name	mark	fullMark

$$Pct = \frac{mark}{fullmark} * 100$$

- > 85 Excellent
- > 75 V.Good
- > 65 Good
- $>= 50$ Pass
- Fail

OOP

Student

instance variables { name, mark

static variable ← fullMark

Student (- , -)
GetPercent ( )
Get Grade ( )

S1

name	mark	fullMark
A	23	25

S2

name	mark	fullMark
M	20	25

set   get

Account

name
- balance
annualRate = 0.04

Account (- , -)
MonthlyRate → / 12
Monthly Interest → * balance
Deposit (amt)
withdraw (amt)

---

int [ ] x = new int [5];
.
.
.
List<int> x = new List<-->()

x.

x

index	value
0	17
1	23
2	12
3	25
4	18

Course
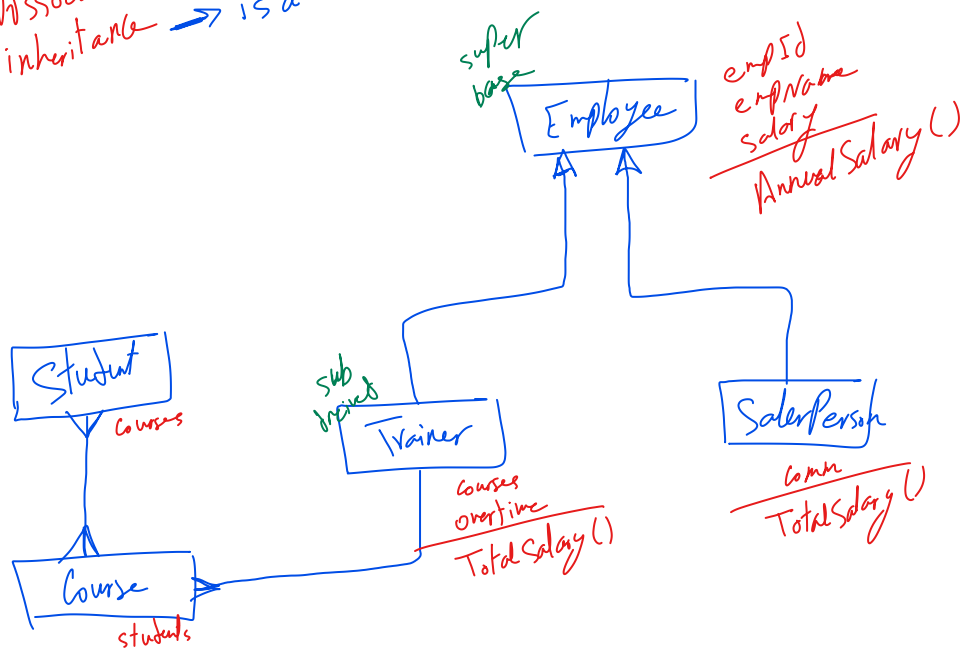
title
Price
students
discounts

Course (- , -)
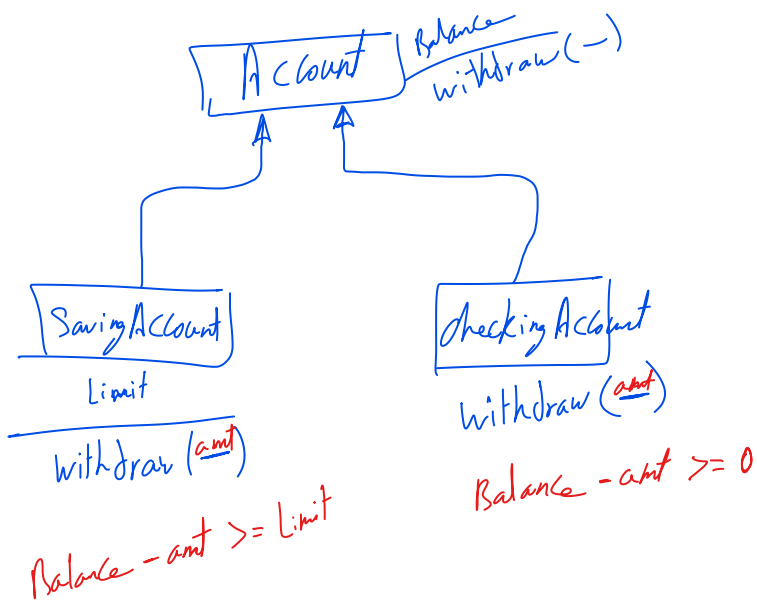AddStudent (—, —)
DropStudent (idx)
NumOf students

* Association → has a
* inheritance → is a

super / base
Employee
empId
empName
salary
AnnualSalary()

Var x = new Trainer(---)
x.

Student
courses

sub / derived
Trainer
courses
overtime
TotalSalary()

SalesPerson
comm
TotalSalary()

Course
students

Account
Balance
withdraw(—)

SavingAccount
Limit
withdraw(amt)

Balance − amt >= Limit

Checking Account
withdraw(amt)

Balance − amt >= 0

OOP Pillars

* Abstraction → classes & objects
* Encapsulation
* Inheritance
* Polymorphism

Employee x = new Trainer(—)