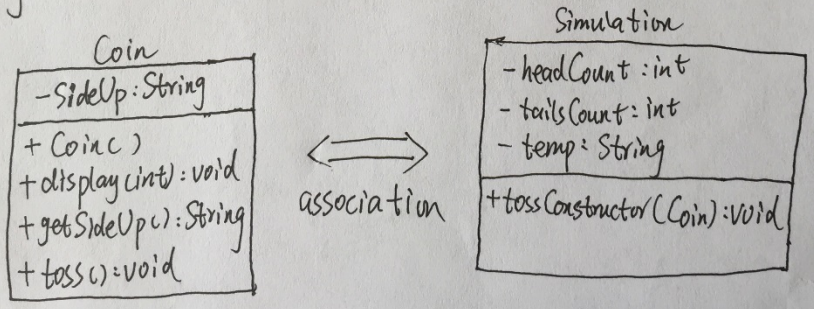
Assignment 1:

Part a: Coin Toss

In this part, three classes are involved. Coin class, Simulation class and Test class. The class relationship between these ~~three~~ two classes is association. Class Details are following:

Test class isn't involved



Part b: Parking Ticket Simulation

In this part, four classes are designed. Class details are following:

ParkedCar

- color : String
- licenseNumber : String
- make : String
- model : String
- ~~R~~eparkedMinutes : int

+ getColor() : String
+ getLicenseNumber() : String
+ getMake() : String
+ getModel() : String
+ getParkedMinutes() : int
+ setColor(String) : void
+ setLicenseNumber(String) : void
+ setMake(String) : void
+ setParkedMinutes(int) : void

ParkingMeter

- purchasedMinutes : int

+ getPurchasedMinutes() : int
+ setPurchasedMinutes(int) : void

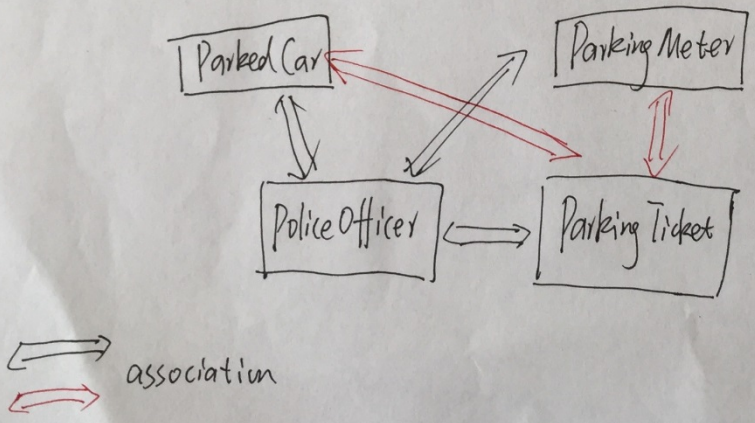
PoliceOfficer

- name : String
- badge : String

+ PoliceOfficer()
+ getBadge() : String
+ getName() : String
+ isIllegal(ParkedCar, ParkingMeter) : Boolean
+ issueTicket(ParkedCar, ParkingMeter, ParkingTicket) : void
+ toString() : String

ParkingTicket

- fine : int

+ getFineNumber(ParkedCar, ParkingMeter)() : int
+ toString(ParkedCar, ParkingMeter)() : String

For a clearly observation, I will give their relationships only class name listed.