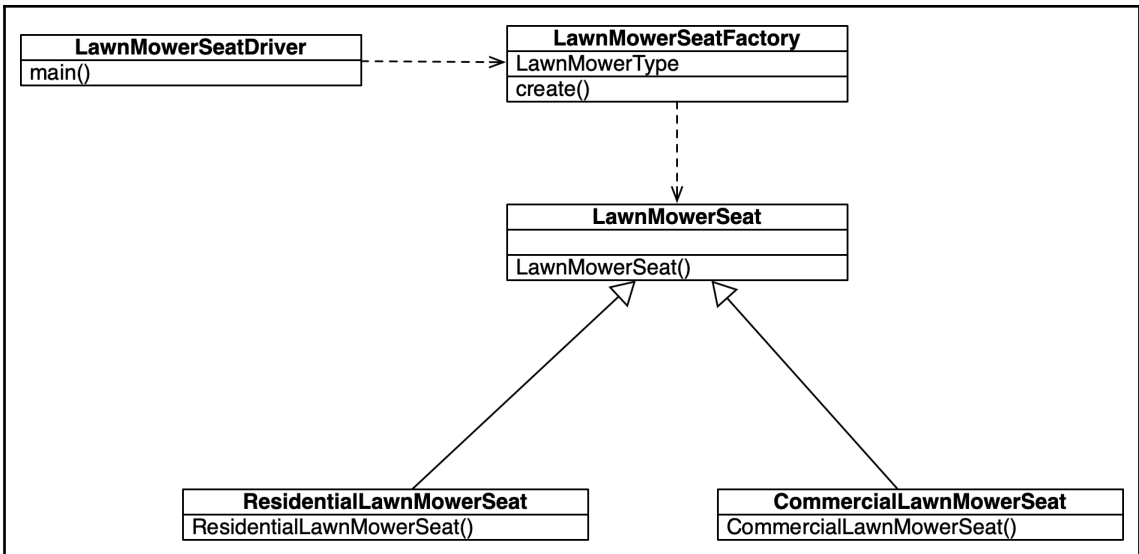
GAME LEVEL CREATION

Dungeon Level information

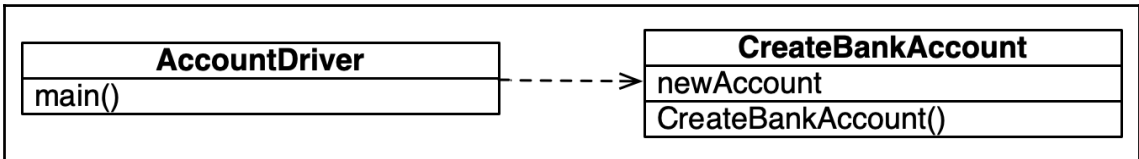
Level Name : Slasher's Dungeon Level 1
 Number of NPCS : 500
 Number of Tokens: 80

Cloned Level information

Level Name : Slasher's Dungeon Level 2
 Number of NPCS : 1000
 Number of Tokens: 40

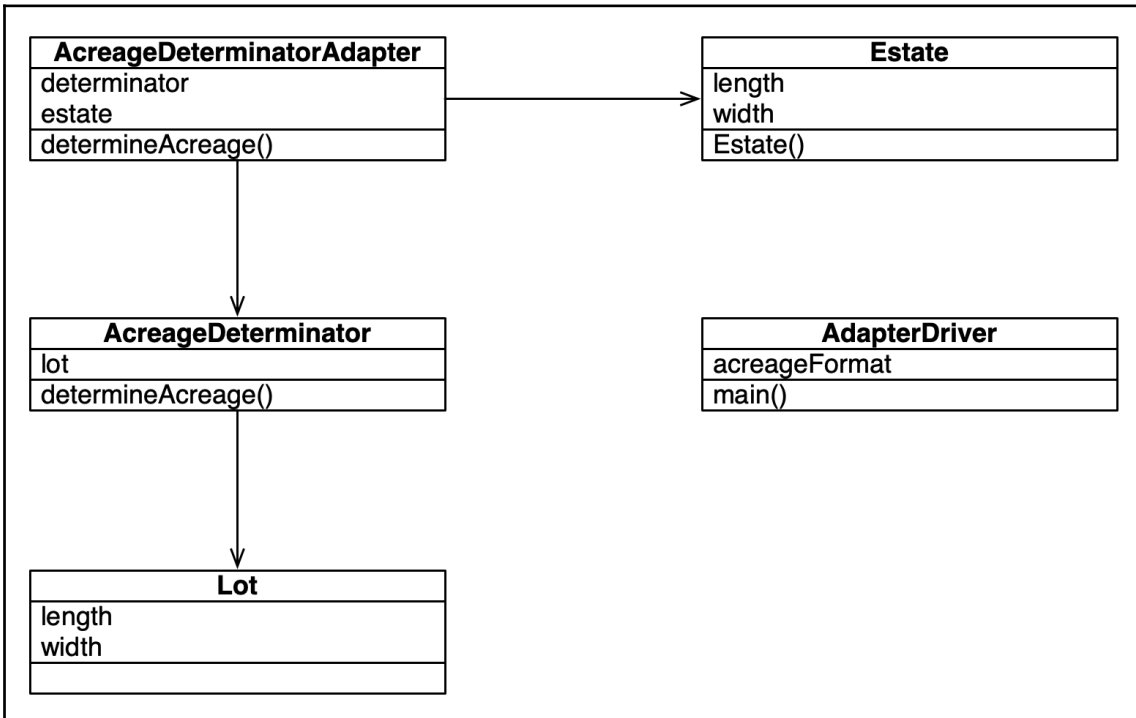


Residential lawnmower seat with seat belt created.
Commercial lawnmower seat with roll bar created.

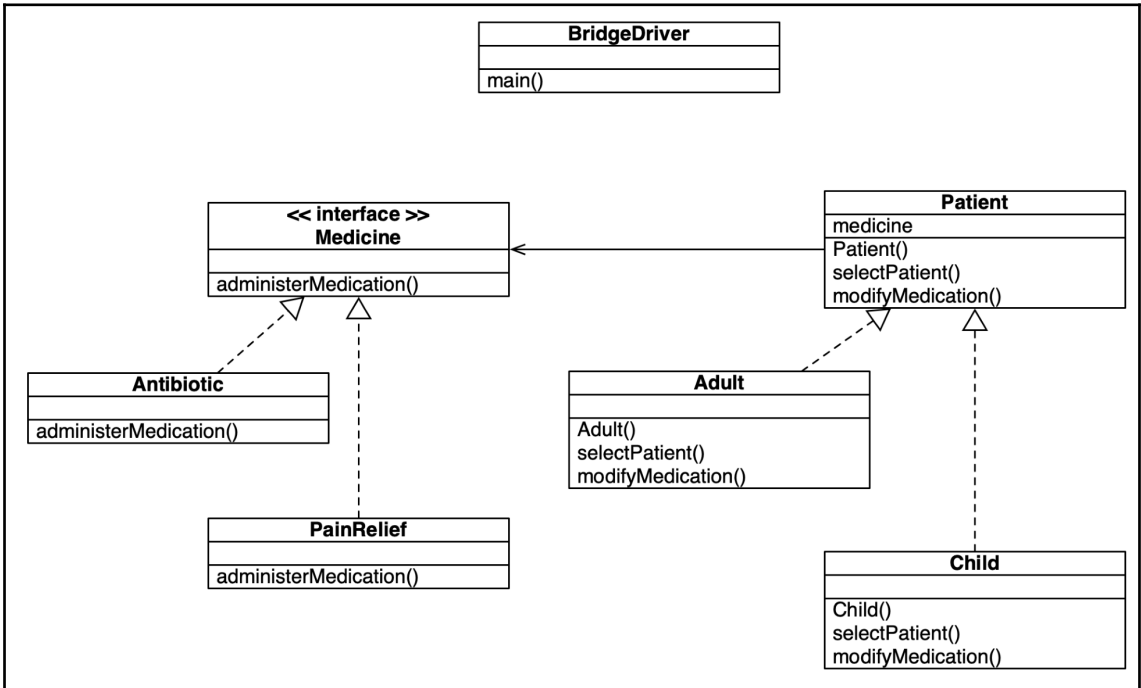
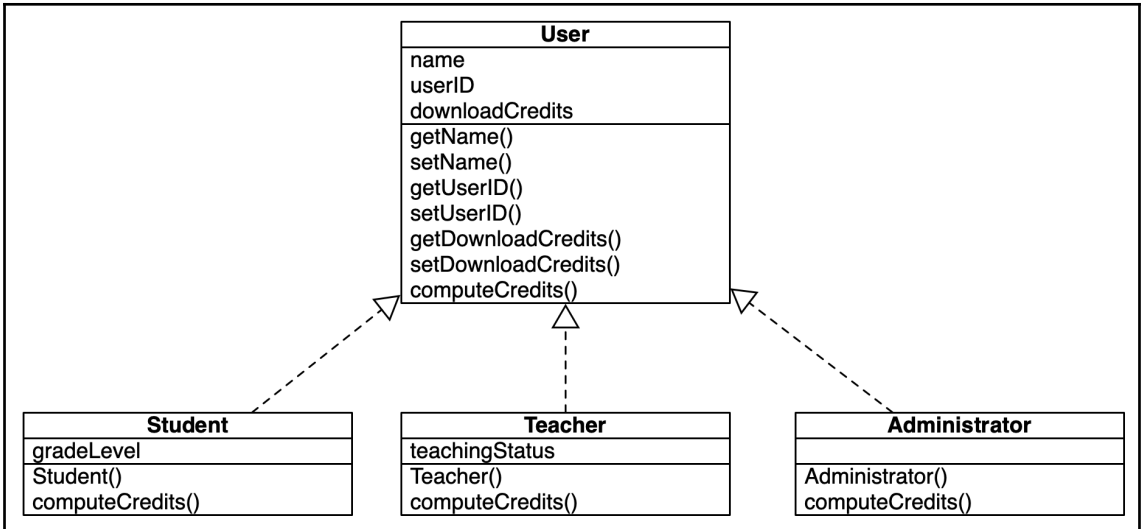


Bank Account Number Generation System
New Account created.
Account already opened.

Chapter 5: Structural Design Patterns



Real Estate Land Area Calculation
Estate Acreage: 333.96



Medication Administering System

Adult Patient:

Doctor's Order: 2 antibiotic pills administered.

Doctor-ordered dosage change: plus 2 pills.

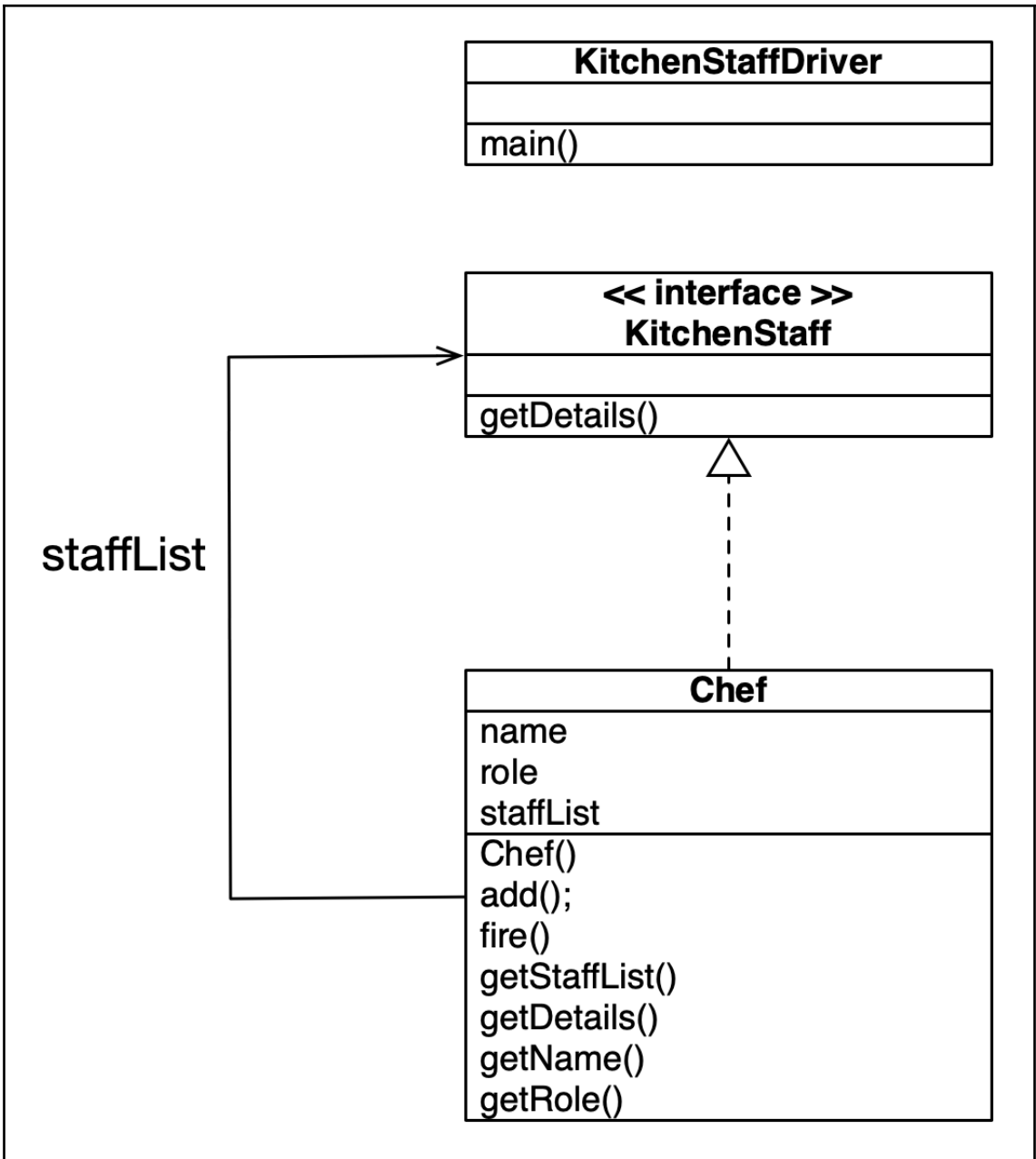
Doctor's Order: 4 antibiotic pills administered.

Child Patient:

Doctor's Order: 4 pain relief pills administered.

Doctor-ordered dosage change: minus 2 pills.

Doctor's Order: 2 pain relief pills administered.



Kitchen Staff Management System

Gemma Patron is assigned the role of Executive Chef

Tiksha Century is assigned the role of Head Chef

Tilly Hope is assigned the role of Sous Chef

Pat Stringe is assigned the role of Sous Chef

Seth Arpage is assigned the role of Line Chef

Diego Salazar is assigned the role of Line Chef

Cersei Butrix is assigned the role of Line Chef

Marissa Parth is assigned the role of Line Chef

Johnny Ferd is assigned the role of Commis Chef

Kay Fleping is assigned the role of Commis Chef

KITCHEN STAFF UPDATE

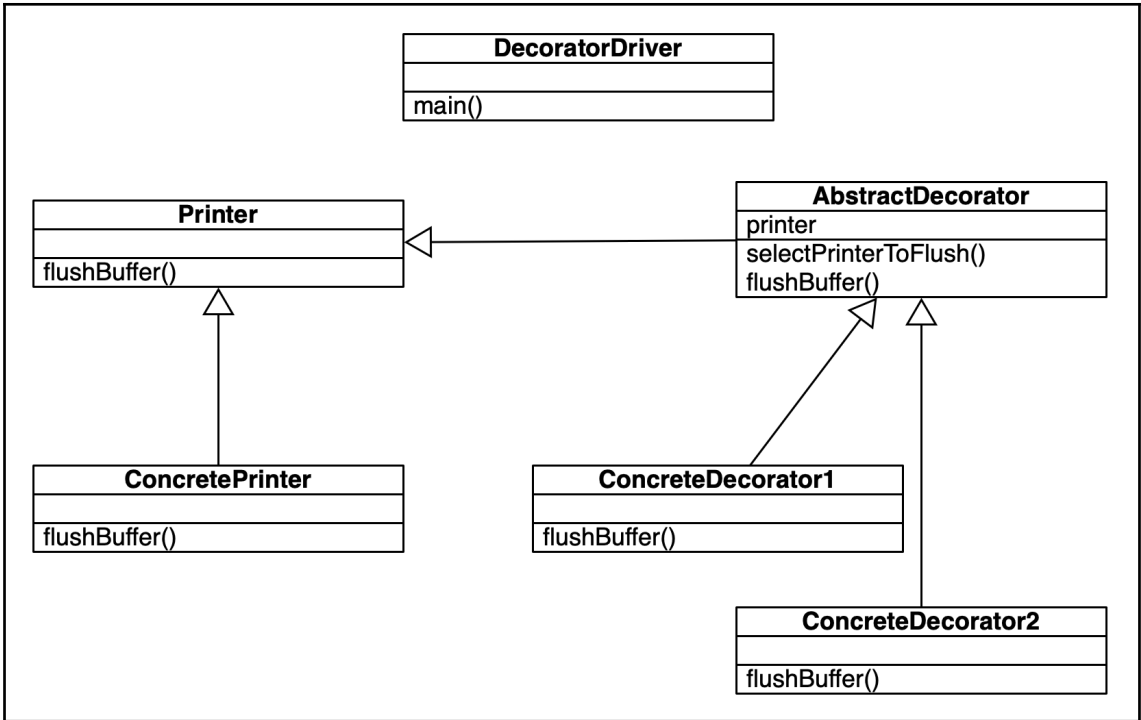
Seth Arpage, Line Chef, has been terminated.

Here is the updated list of Line Chefs:

Diego Salazar is assigned the role of Line Chef

Cersei Butrix is assigned the role of Line Chef

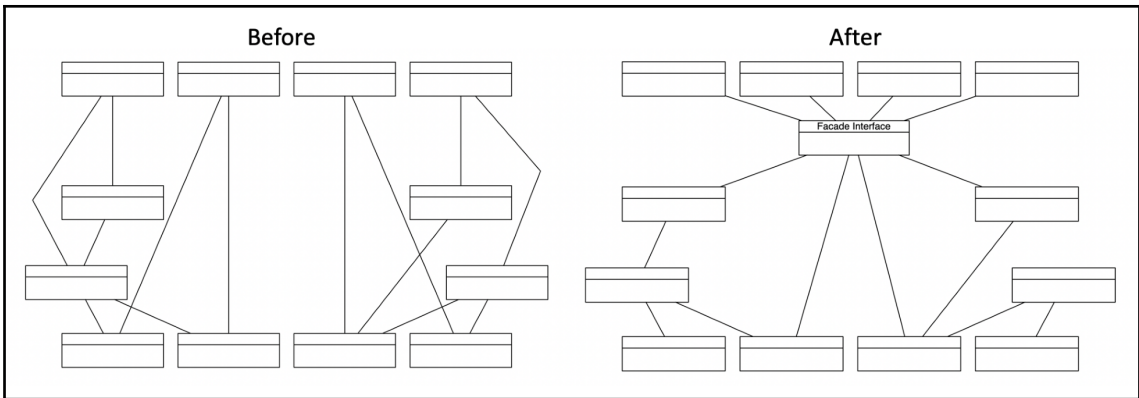
Marissa Parth is assigned the role of Line Chef



```

=====
Printer Buffer Flusher Demo
=====
Message from Concrete Printer: Printer Buffer Flushed
Message from Concrete Decorator 1: Printer Buffer Flushed

[ START ] Concrete Decorator 2 Wrapper [ START ]
Message from Concrete Printer: Printer Buffer Flushed
Message from Concrete Decorator 1: Printer Buffer Flushed
Message from Concrete Decorator 2: Printer Buffer Flushed
[ END ] Concrete Decorator 2 Wrapper [ END ]
  
```



CH5Facade

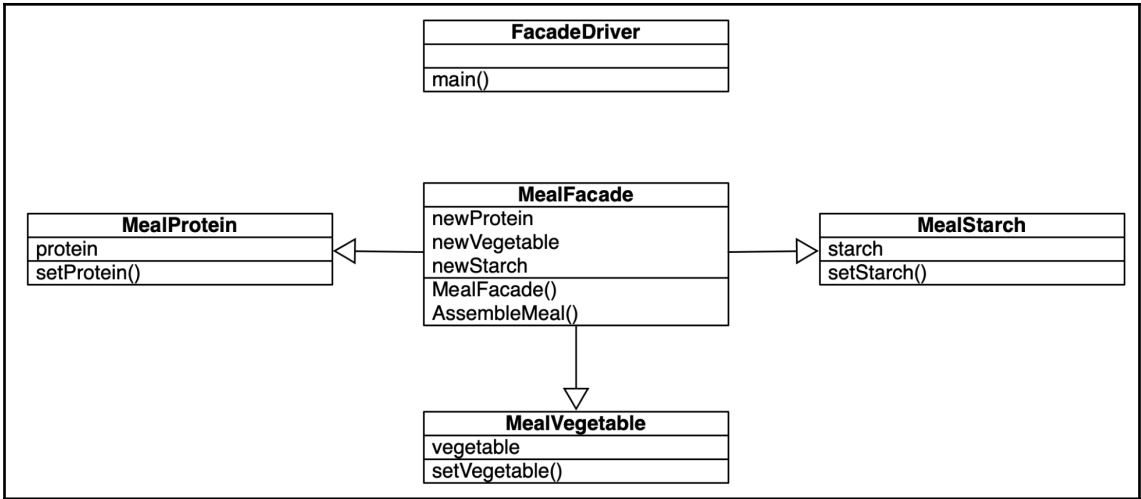
- FacadeDriver

MealComponents

- MealProtein
- MealVegetable
- MealStarch

MealFacade

- MealFacade

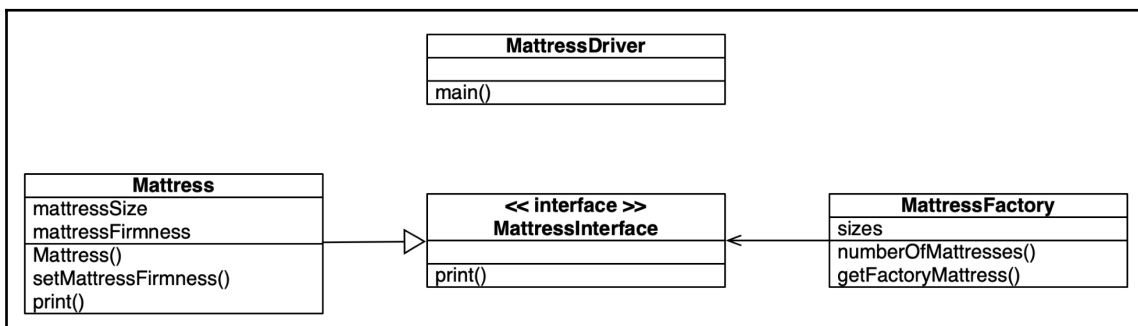


Meal Assembly Service Demo

Meal assembly process initiated. . .
Protein (Steak) added to meal.
Vegetable (Asparagus) added to meal.
Starch (Wild Rice) added to meal.
Meal assembly process completed. . .

Meal assembly process initiated. . .
Protein (Chicken) added to meal.
Vegetable (Green Beans) added to meal.
Starch (Potato Wedges) added to meal.
Meal assembly process completed. . .

Meal assembly process initiated. . .
Protein (Meatloaf) added to meal.
Vegetable (Brussel Sprouts) added to meal.
Starch (Mashed Potatoes) added to meal.
Meal assembly process completed. . .



Mattress Manufacturing Factory Demo

A Crib Mattress did not exist, but does now

 This is a Firm Crib mattress.

 This is a Firm Crib mattress.

 This is a Firm Crib mattress.

 This is a Firm Crib mattress.

 This is a Firm Crib mattress.

A Twin Mattress did not exist, but does now

 This is a Soft Twin mattress.

 This is a Soft Twin mattress.

 This is a Soft Twin mattress.

 This is a Soft Twin mattress.

 This is a Soft Twin mattress.

A Full Mattress did not exist, but does now

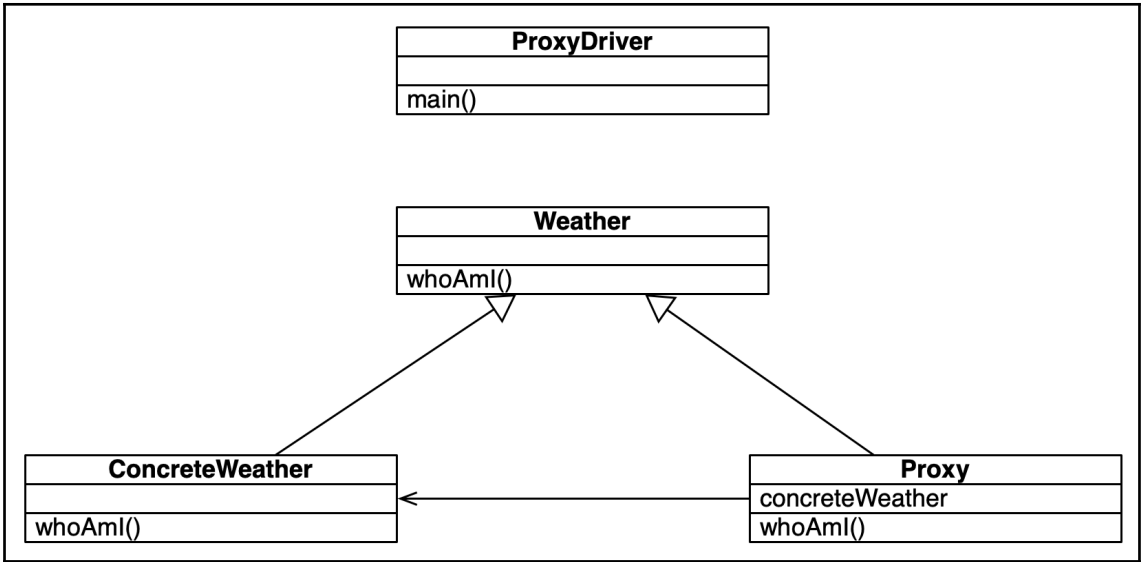
 This is a Extra Firm Full mattress.

 This is a Extra Firm Full mattress.

 This is a Extra Firm Full mattress.

 This is a Extra Firm Full mattress.

 This is a Extra Firm Full mattress.



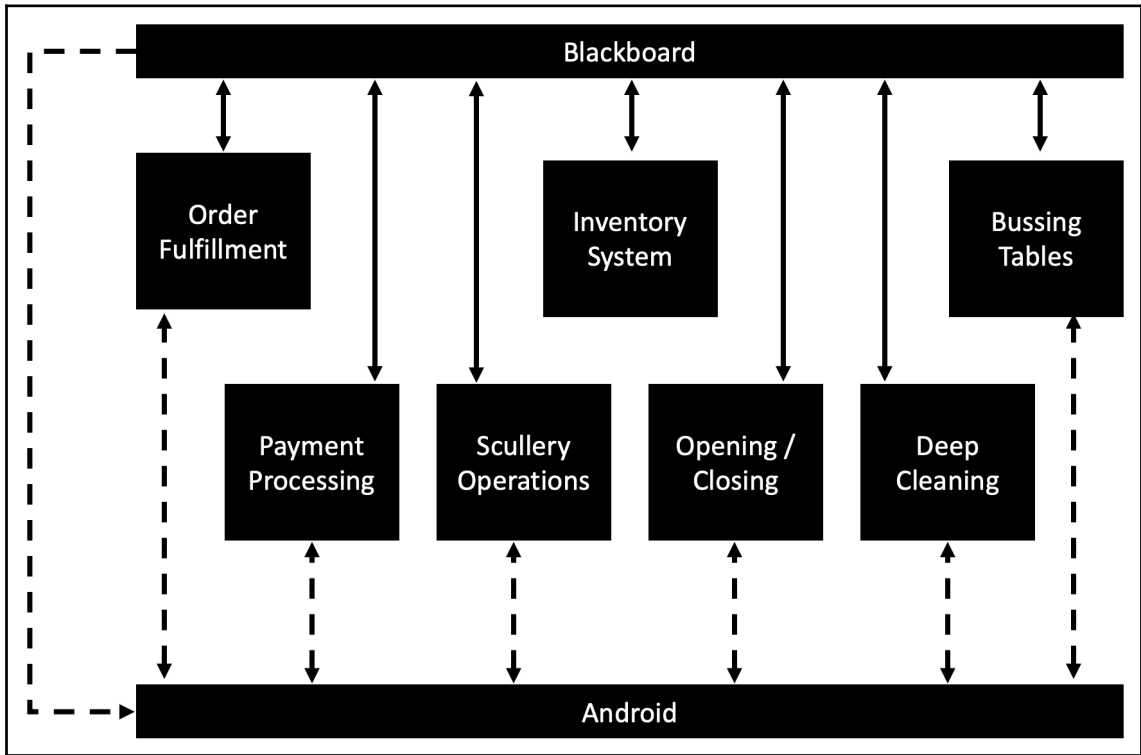
```

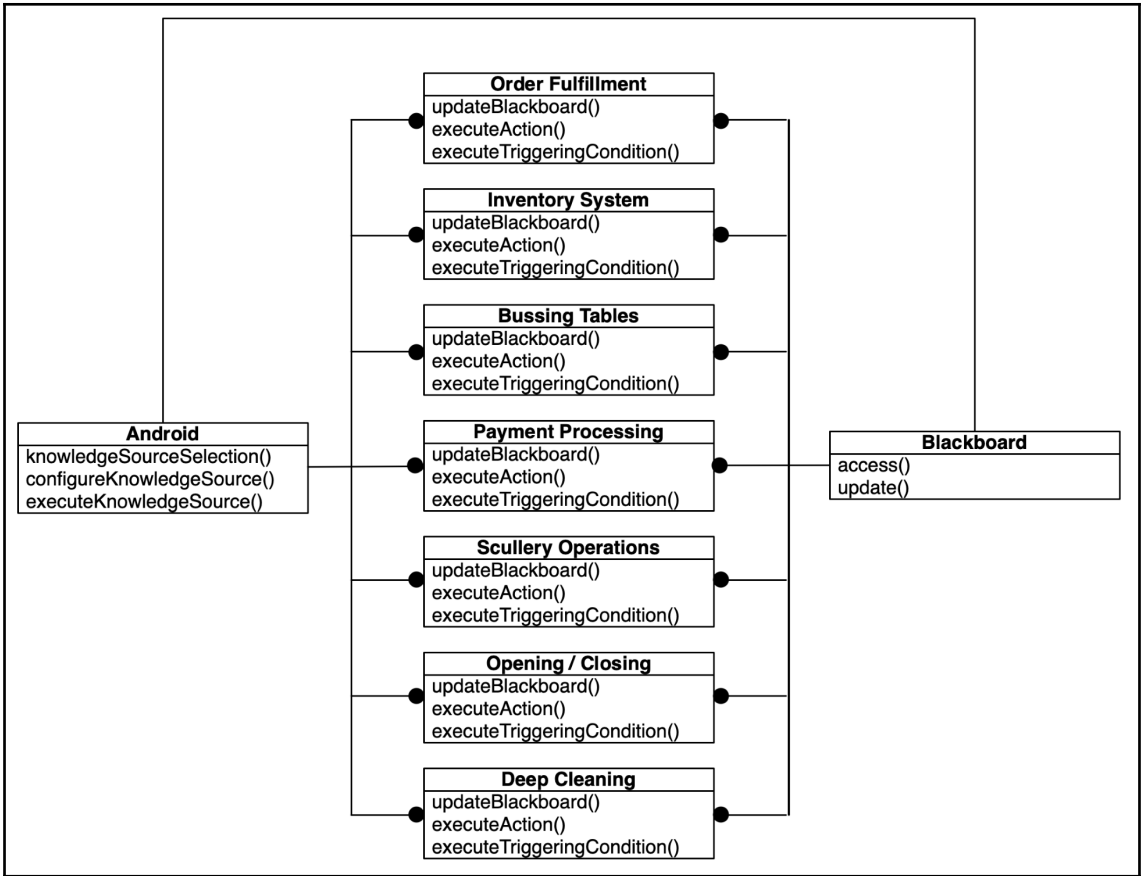
=====
Proxy Weather Forecast Demo
=====

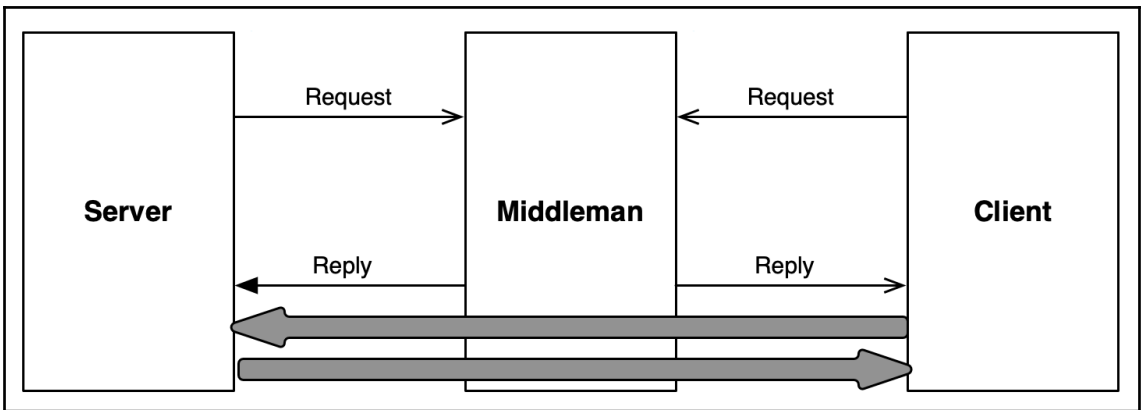
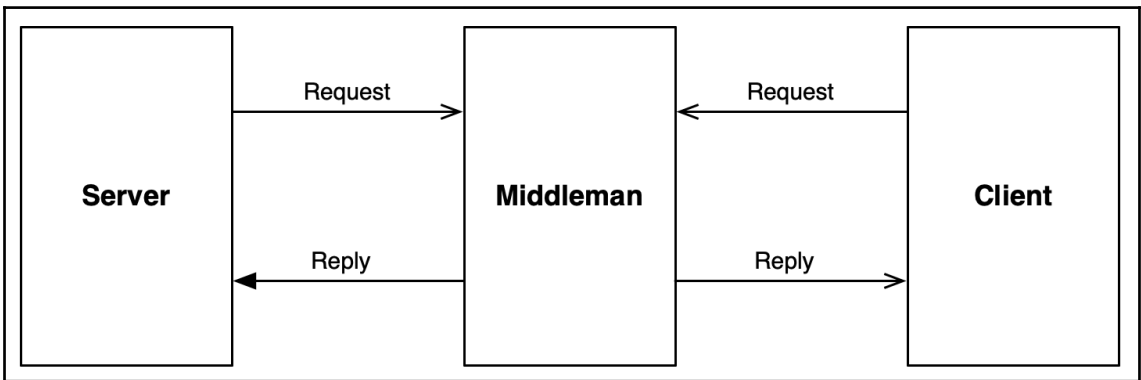
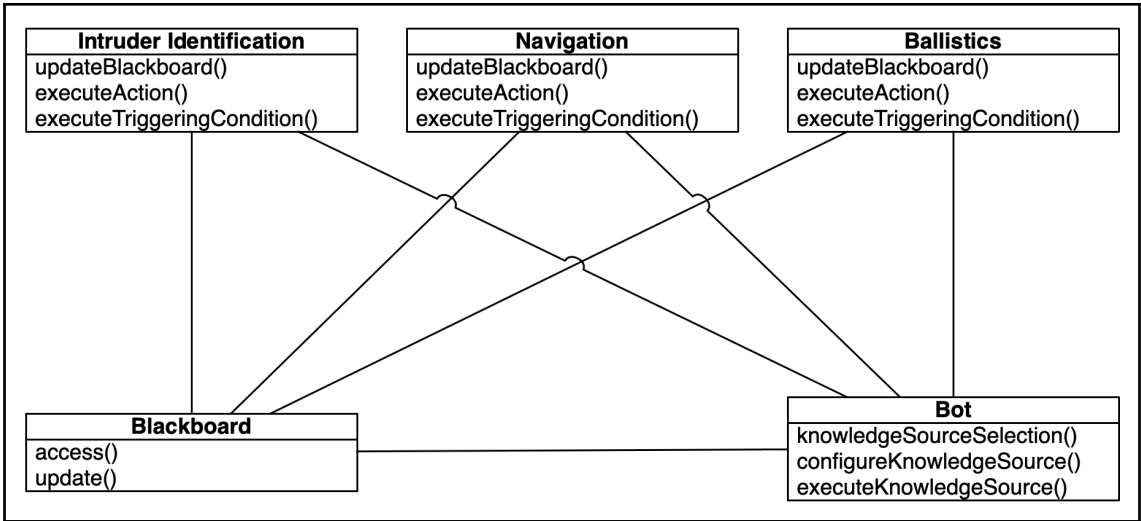
Method Call from Proxy class
    Weather forecast is overcast and rain

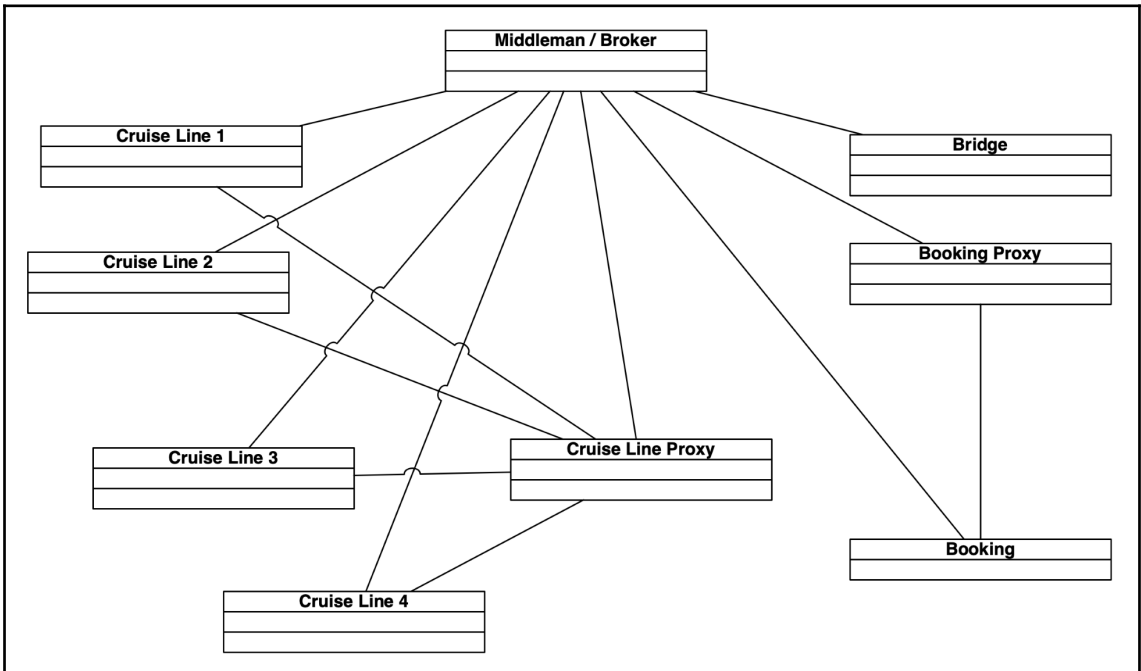
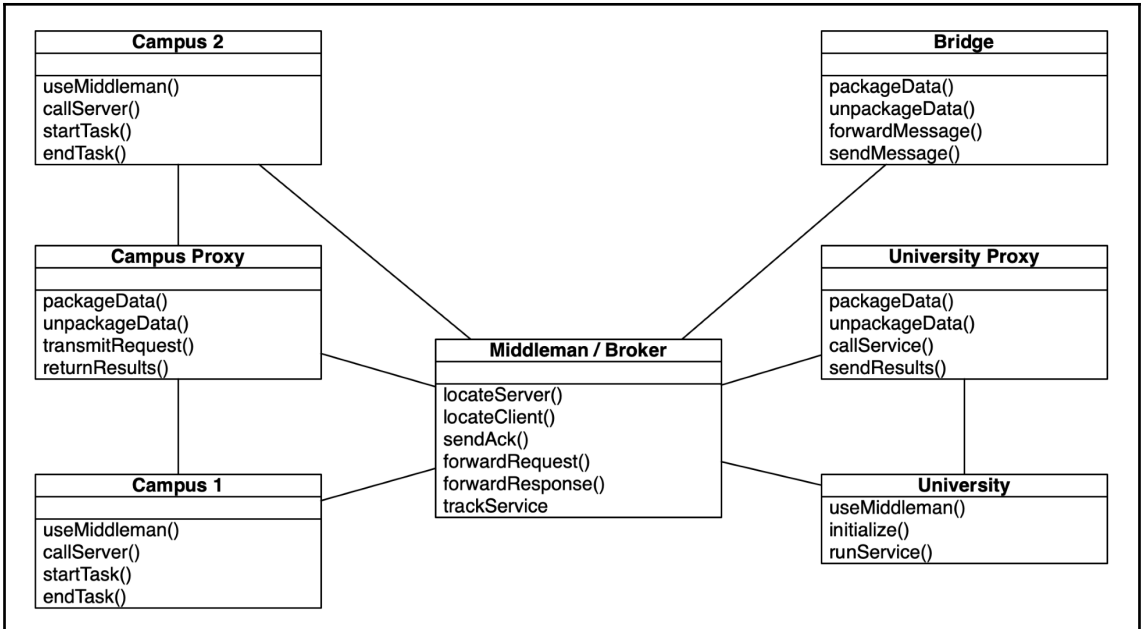
Method Call from ConcreteWeather class
    Weather forecast is sunny
  
```

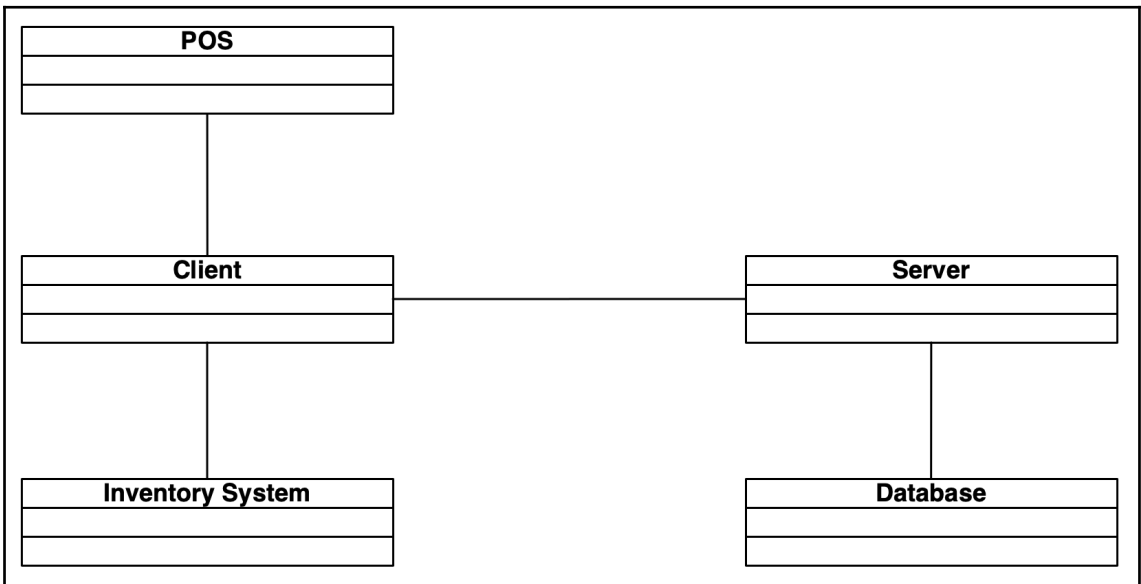
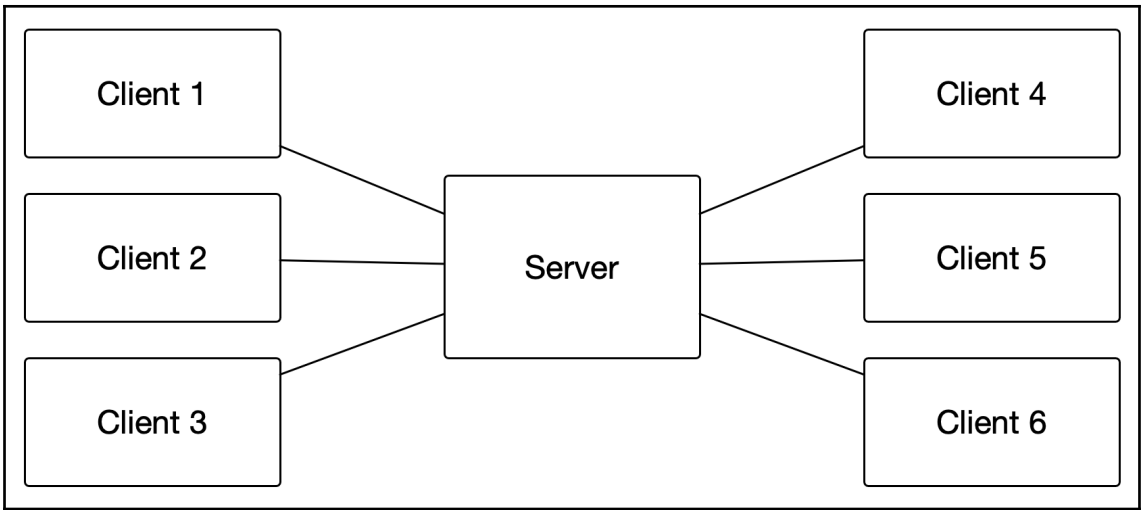
Chapter 6: Architectural Patterns - Part I

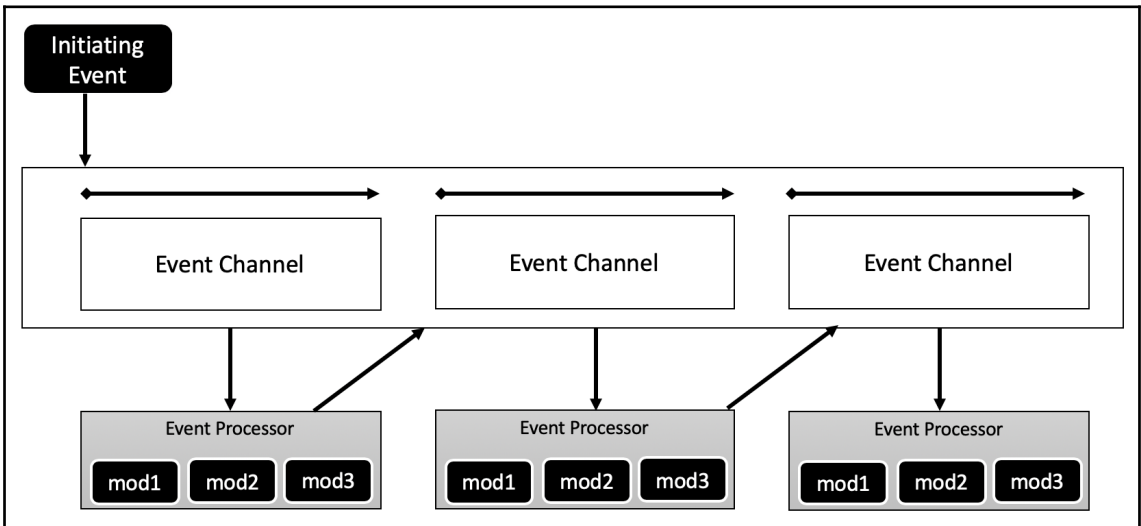
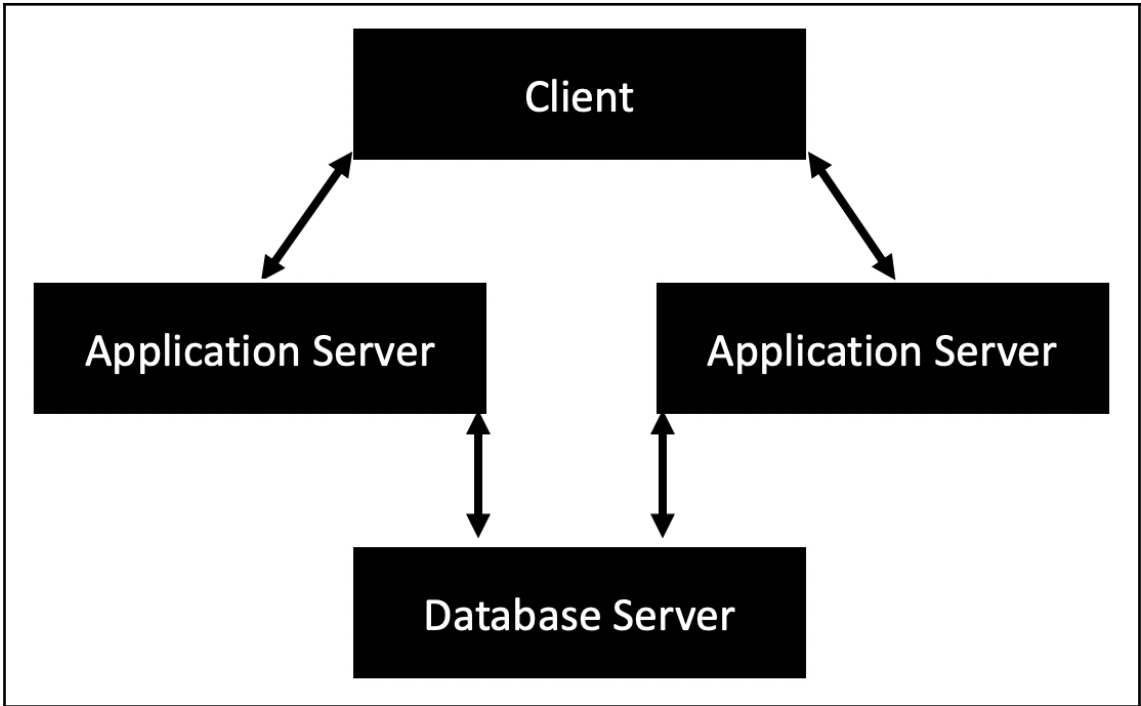


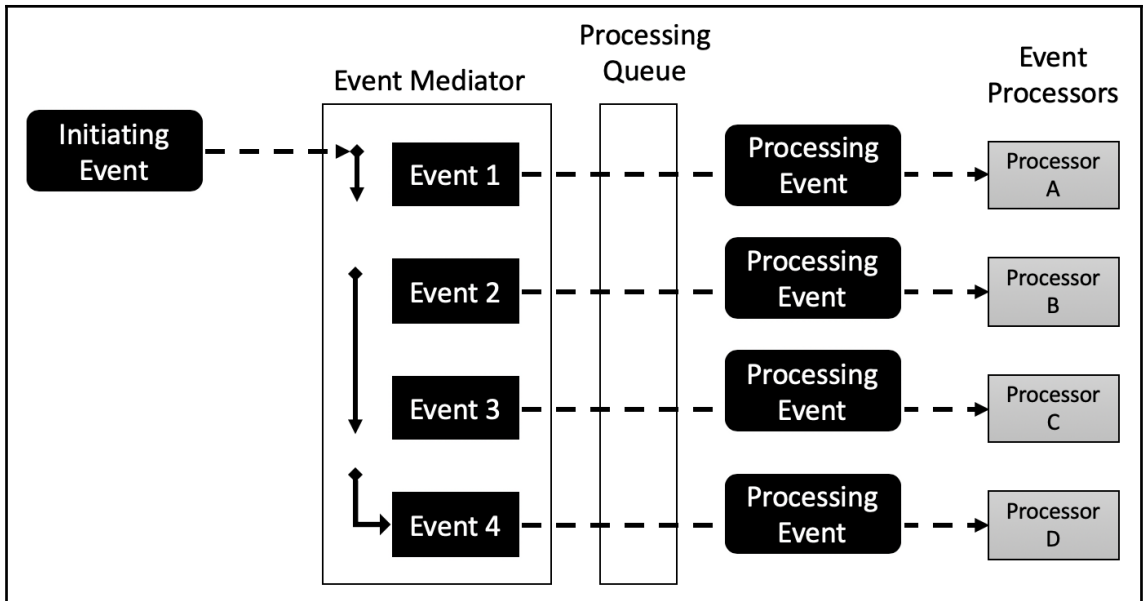


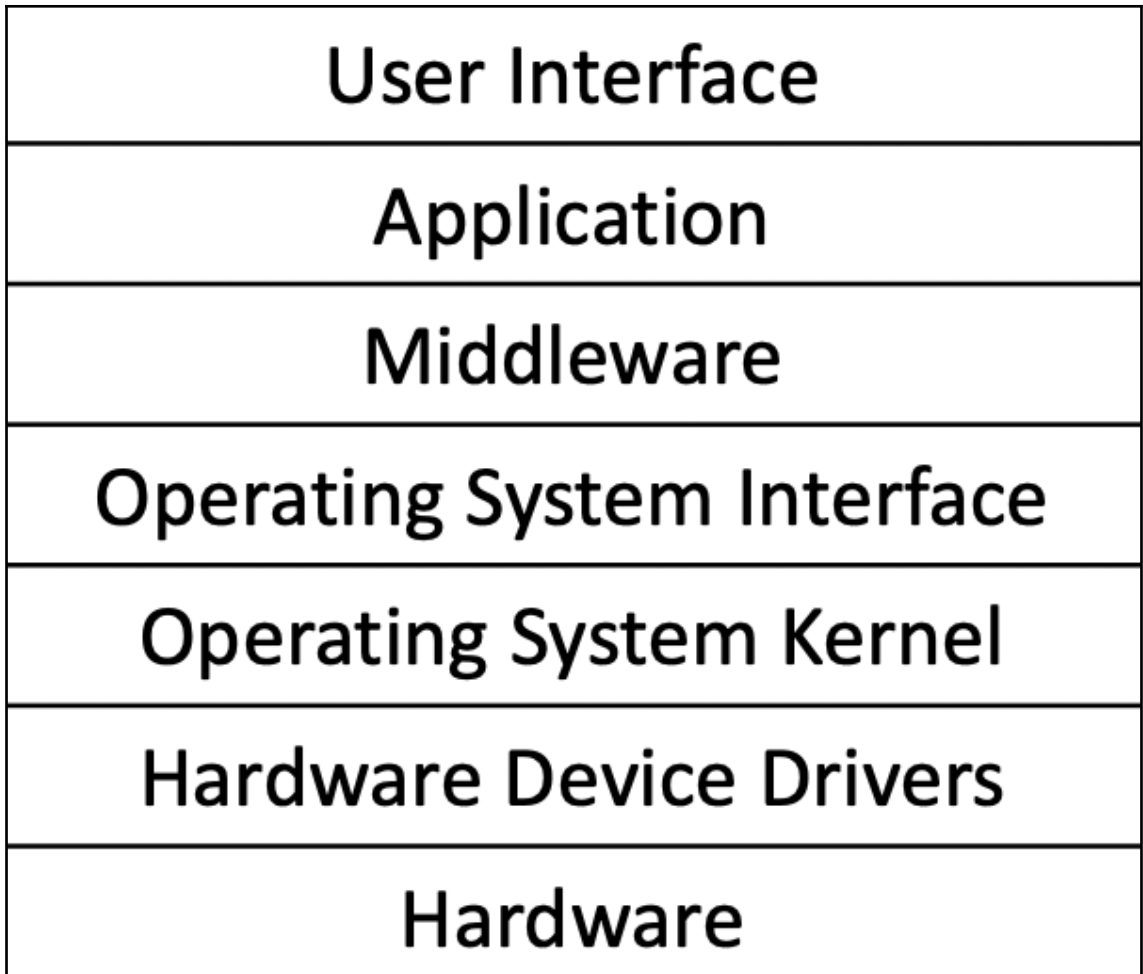


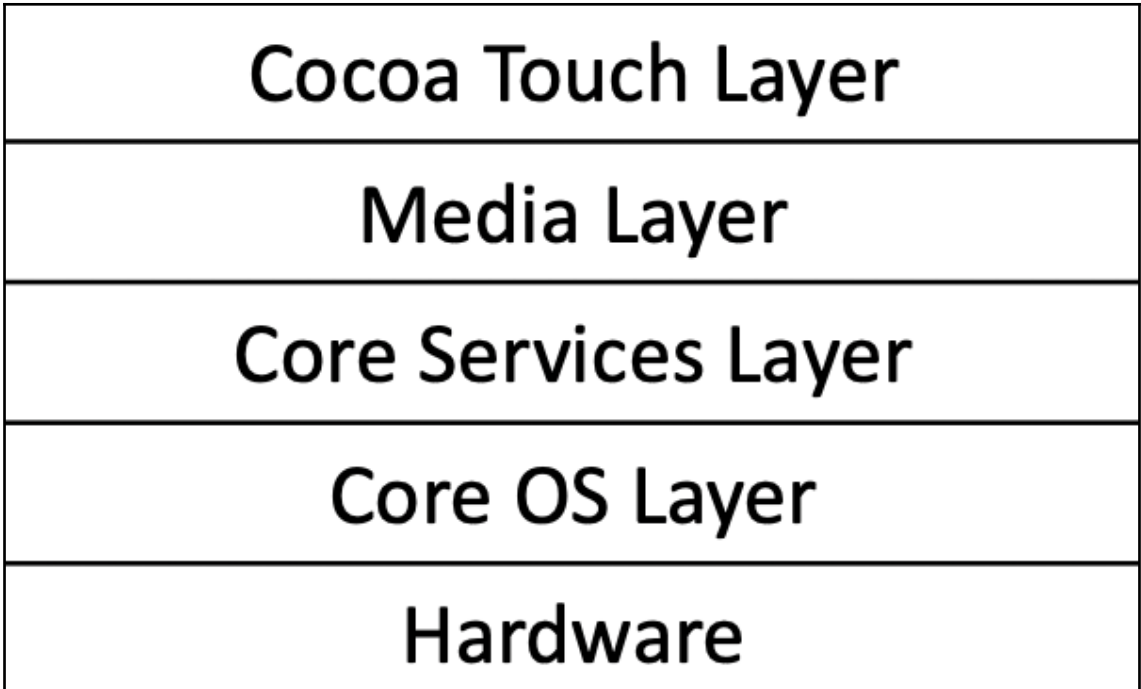




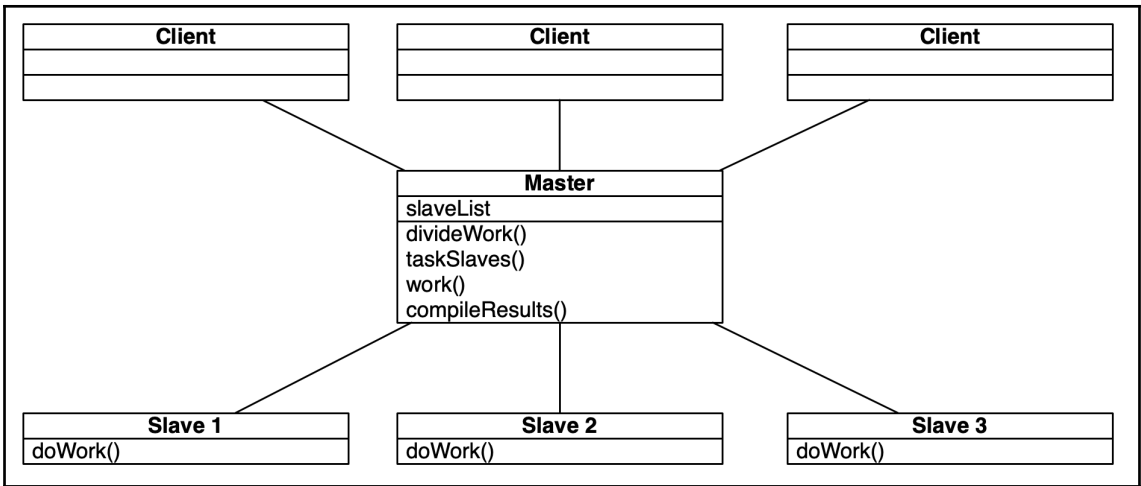


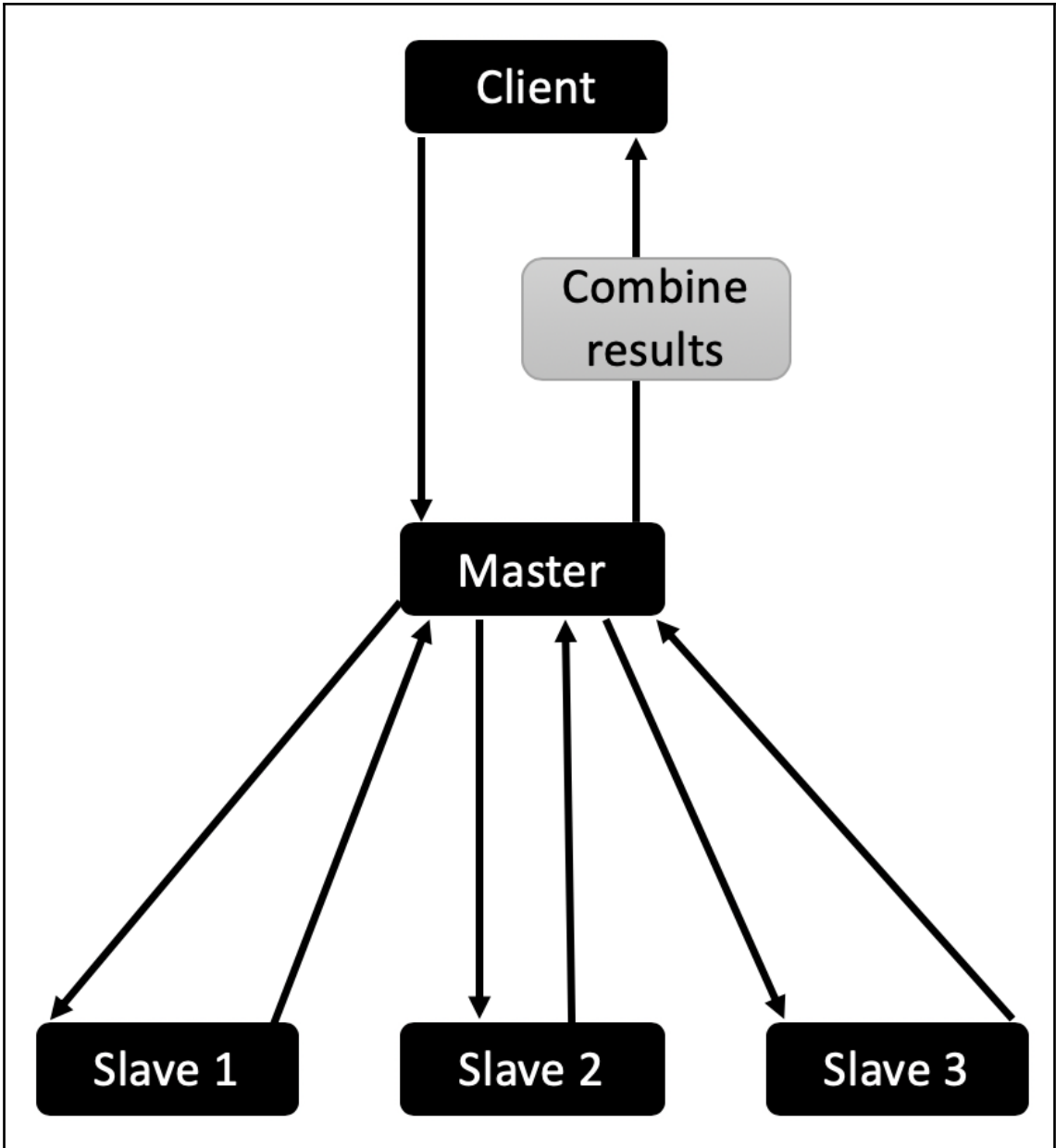


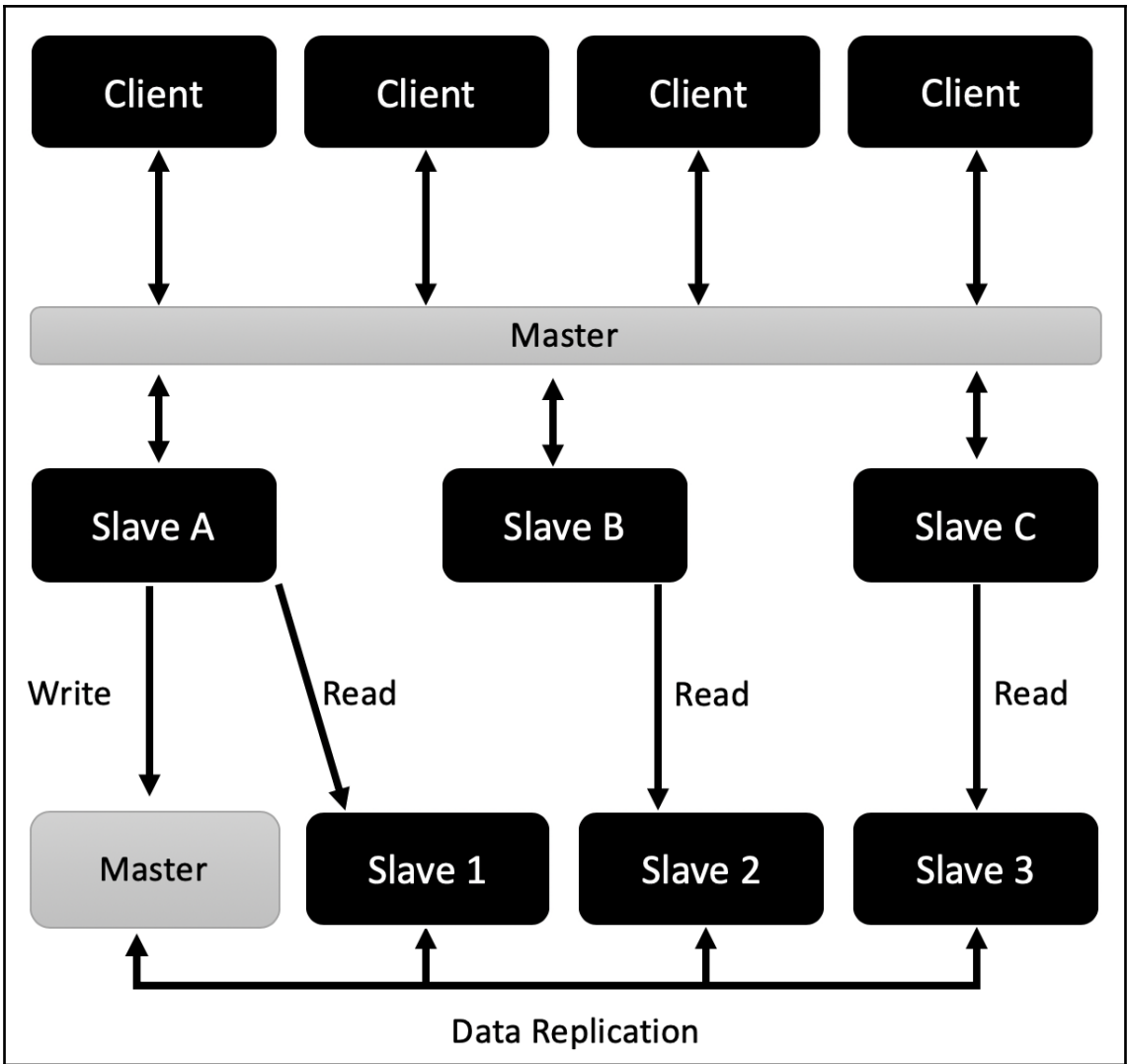


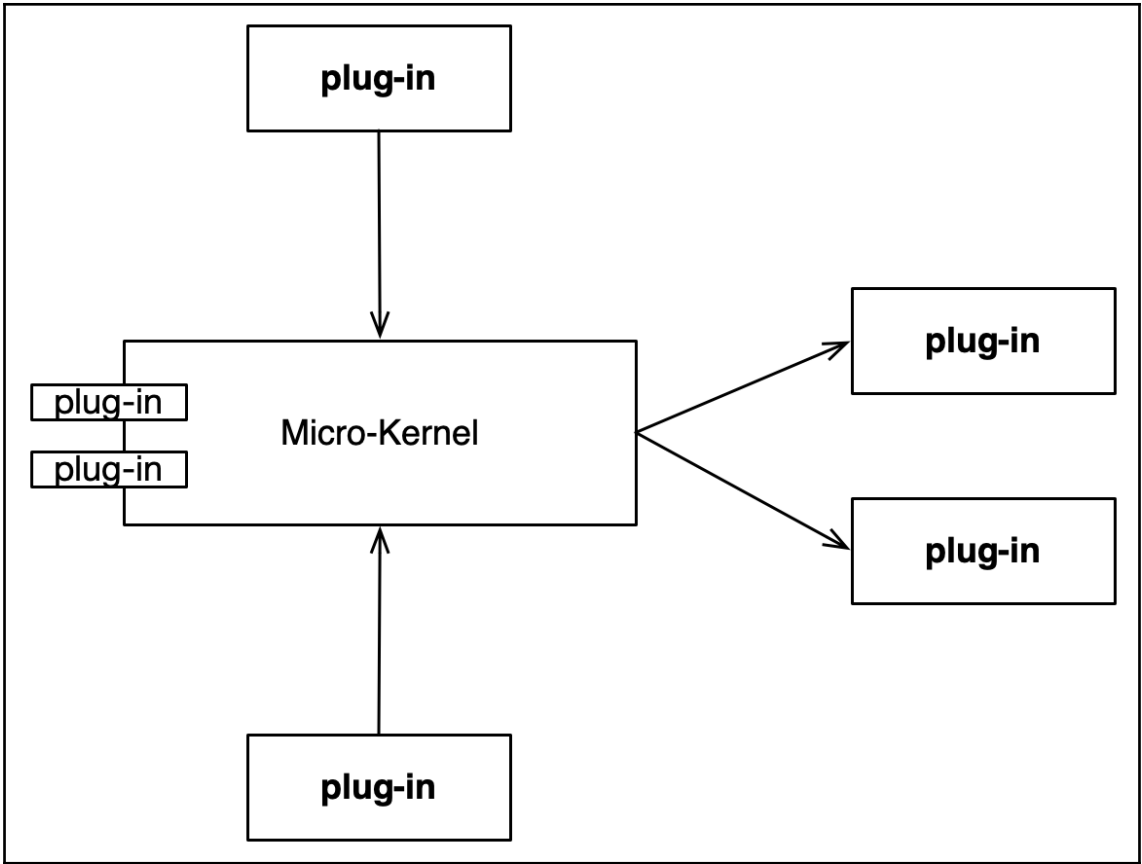


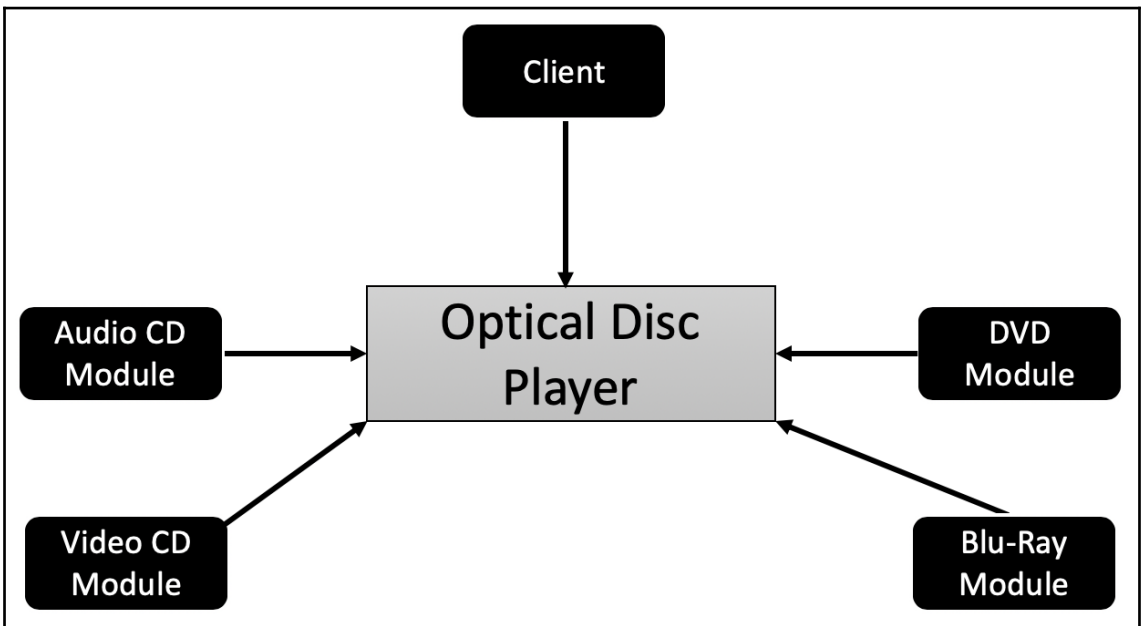
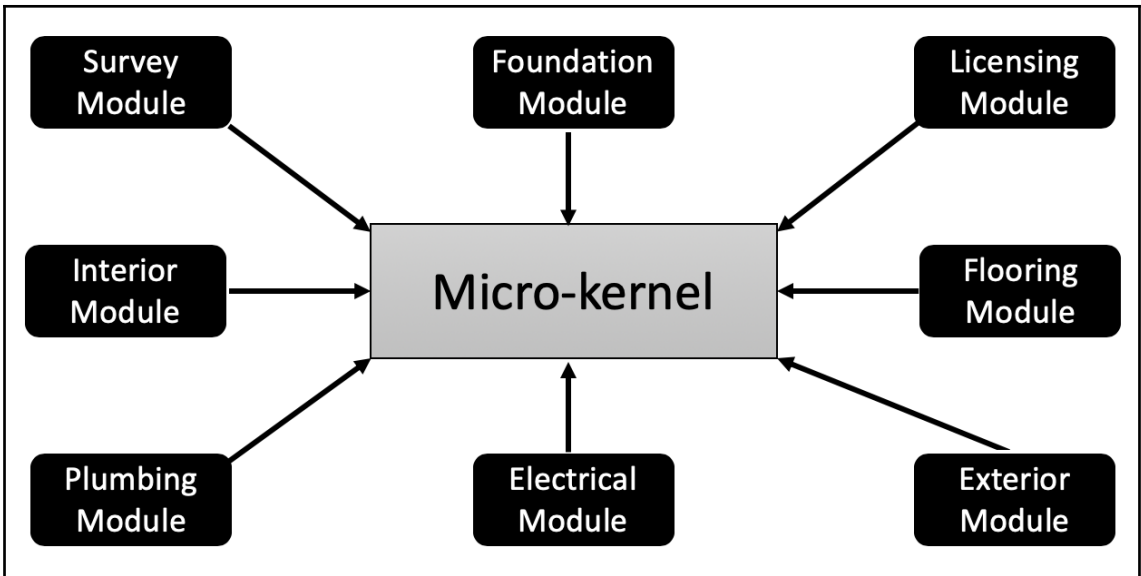
Presentation Layer	component	closed
Business Layer	component	closed
Services Layer	component	closed
Database Layer	component	closed



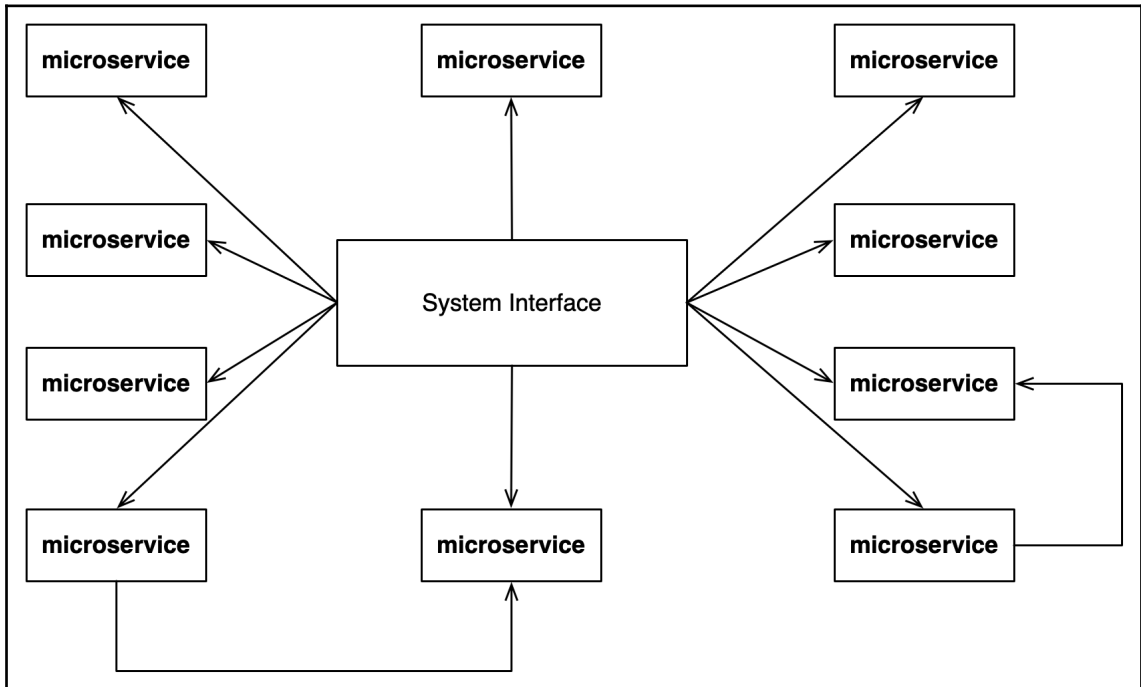


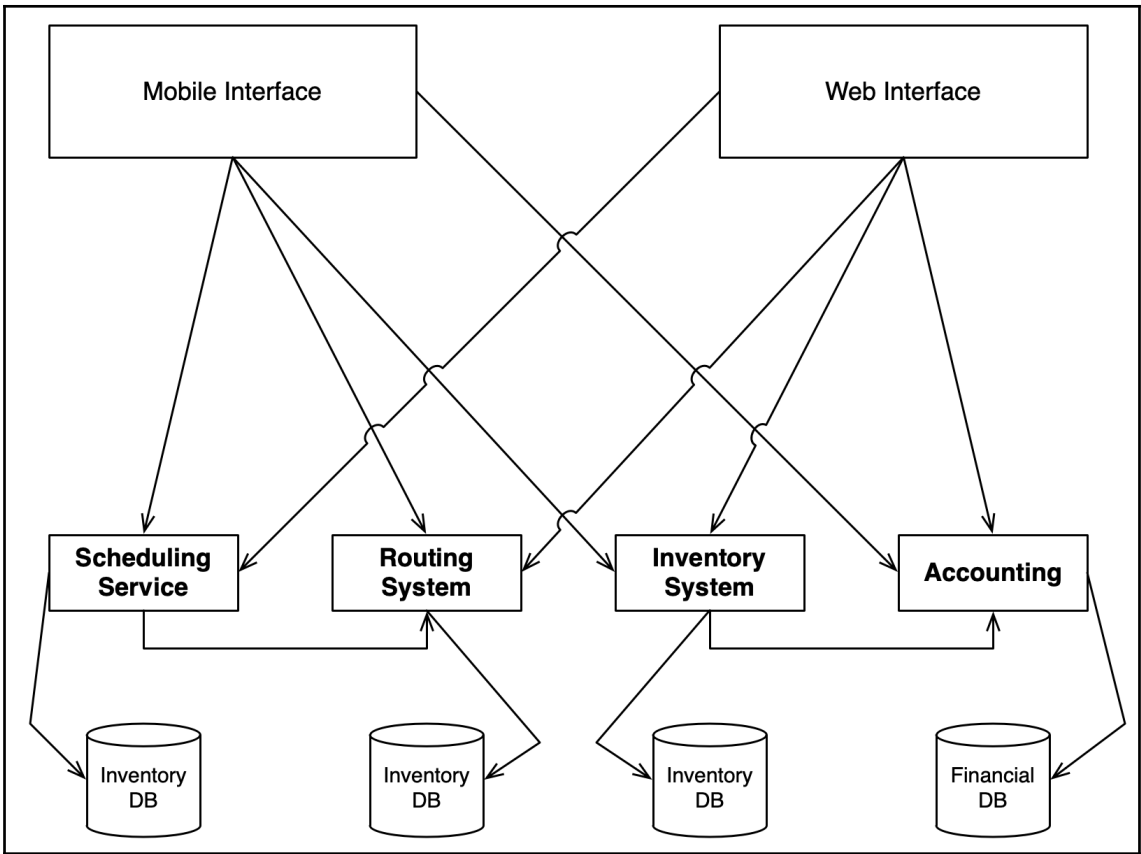


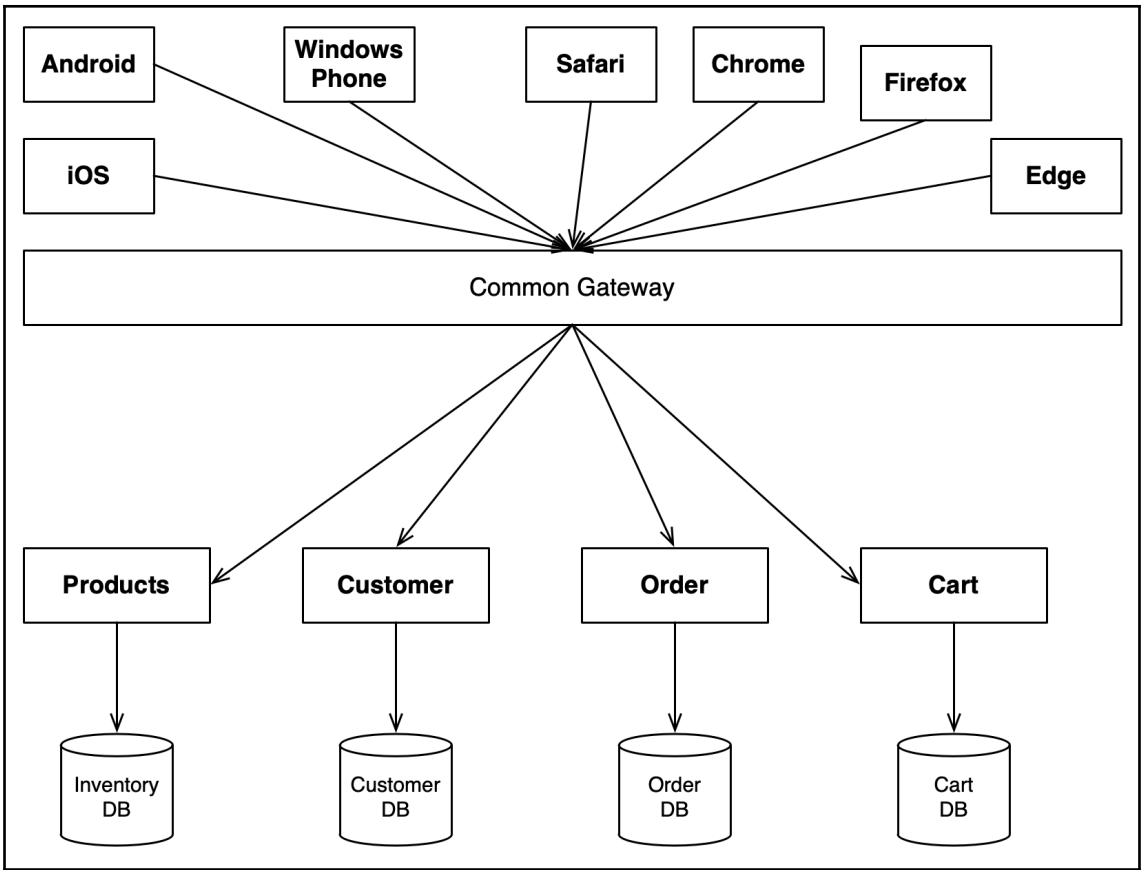


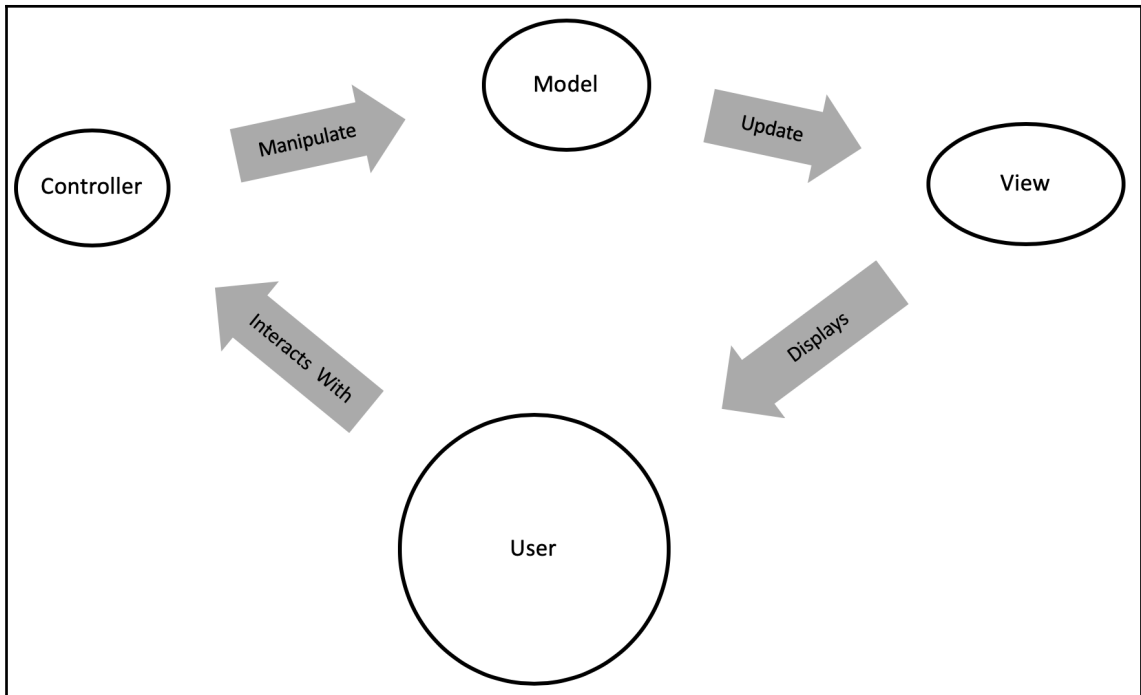


Chapter 7: Architectural Patterns - Part II



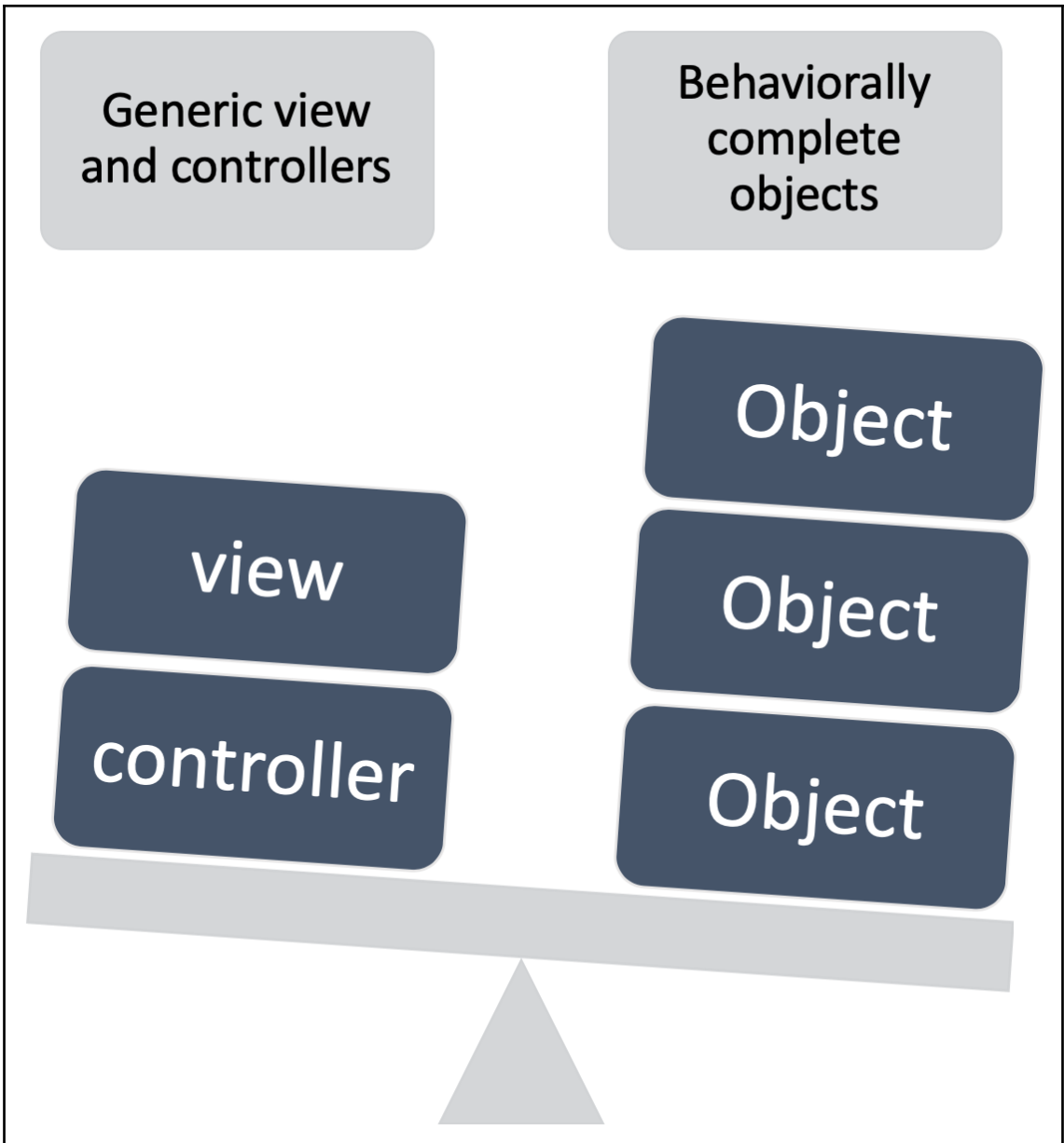


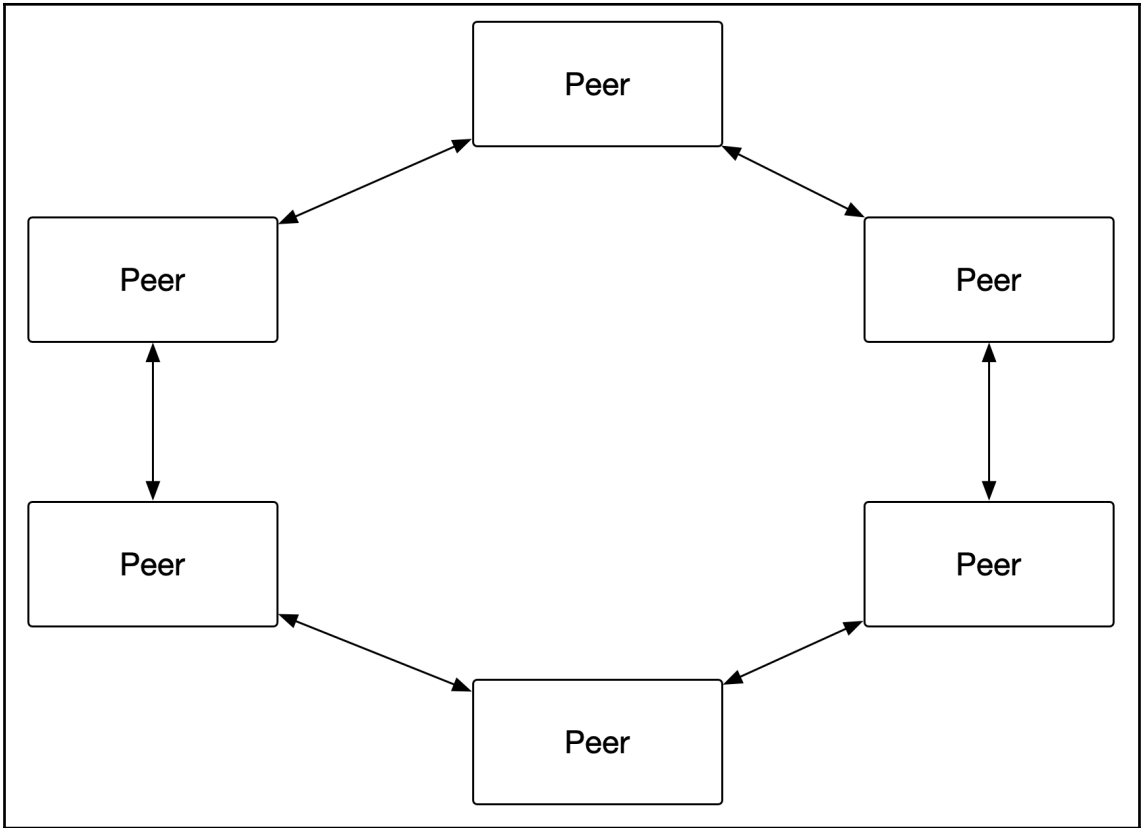


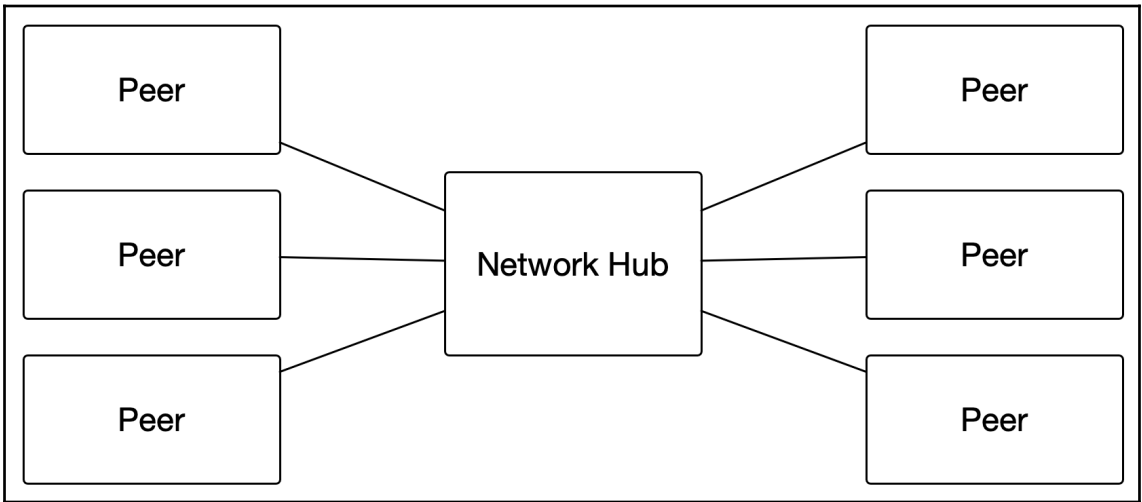
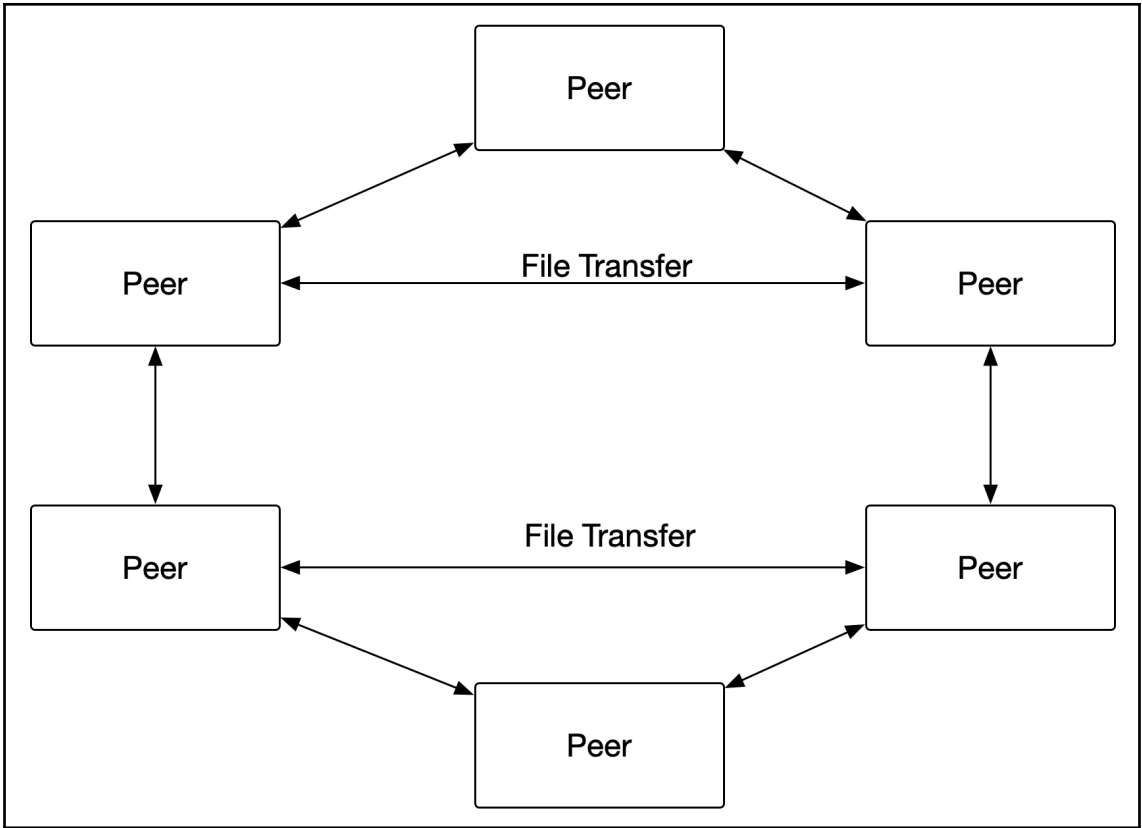


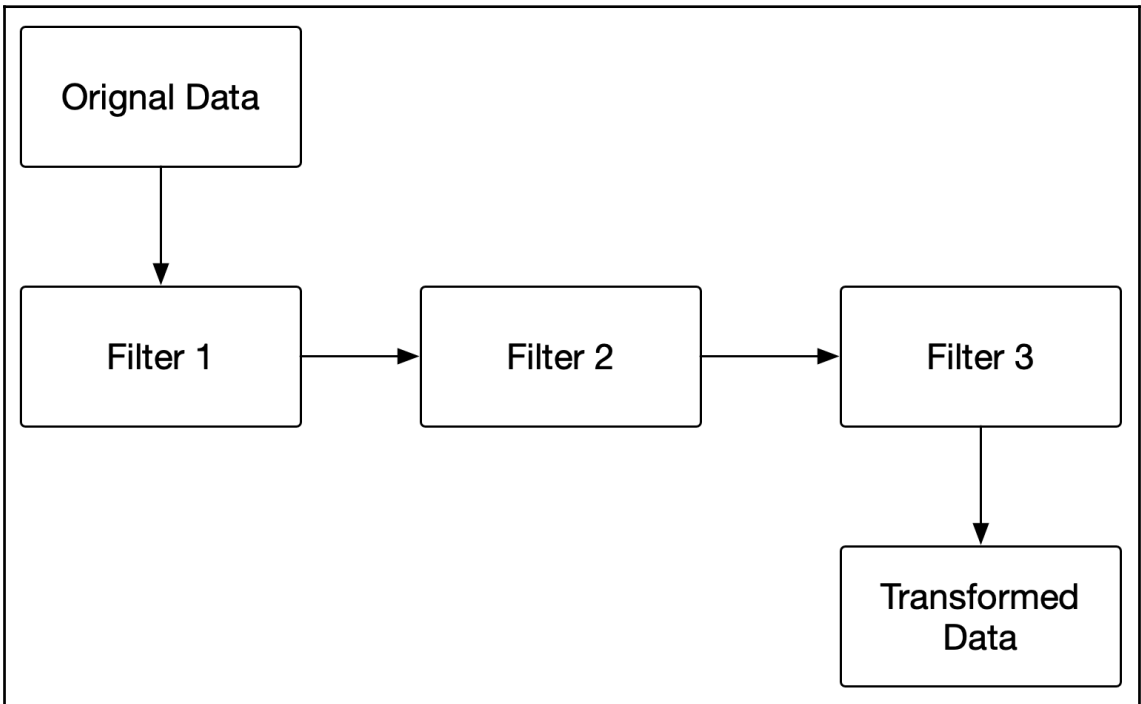
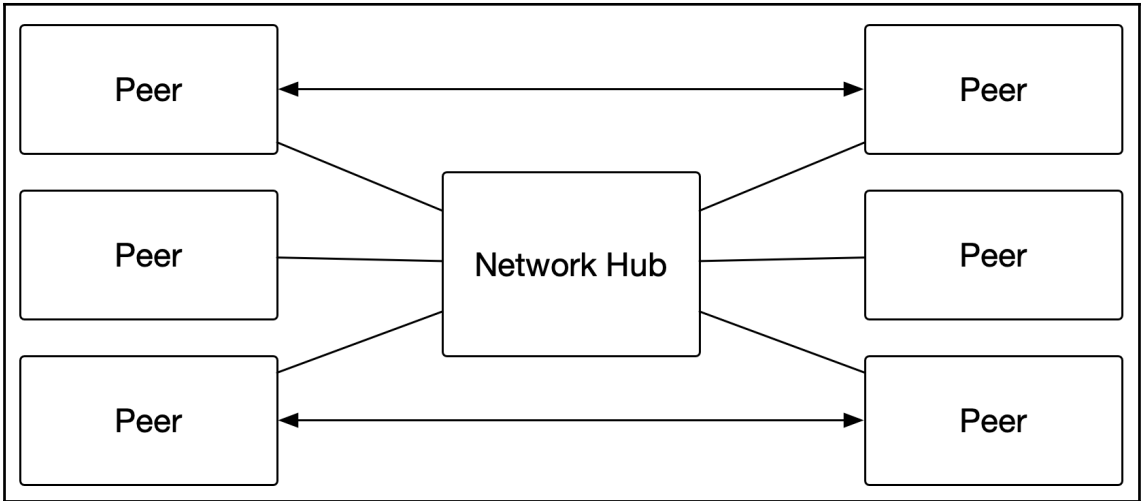
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ISBN-13    : 978-1786468734
Pub. Year  : 2017

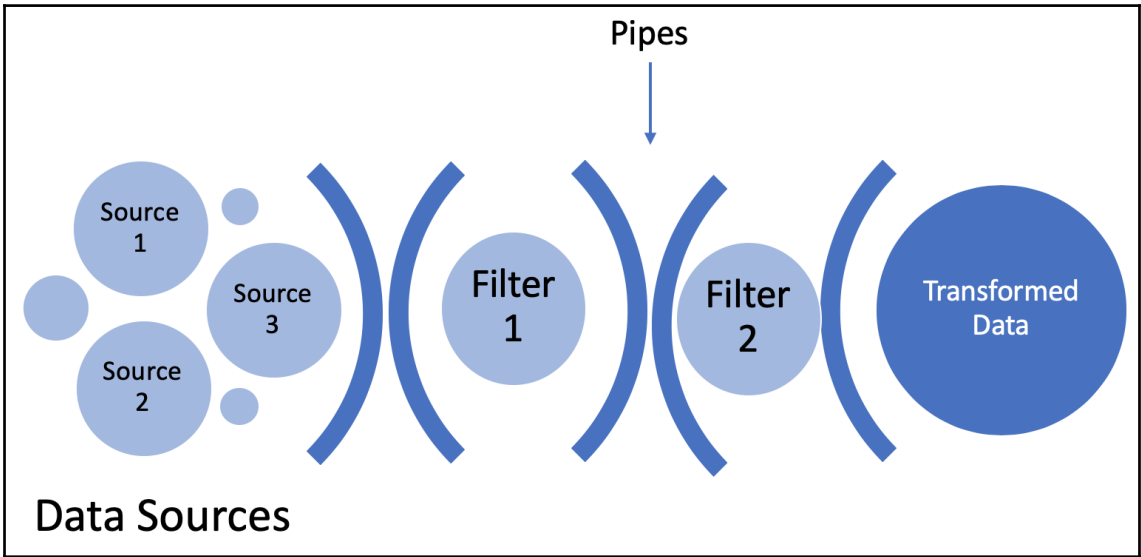
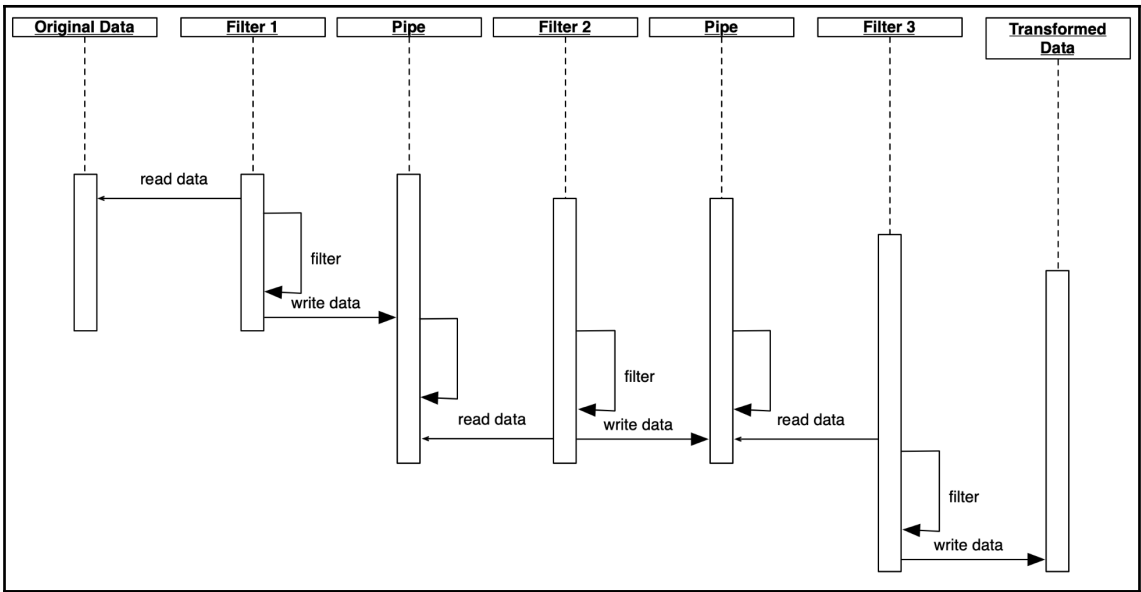
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ISBN-13    : 978-1789137613
Pub. Year  : 2018
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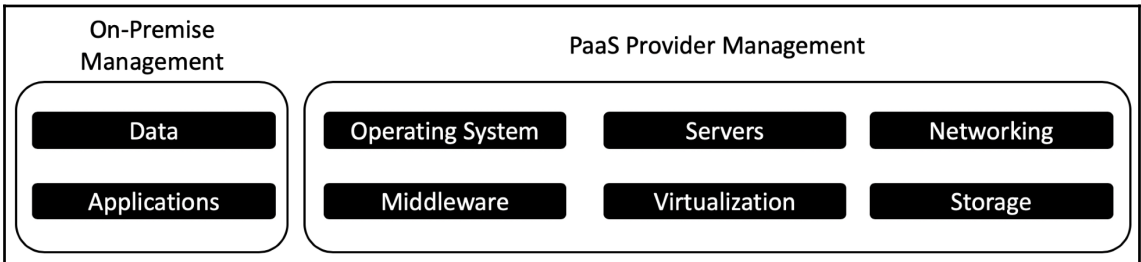
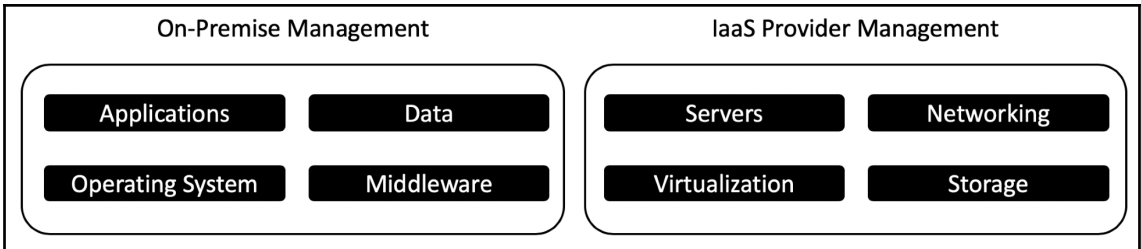
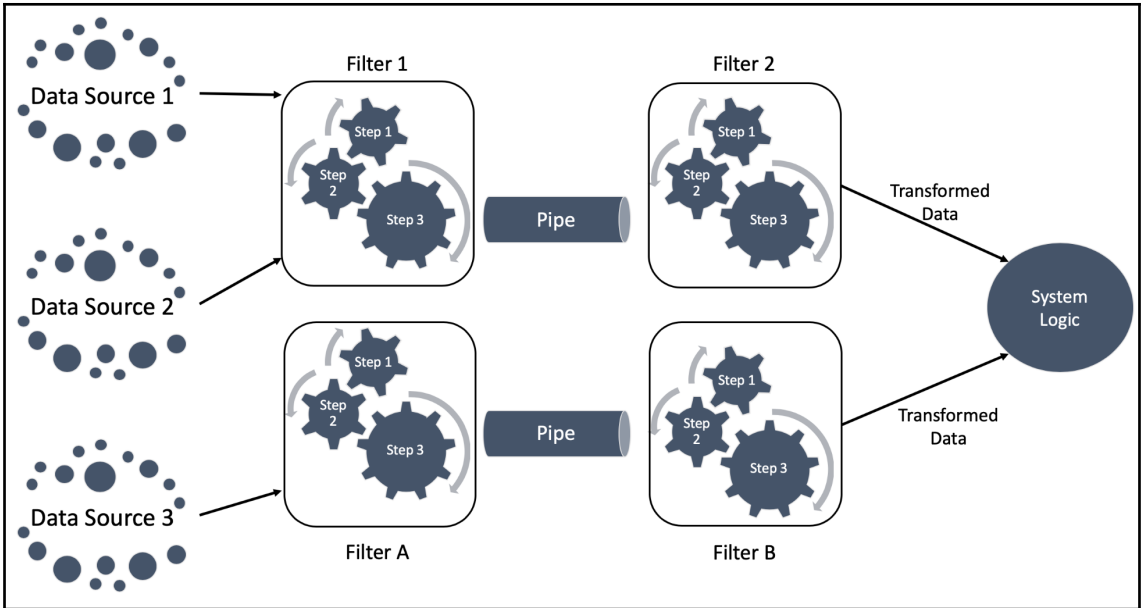


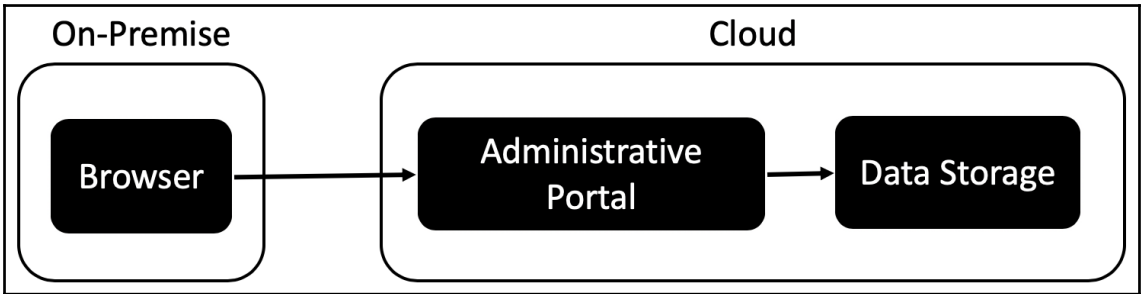
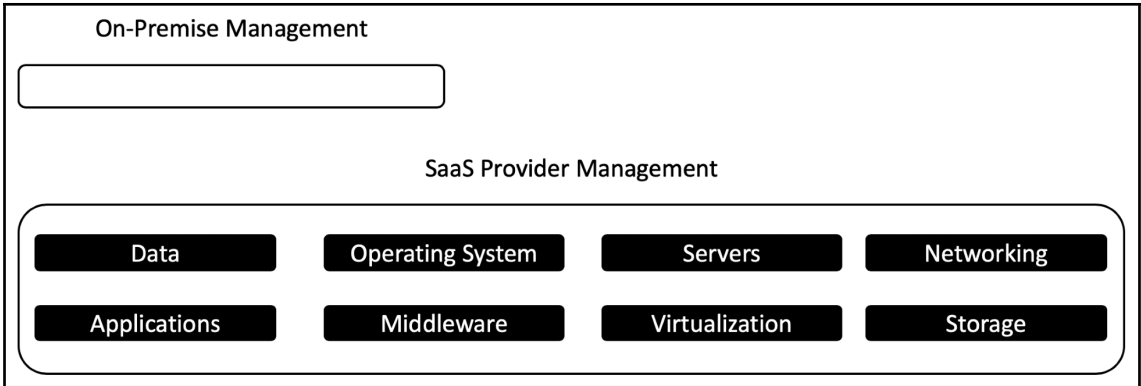


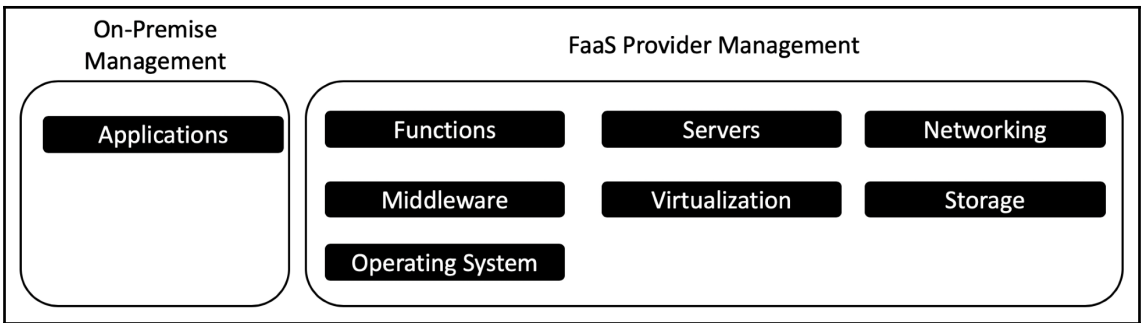
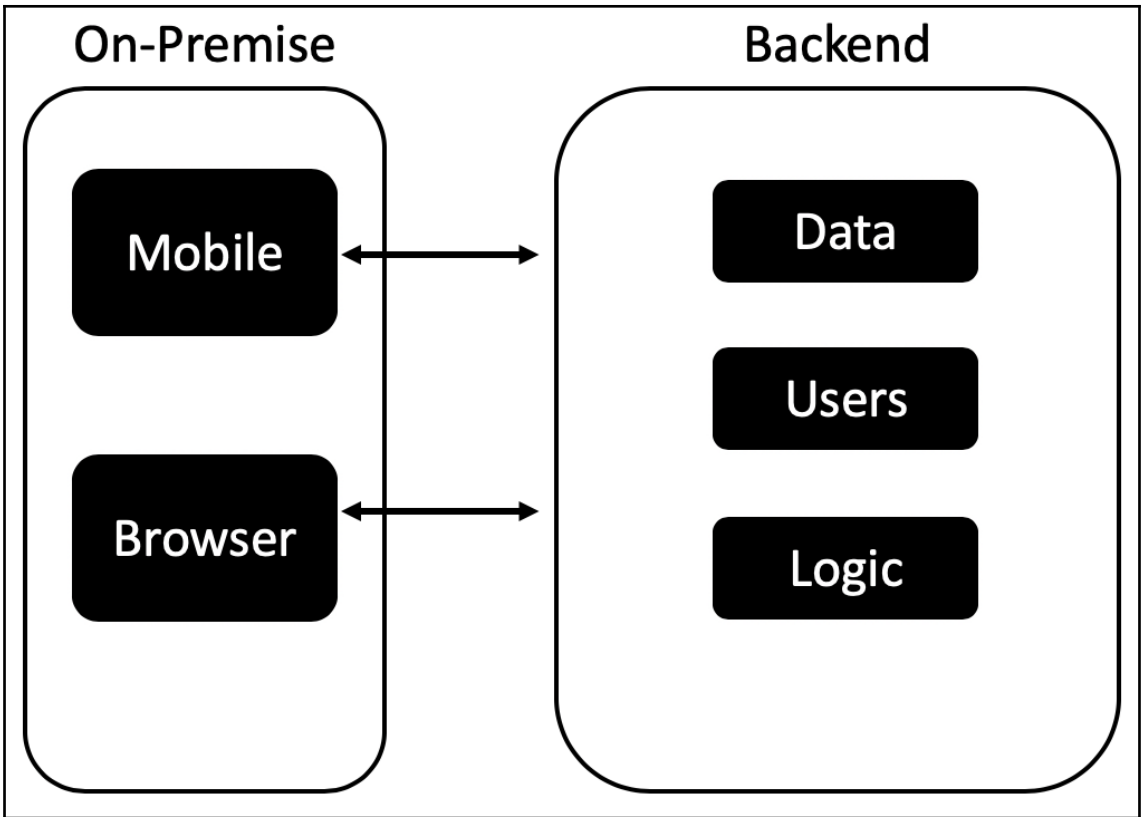


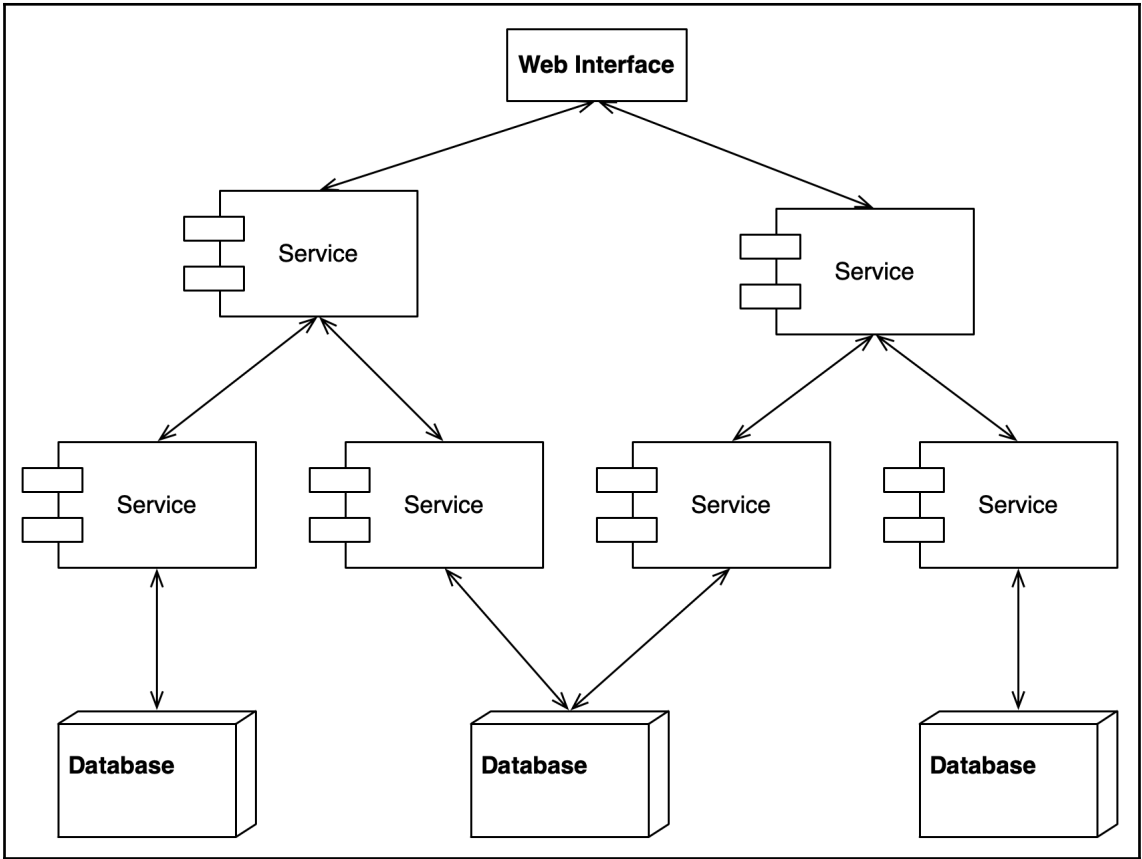


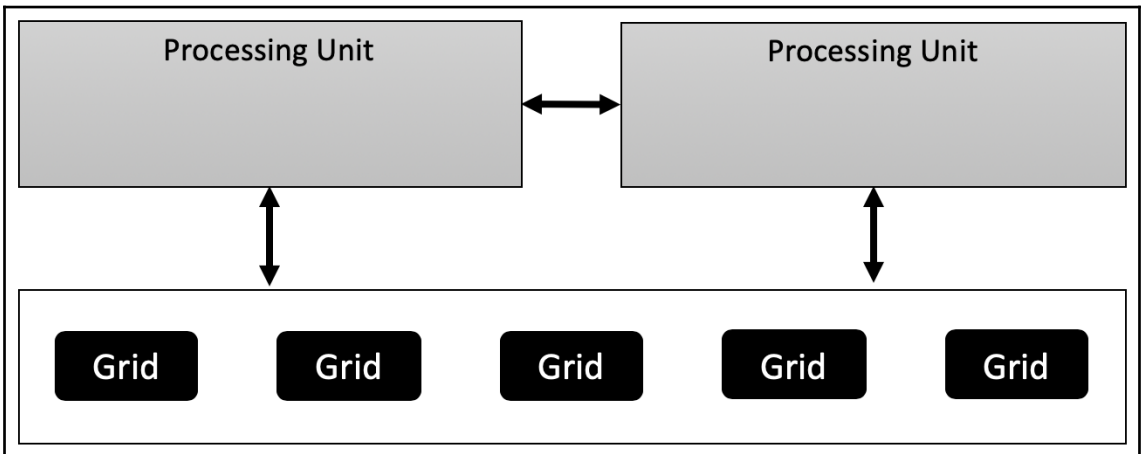
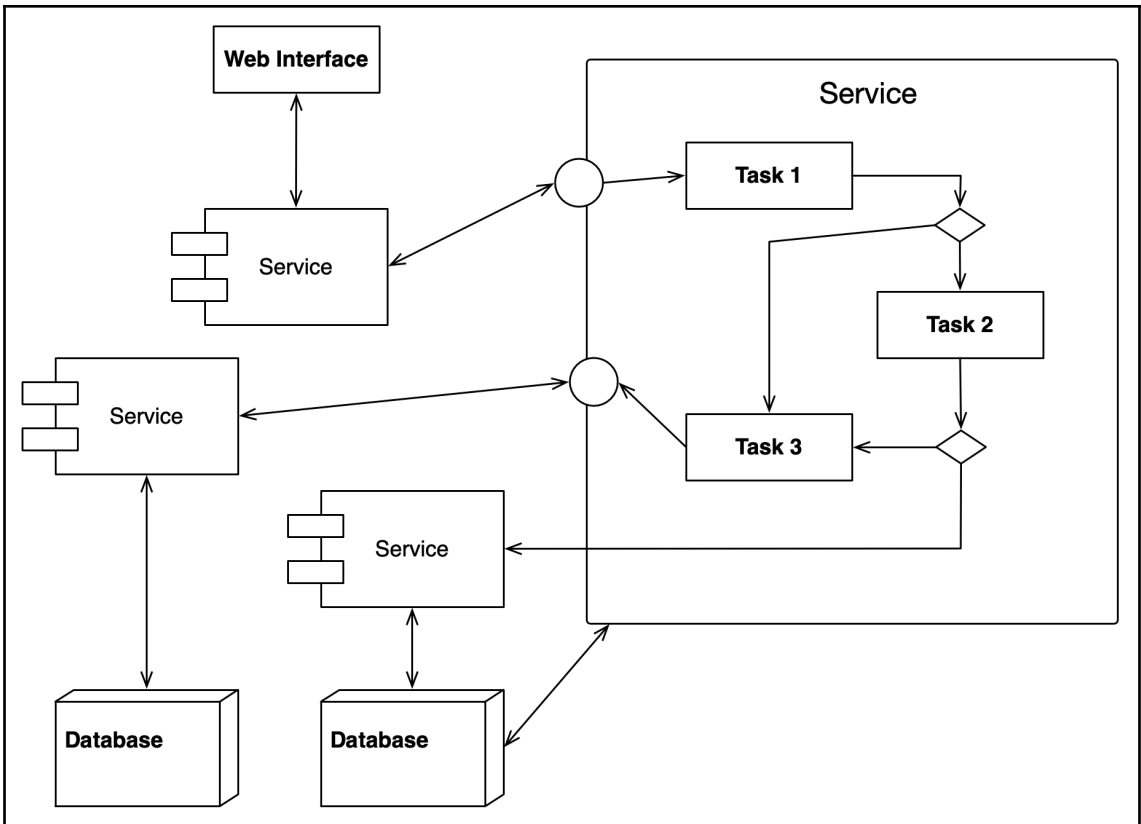












Chapter 8: Functional Design Patterns

```
1 squared is 1
2 squared is 4
3 squared is 9
4 squared is 16
5 squared is 25
```

```
How many blue tokens do you have to exchange:
```

```
4
```

```
How many red tokens do you have to exchange:
```

```
5
```

```
=====
```

```
TOKEN-TO-GIFT EXCHANGE
```

```
=====
```

```
4 blue tokens submitted
```

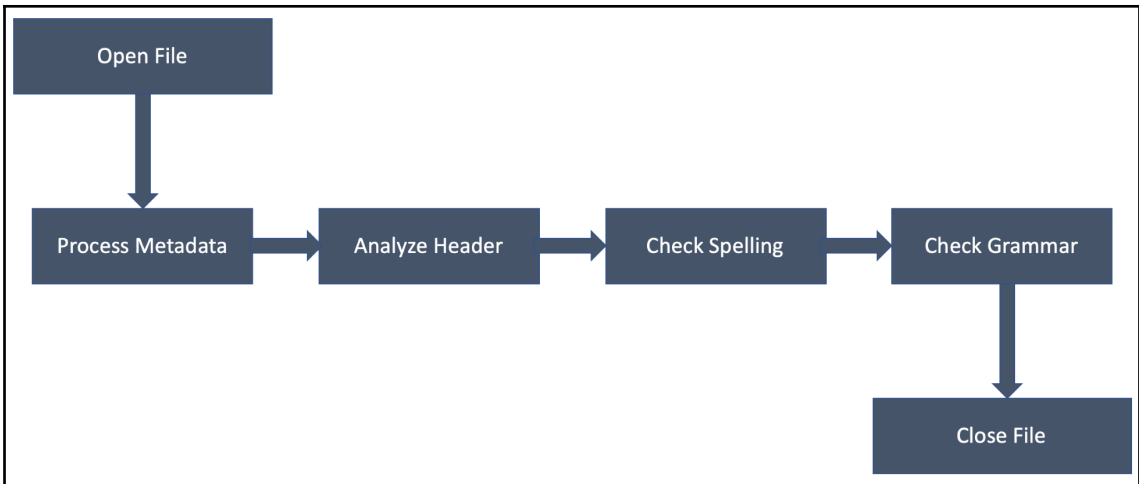
```
5 red tokens submitted
```

```
9 total tokens submitted
```

```
41 SuperSquare number result
```

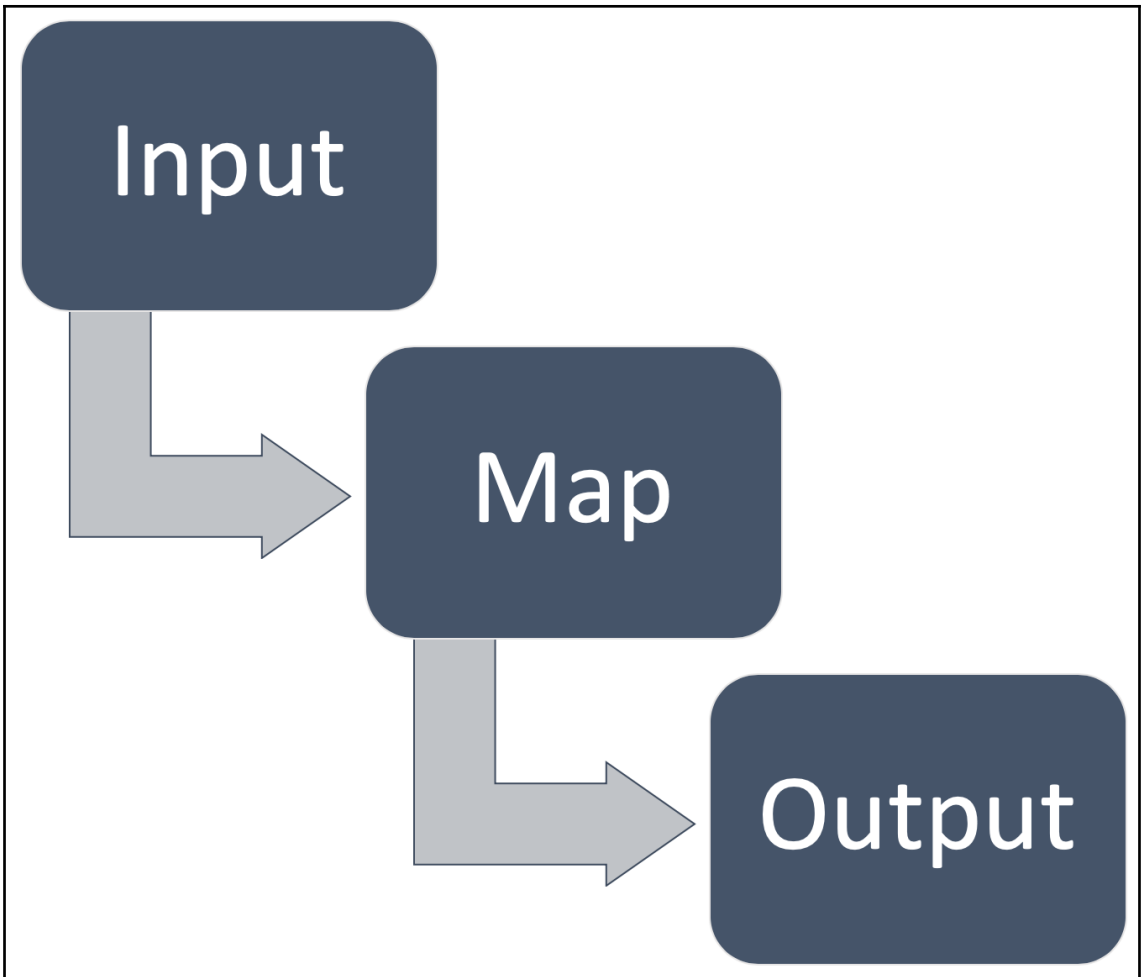
```
==
```

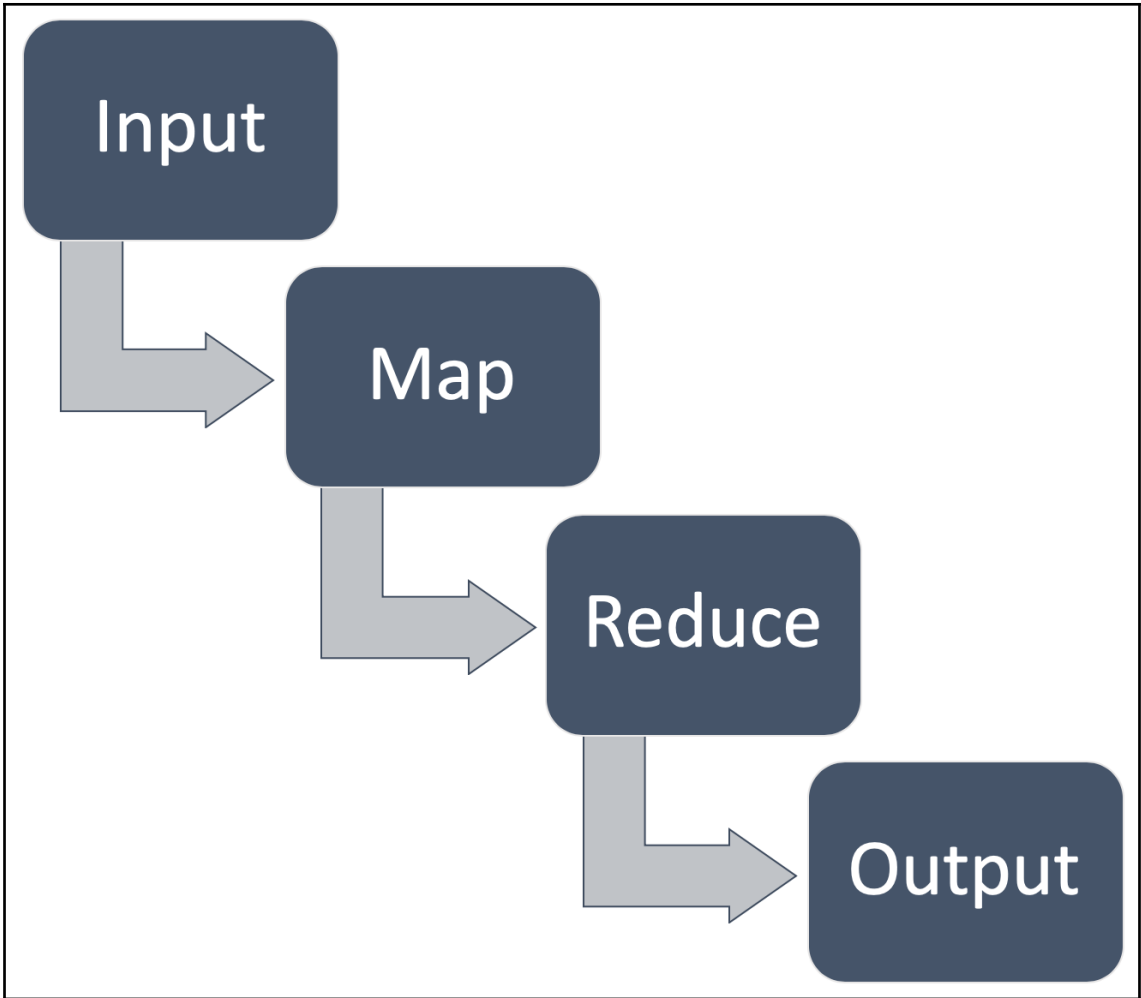
```
Your gift is a pound of Silver
```

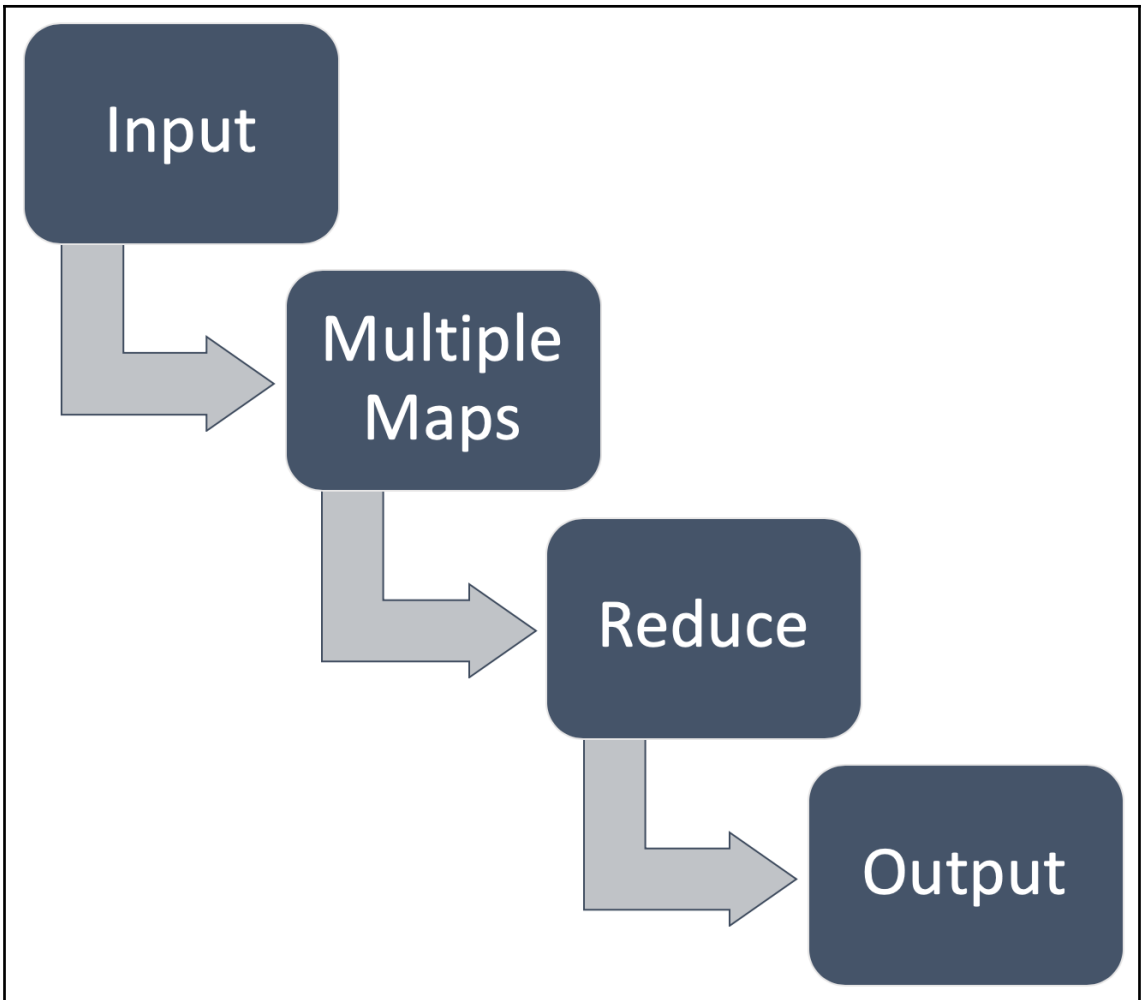


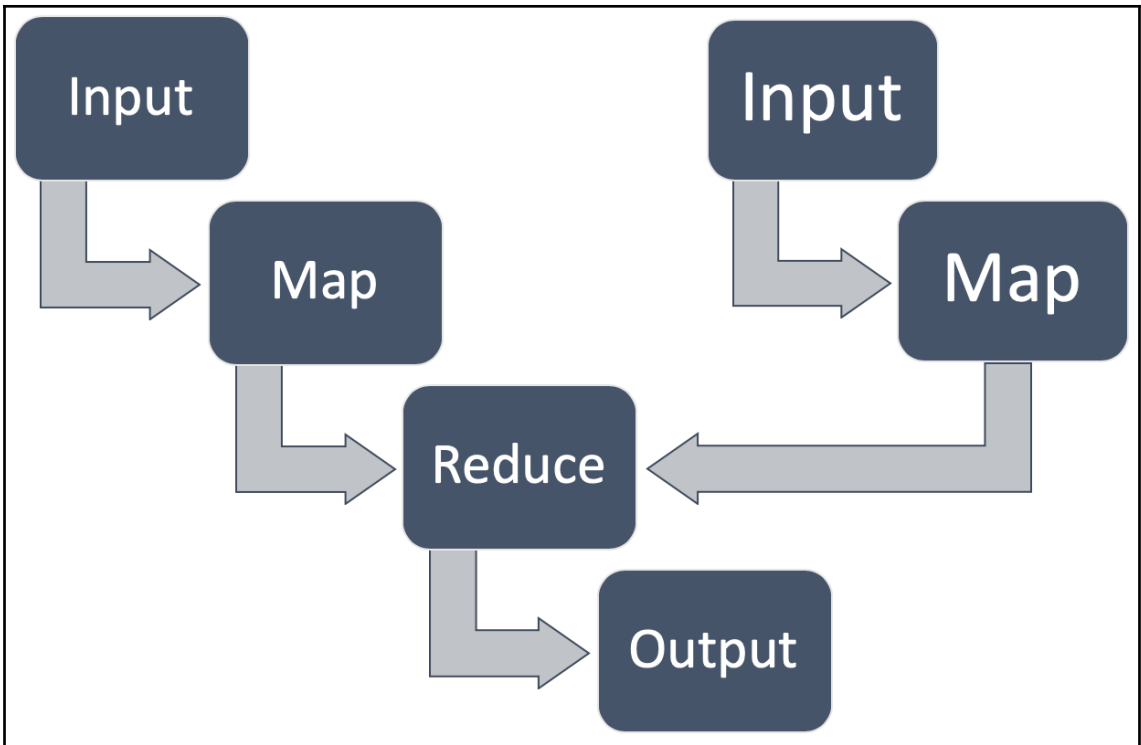
```
File opened for processing
  Processing metadata. . .
  Analyzing header. . .
  Checking spelling. . .
  Checking grammar. . .
File closed
```

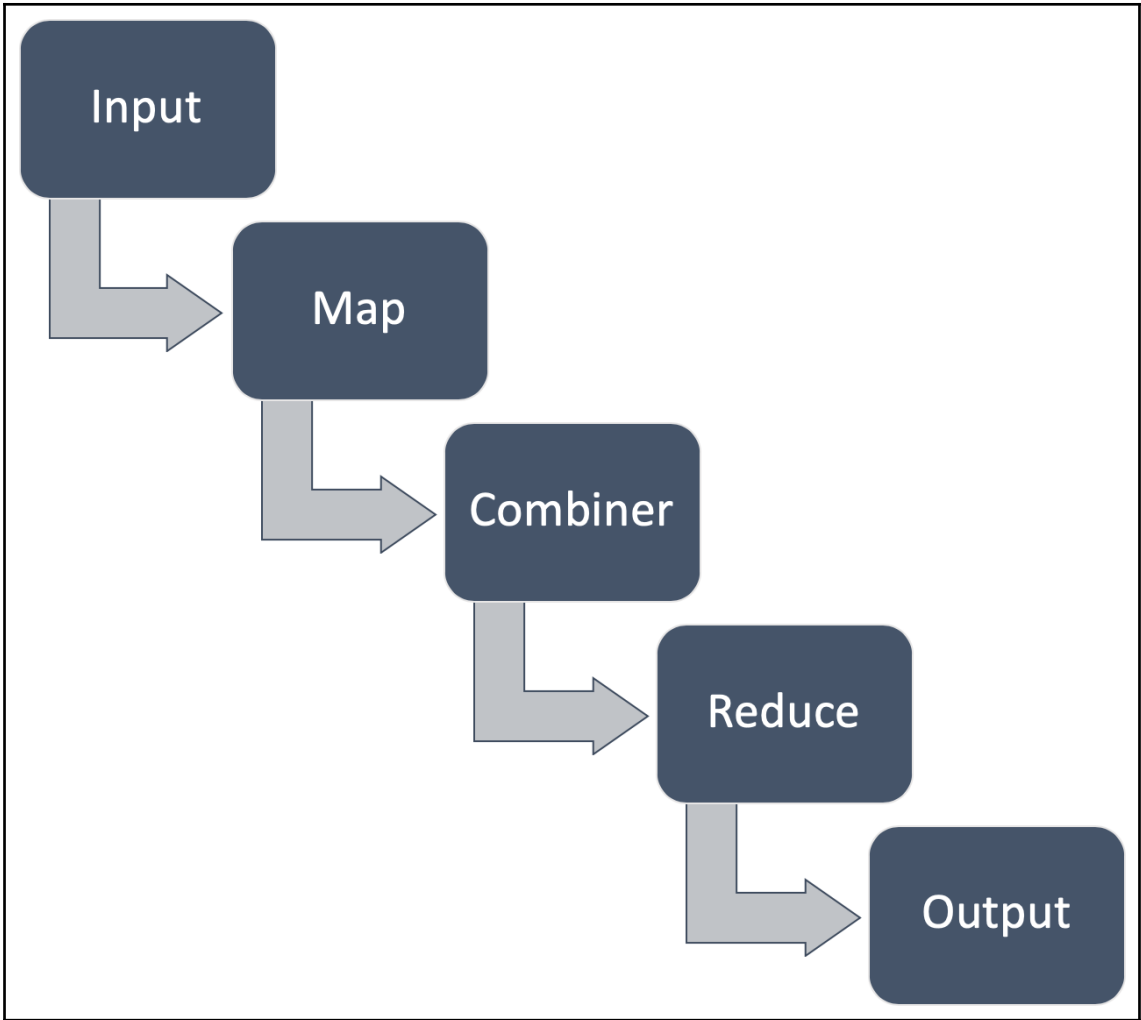
```
File opened for processing by constructor
  Processing metadata. . .
  Analyzing header. . .
  Checking spelling. . .
  Checking grammar. . .
File closed
```





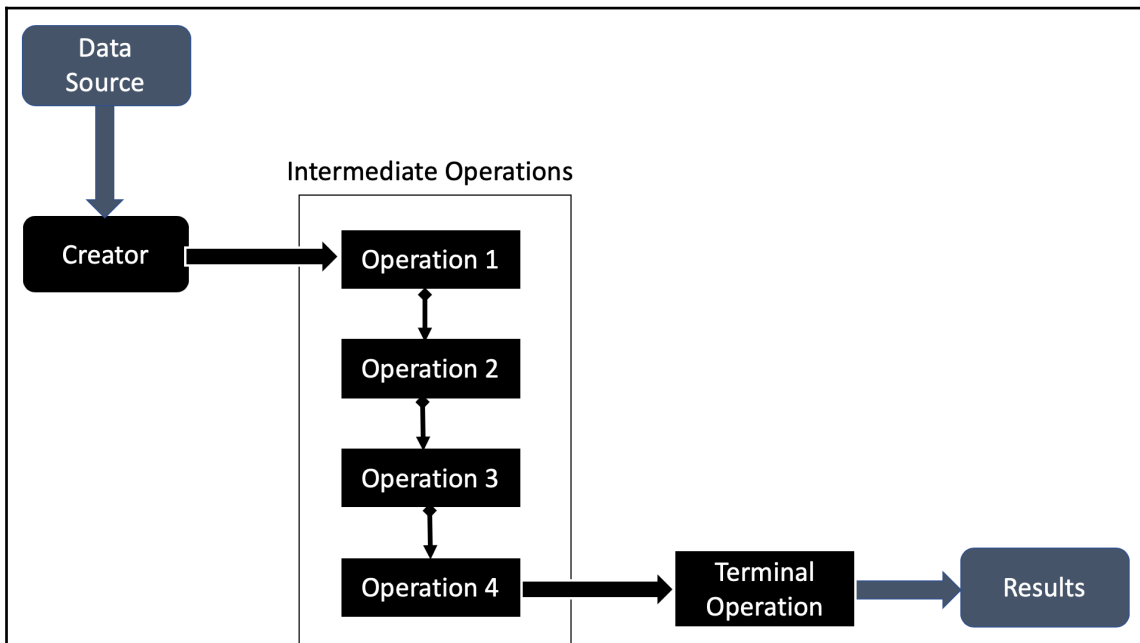






```
Computing computeFibonacciNumber(int 7)...
Computing computeFibonacciNumber(int 6)...
Computing computeFibonacciNumber(int 5)...
Computing computeFibonacciNumber(int 4)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 4)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 5)...
Computing computeFibonacciNumber(int 4)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 2)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
```

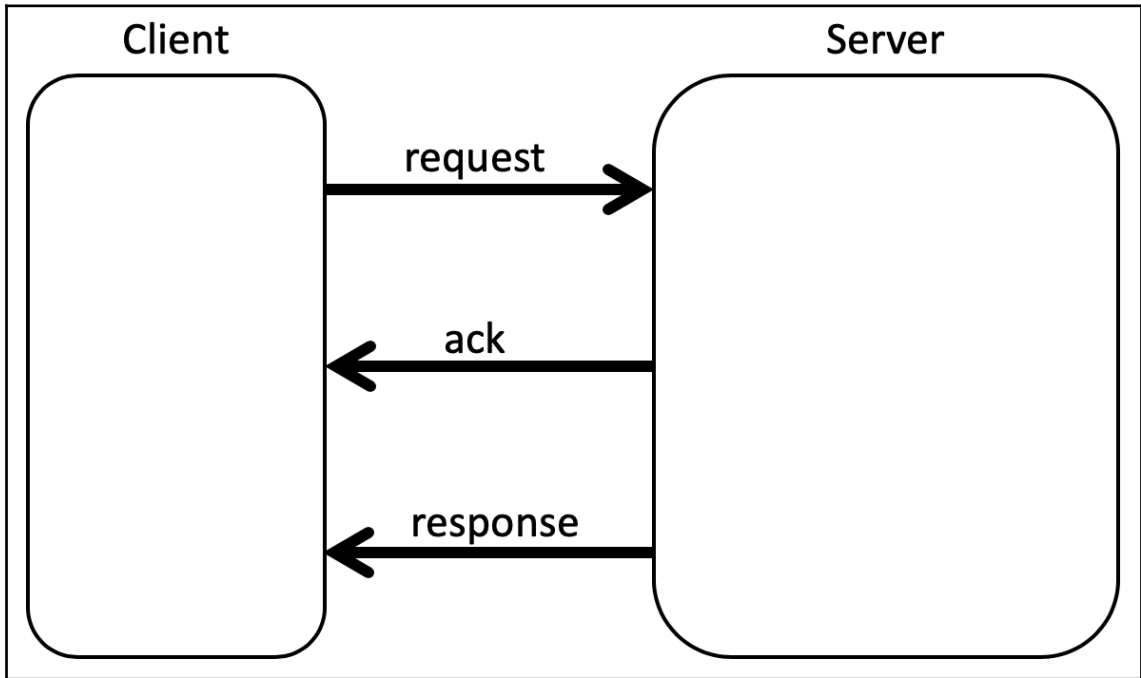
```
Computing computeFibonacciNumber(int 7)...
Computing computeFibonacciNumber(int 6)...
Computing computeFibonacciNumber(int 5)...
Computing computeFibonacciNumber(int 4)...
Computing computeFibonacciNumber(int 3)...
Computing computeFibonacciNumber(int 2)...
First time computing memoization 2
First time computing memoization 3
First time computing memoization 4
First time computing memoization 5
```

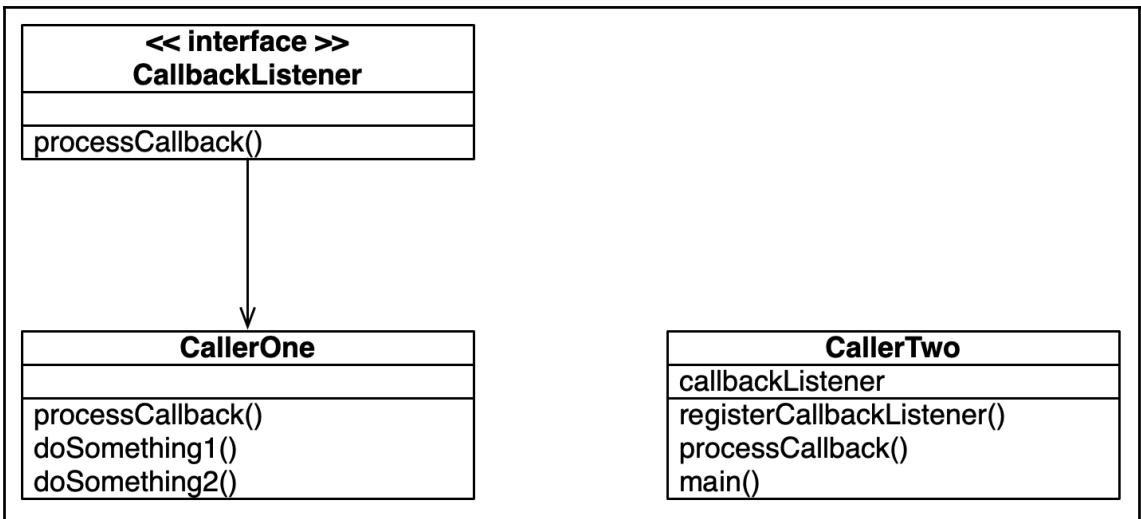
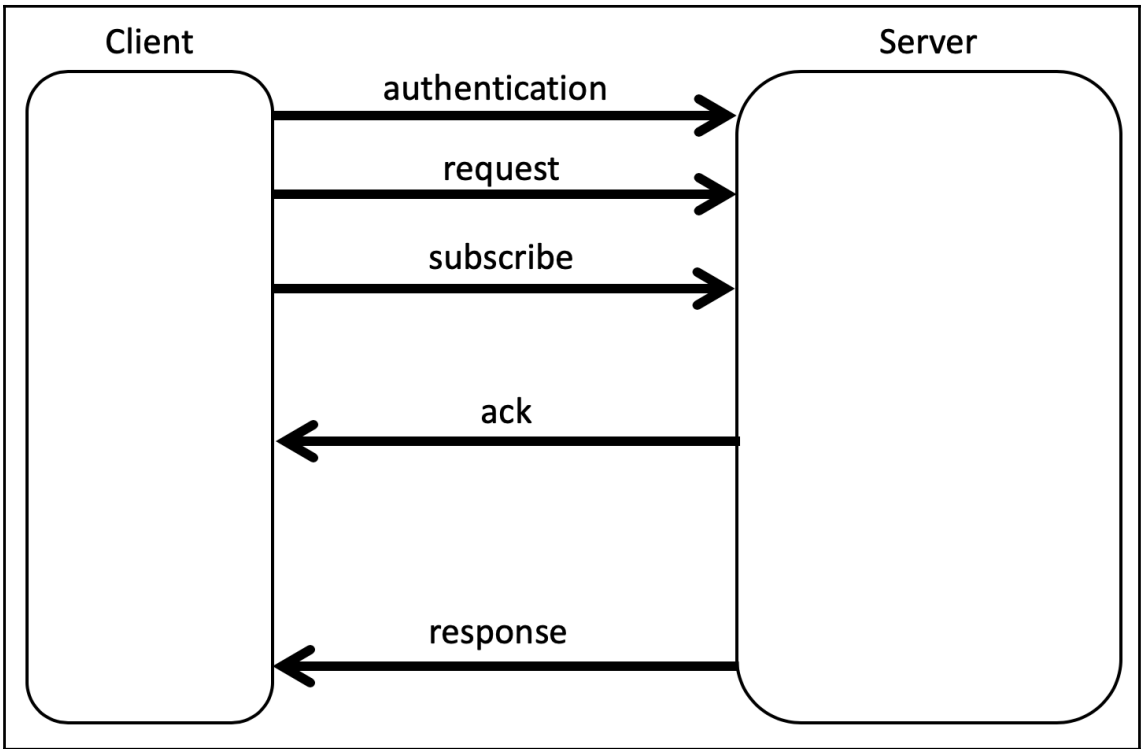


```
Peeked at: 0
Peeked at: 3
Peeked at: 6
Peeked at: 9
Peeked at: 12
Peeked at: 15
Peeked at: 18
```

```
The initial number: 4500
+ 9 = 4509
* 2 = 9018
- 4 = 9014
/ 2 = 4507
- initial number = 7
The tail call sent this as the result: 7
```

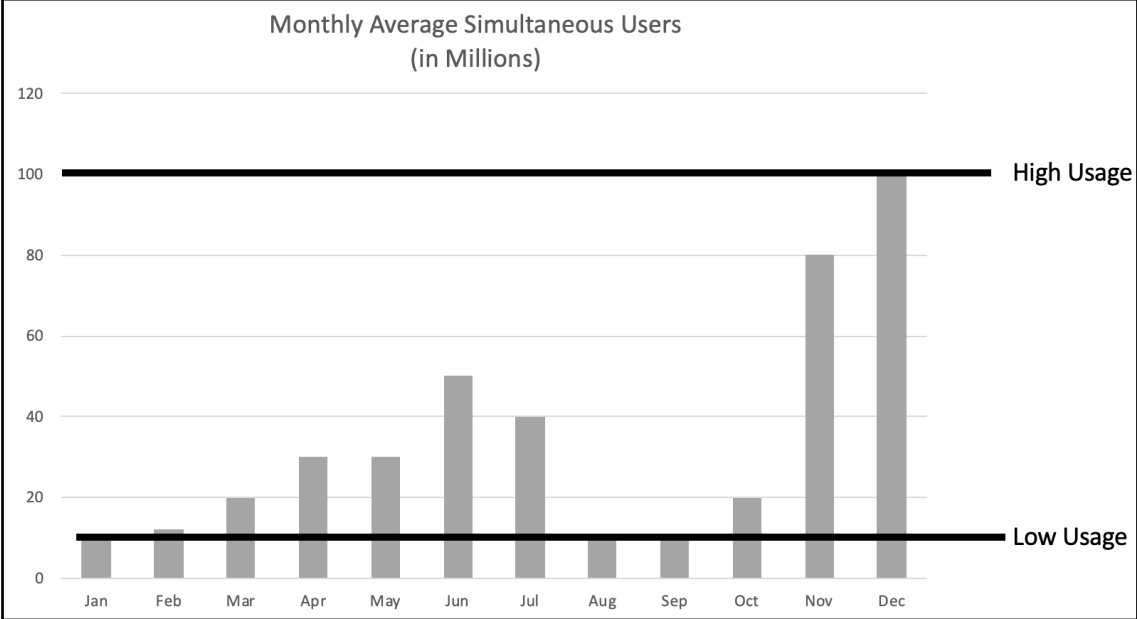
Chapter 9: Reactive Design Patterns

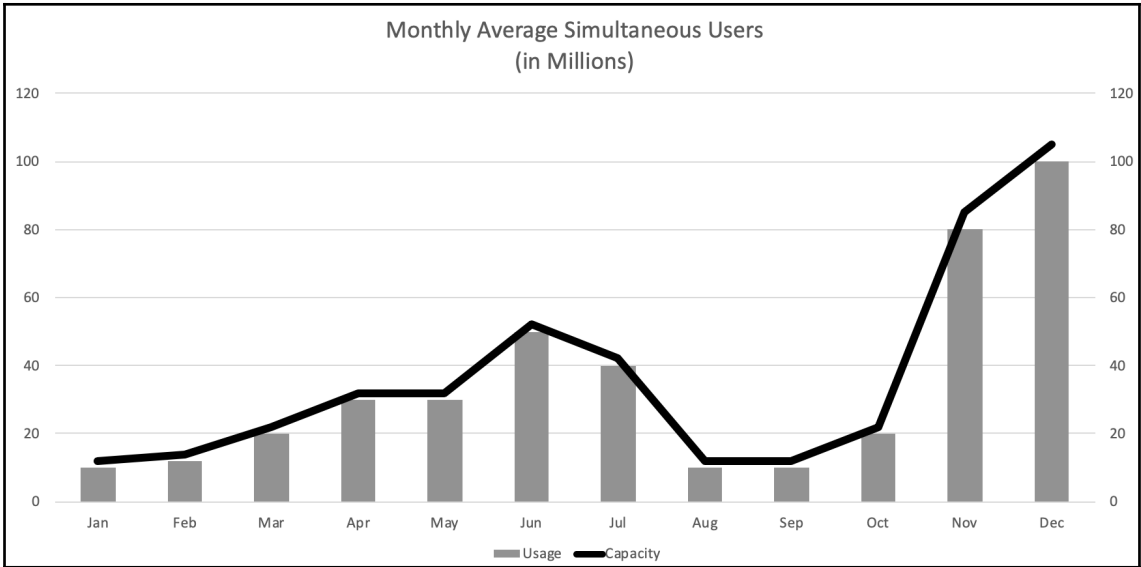




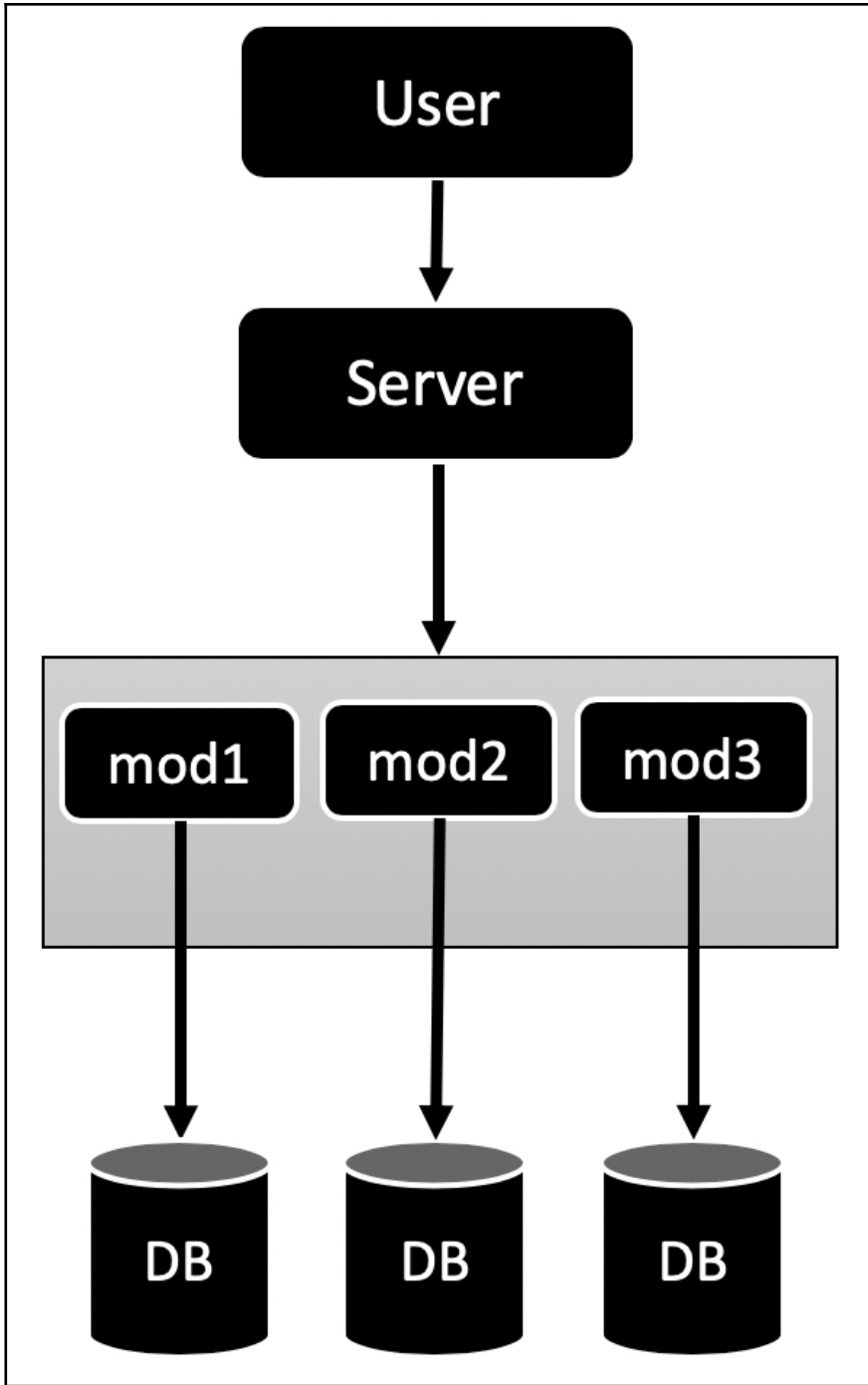
Asynchronous operations taking place . . .
 Simulated processing from Caller Two . . .

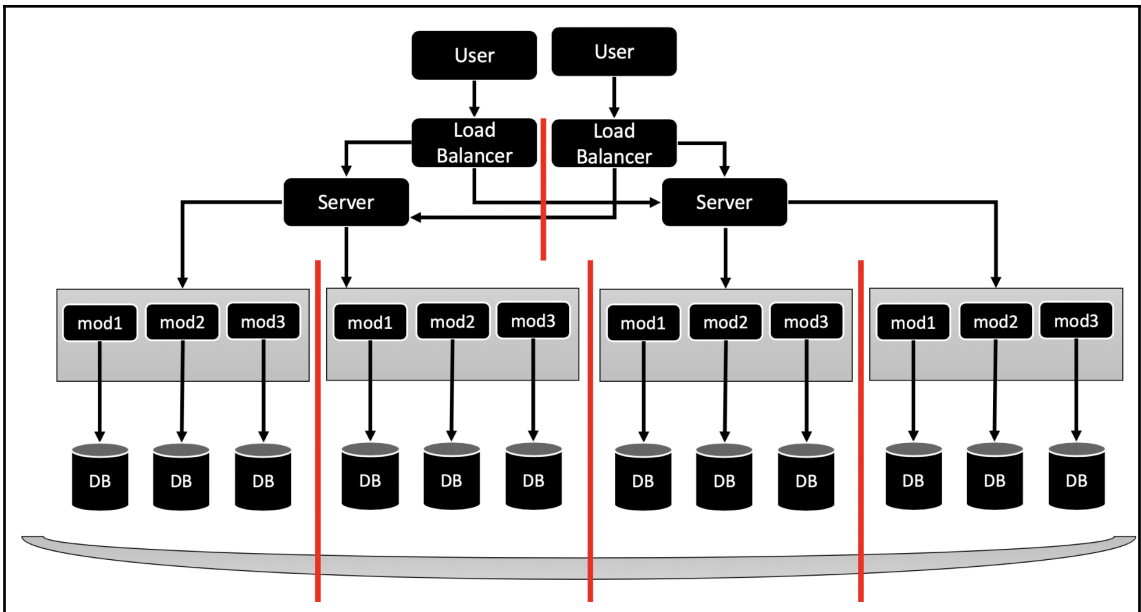
Asynchronous Task Completed Followed by Callback.
 Simulated processing from Caller One . . .
 The largest number is 34
 Simulated processing from Caller Two . . .
 Resultant Phrase: Asynchronous Communication Design Pattern

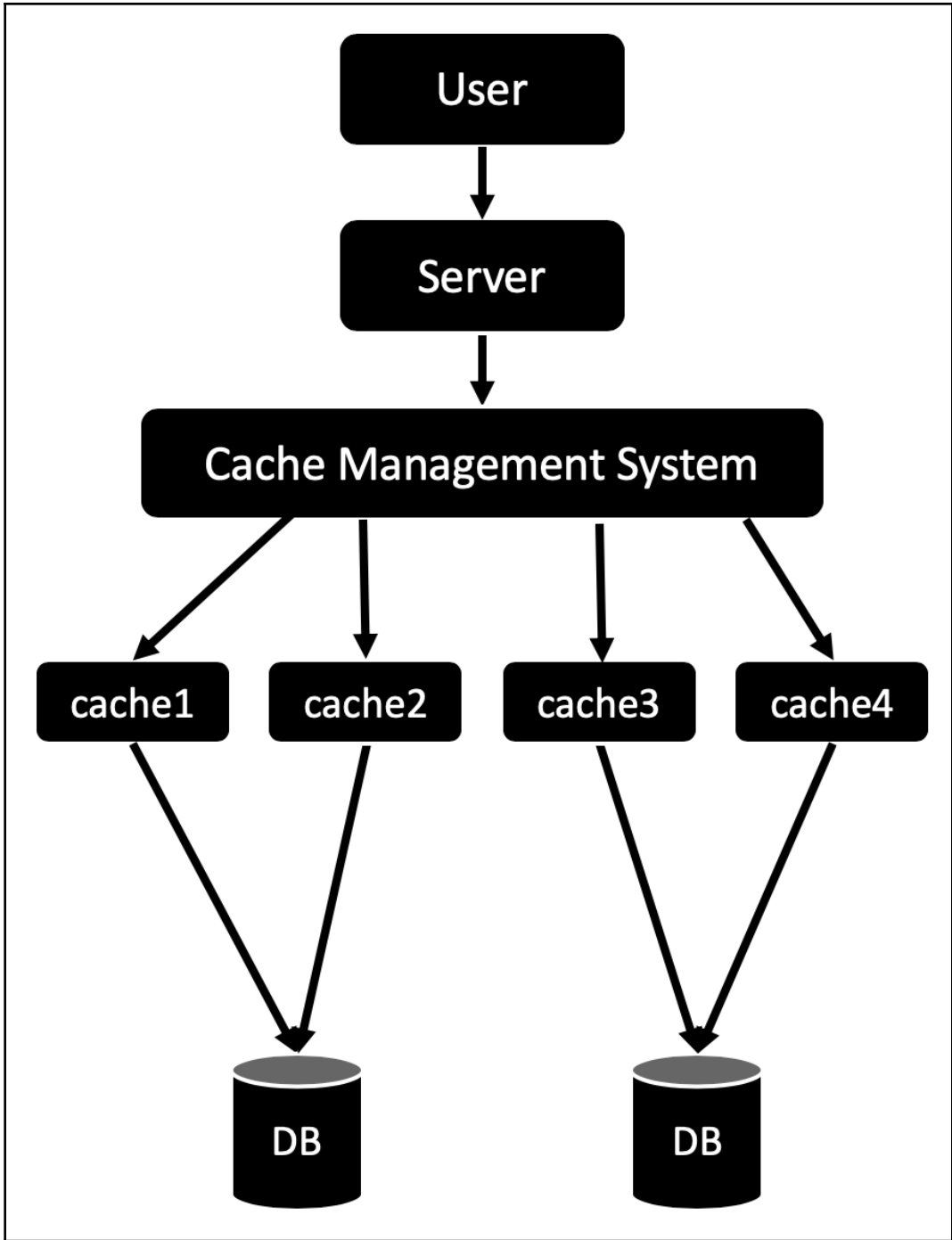




1 squared is 1
2 squared is 4
3 squared is 9
4 squared is 16
5 squared is 25
6 squared is 36
7 squared is 49
8 squared is 64
9 squared is 81
10 squared is 100







Chapter 9 Caching System.

SETTING: 8 (jersey) & 33643 (points)

SETTING: 14 (jersey) & 25192 (points)

SETTING: 22 (jersey) & 23149 (points)

SETTING: 24 (jersey) & 33643 (points)

SETTING: 32 (jersey) & 17707 (points)

SETTING: 33 (jersey) & 24176 (points)

RETRIEVED: jersey-> 8 Points-> no value

From Cache Driver: Jersey-> 8 Points-> -1

RETRIEVED: jersey -> 14 Points-> 25192

From Cache Driver: Jersey-> 14 Points-> 25192

RETRIEVED: jersey -> 22 Points-> 23149

From Cache Driver: Jersey-> 22 Points-> 23149

RETRIEVED: jersey -> 24 Points-> 33643

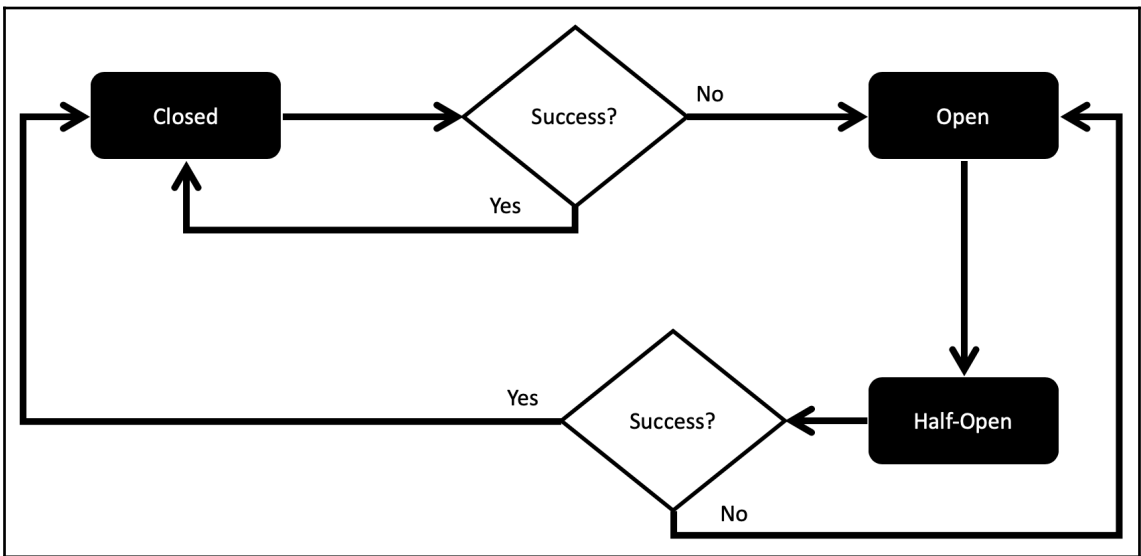
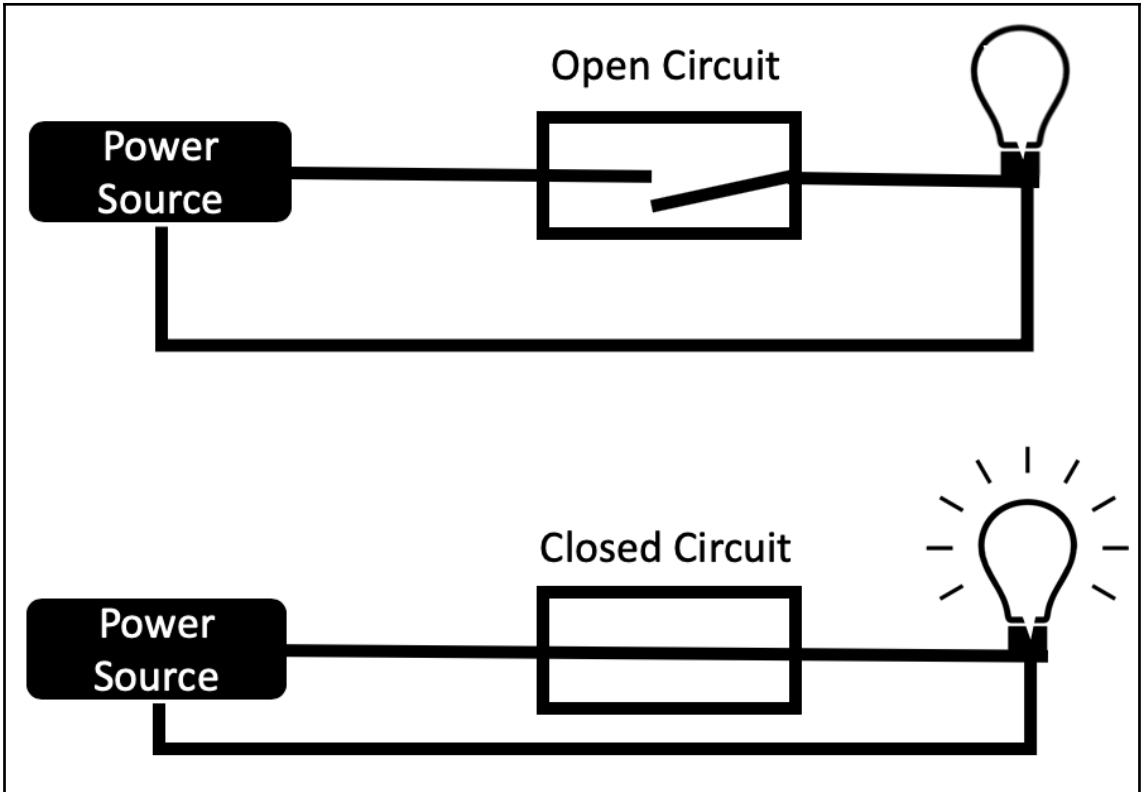
From Cache Driver: Jersey-> 24 Points-> 33643

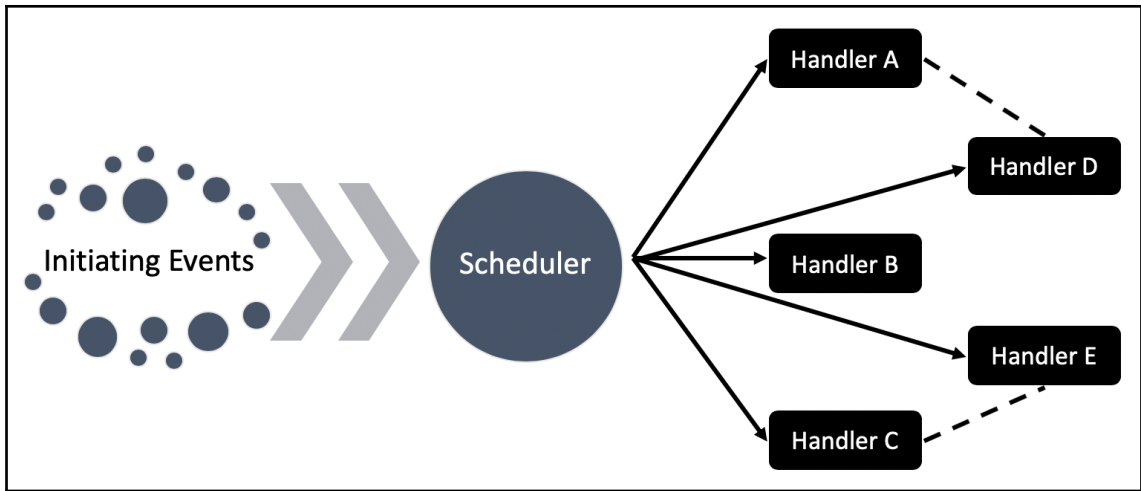
RETRIEVED: jersey -> 32 Points-> 17707

From Cache Driver: Jersey-> 32 Points-> 17707

RETRIEVED: jersey -> 33 Points-> 24176

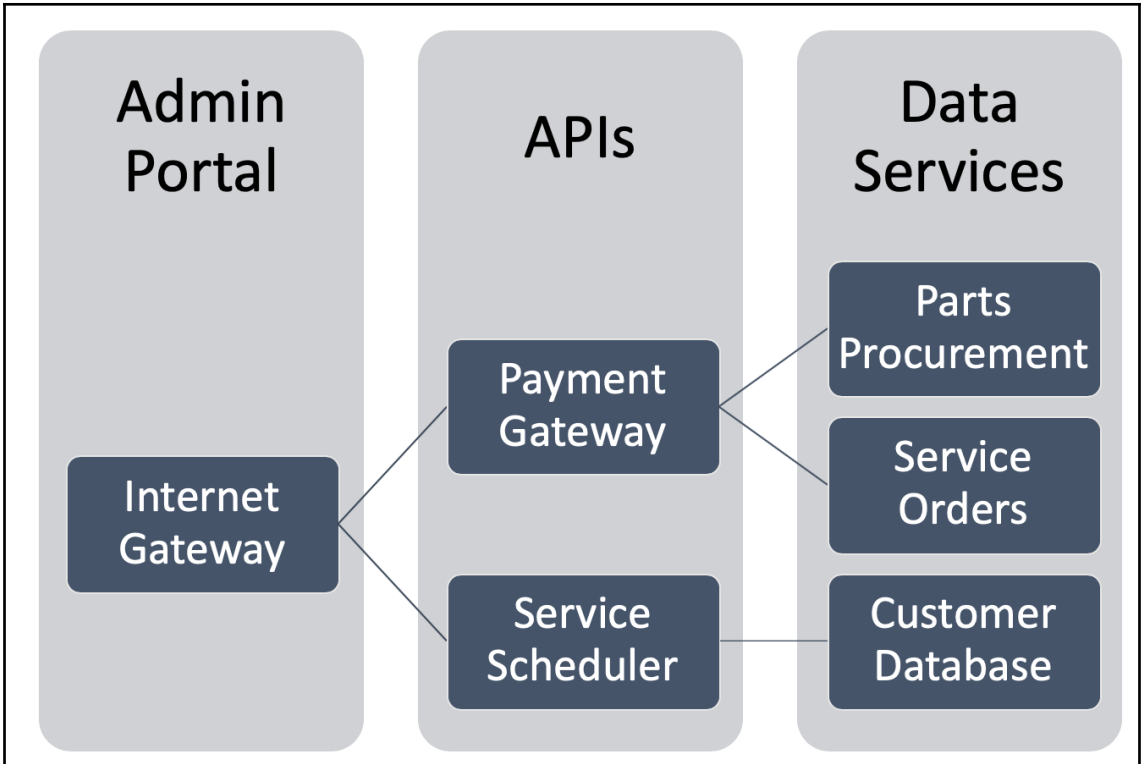
From Cache Driver: Jersey-> 33 Points-> 24176

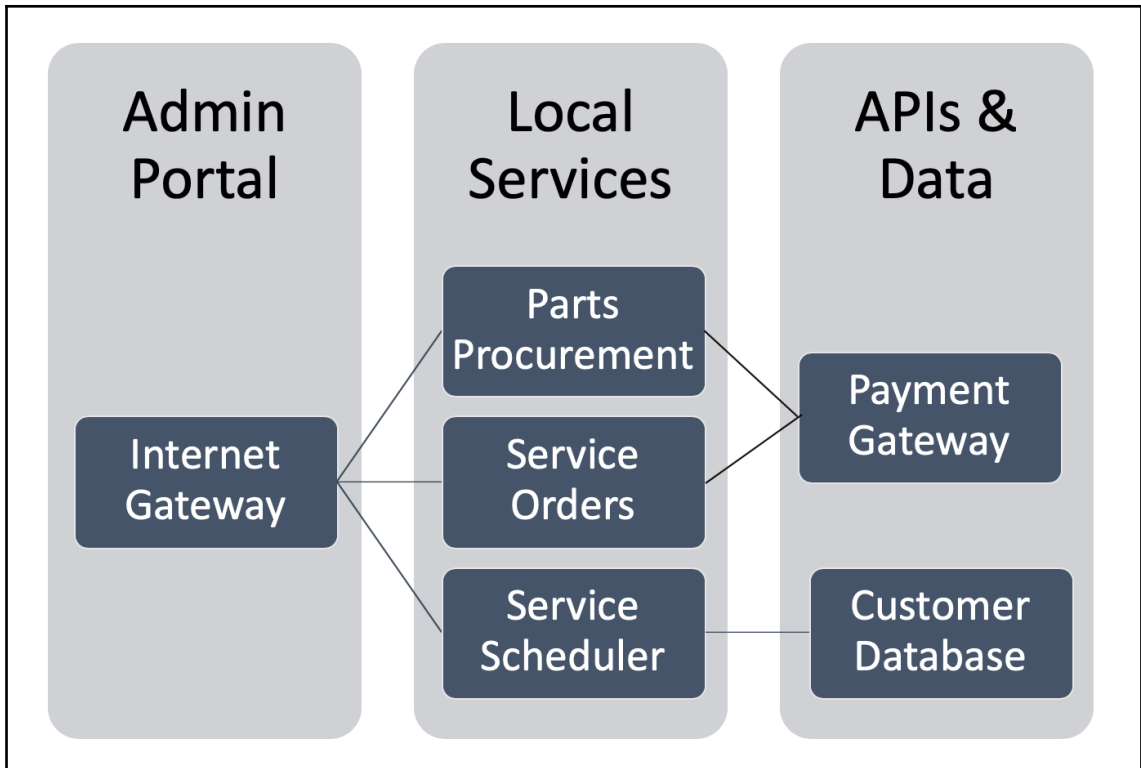




Brentwood
Trapleton
Jinsen
Corsack

Brentwood
Encountered Exception: Failing Fast!



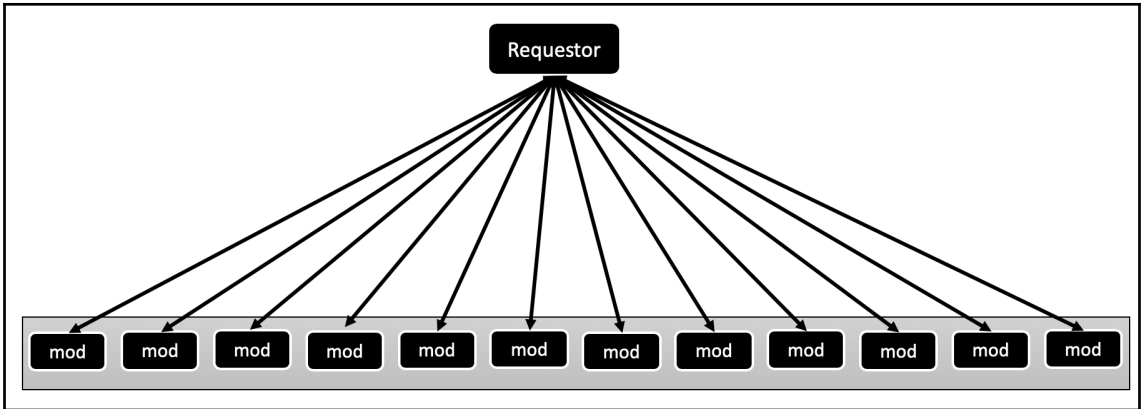


Service order processing . . .

Checking status of : Payment Gateway

Payment Gateway is offline. Your orders will be automatically processed via batch when the gateway is back online.

. . . continue processing service order.

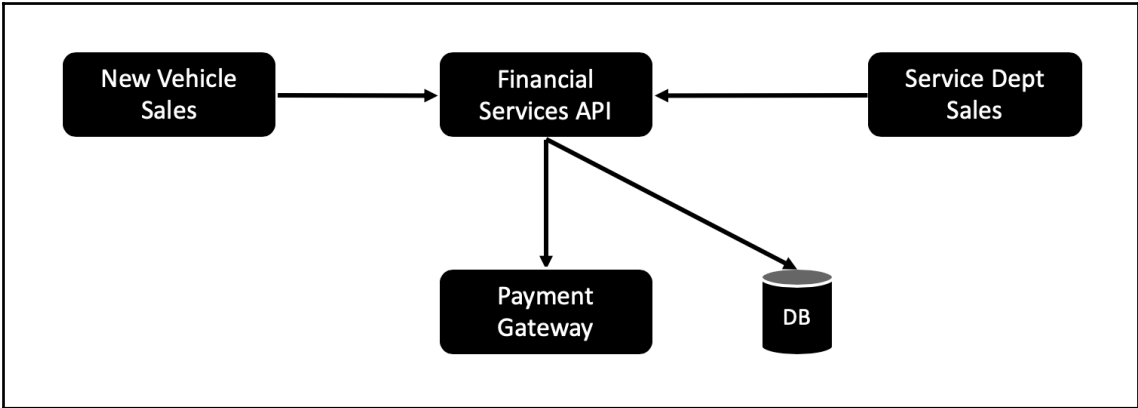
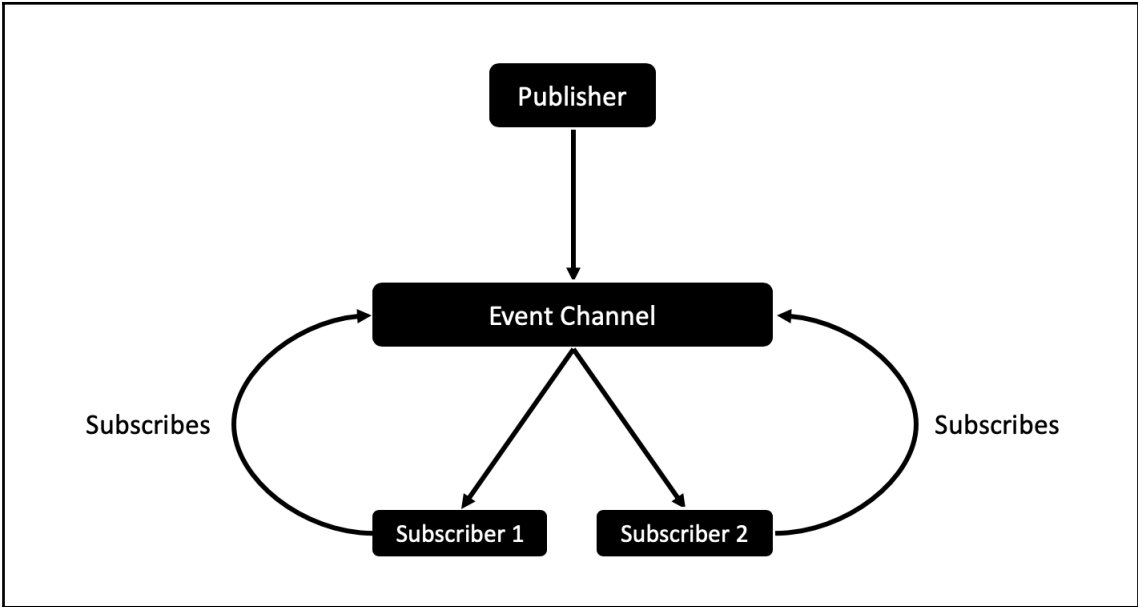


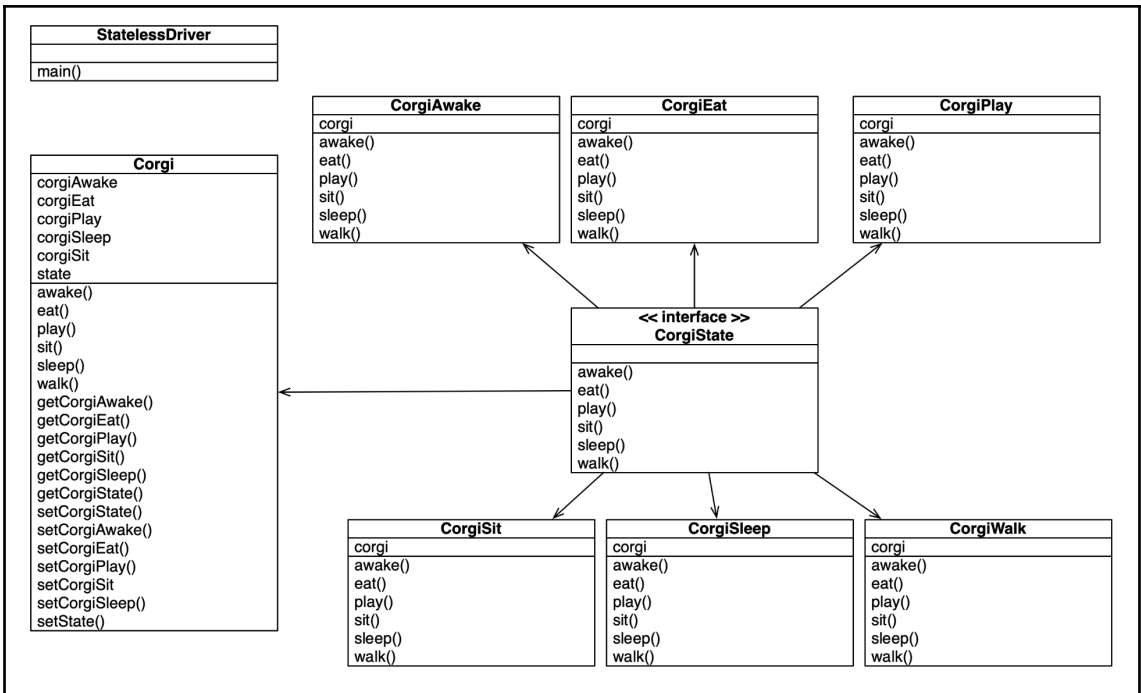
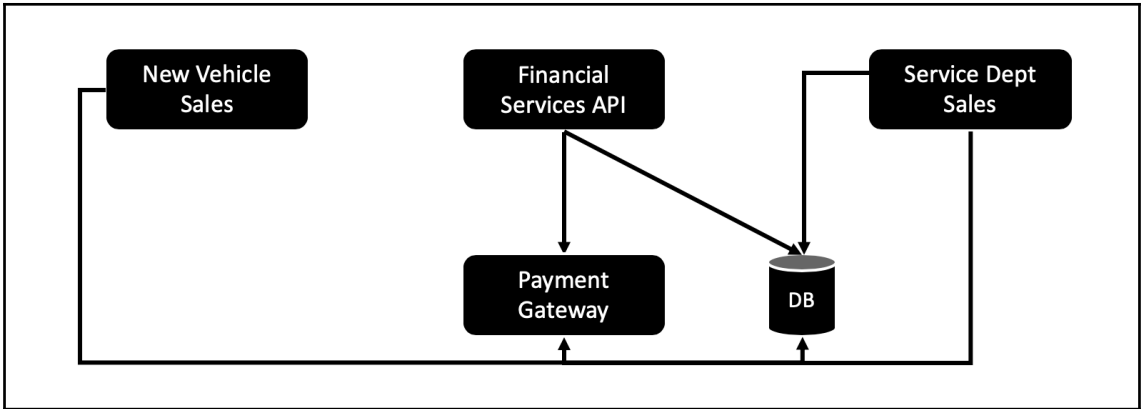
```
=====
HOSPITAL INFORMATION SYSTEM
=====

Patient XP330019 admitted.
  Length of stay : 1

Patient XP330019 received lab work.
  Idempotency Implemented: Length of Stay already computed.
  Length of stay : 1

Patient XP330019 received surgery.
  Length of stay : 2
```





= = = = =
CORGI STATELESS SYSTEM
= = = = =

The Corgi is AWAKE.
The Corgi is SITTING and waiting for action...
The Corgi is now WALKING
The Corgi is SITTING and waiting for action...
The Corgi is now PLAYING.
The Corgi is SITTING and waiting for action...
The Corgi is now EATING.
The Corgi is SITTING and waiting for action...
The Corgi is now WALKING
Shhh; the Corgi is sleeping.
The Corgi is now SLEEPING.
The Corgi cannot PLAY when it is SLEEPING.
Shhh; the Corgi is sleeping.
The Corgi is now SLEEPING.
The Corgi cannot EAT when it is SLEEPING.