

DAY - 4

UML Diagrams :

Structural

[Static]

(7)

class Diagram

Behavioural

[Dynamic]

(7)

Sequence Diagram

Class Diagram :

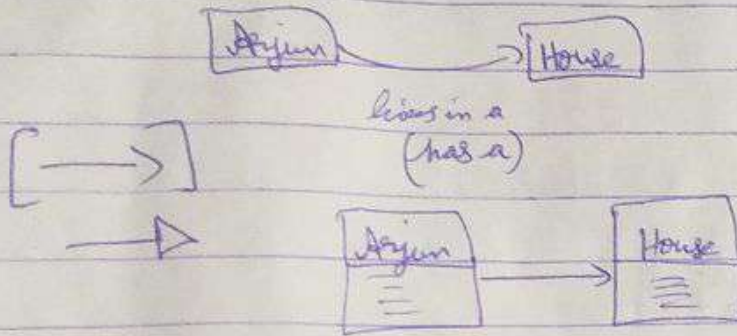
① class structure → Inheritance (is a) (5)
→ simple association (has a)
→ Aggregation
→ Composition

② Association / Connection

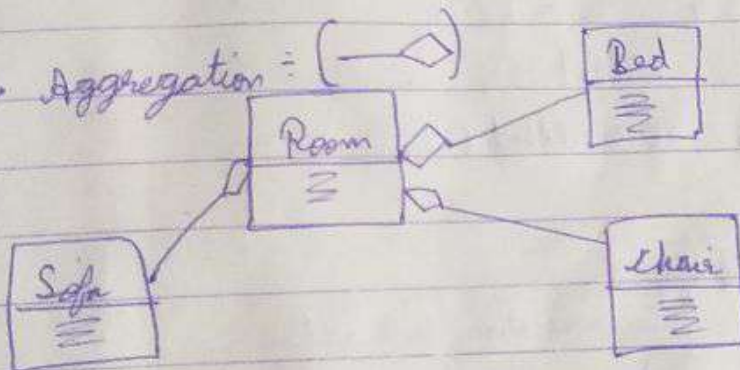
	Access Mode	within class	from child class	outside class	
Public	✓	✓	✓	✓	→ ⊕
Protected	✓	✓	✓	✗	→ ⊕
Private	✓	✗	✗	✗	→ ⊖

⇒ Association / Connection :

• Simple association (→)



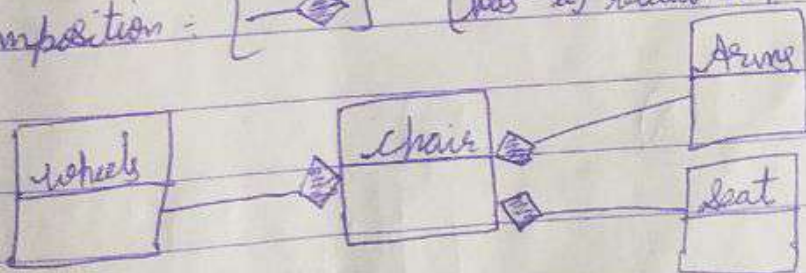
• Aggregation = (—◇)



{ Room, sofa, Bed is in Room. But can also exist independently }



• Composition = (—◆) (has-a) relationship



{ wheels, Arms & seat can't exist independently }

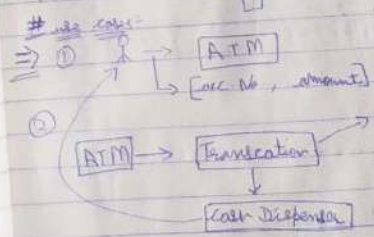
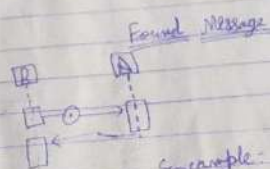
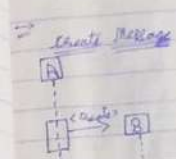
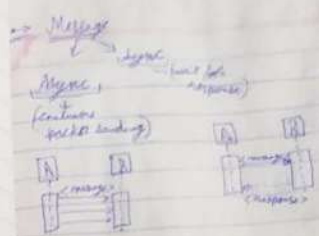
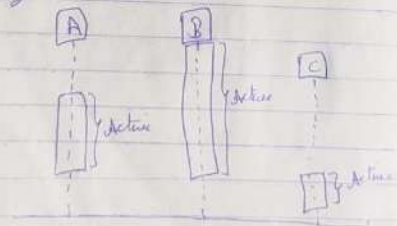

```

class A {
    method 1();
}
class B {
    A * a;
    B() { a = new A(); }
    method 2();
}
main() { B * b = new B();
        b -> method 2();
        b -> a -> method 1();
}

```

⇒ Sequence Diagram

- Communication / Interaction
- ① N ② ③ ④
 - ① A B C D
 - ② Life line
 - ③ Activation Bar
 - ④ Message

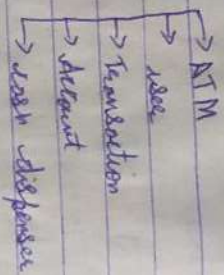


Example - Sequence diagram

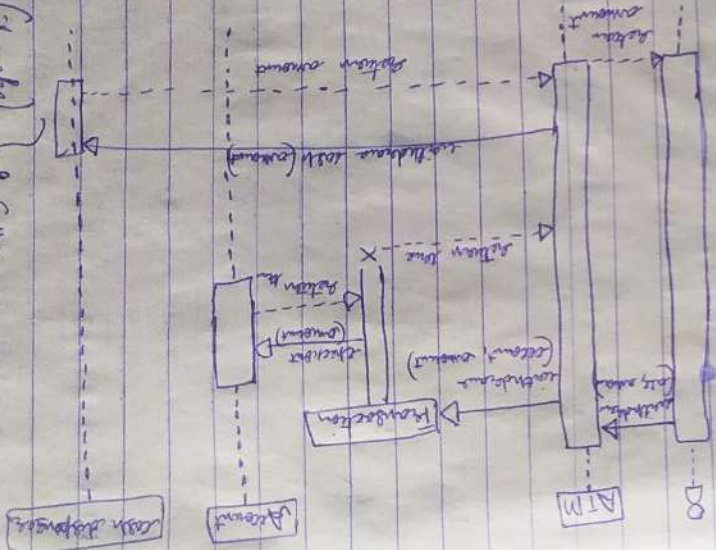
- ① Verify ATM Pin
- ② Verify account
- ③ Cash dispenser

⇒ Sequence Diagram :

- ① use case
- ② objects



③ Draw seq. diagram :



alt : (if-else)
 option : (if)
 loop : for / while
 other : (other cases in sequence diagram)