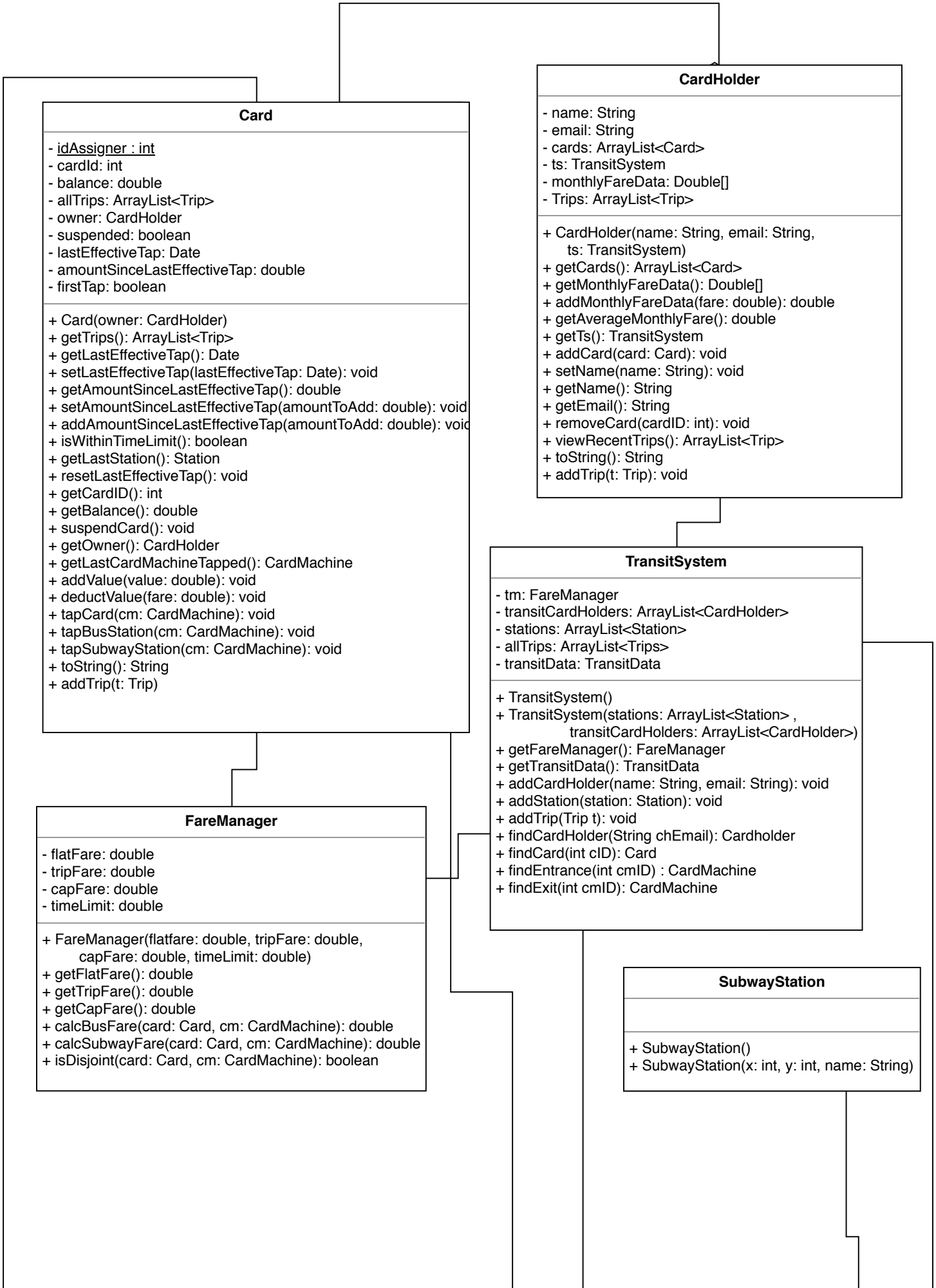
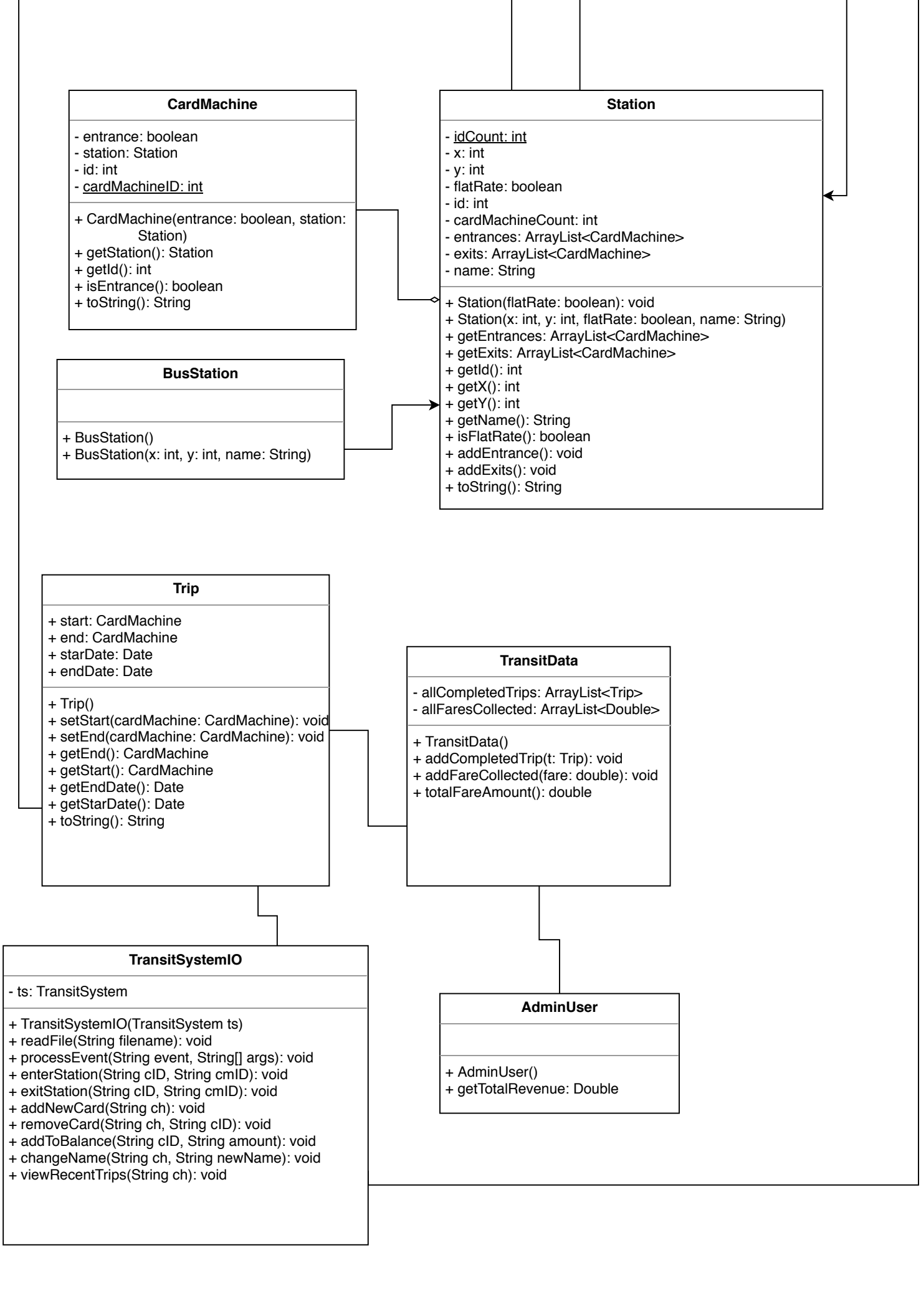

Card
- idAssigner : int
- cardId: int
- balance: double
- allTrips: ArrayList<Trip>
- owner: CardHolder
- suspended: boolean
- lastEffectiveTap: Date
- amountSinceLastEffectiveTap: double
- firstTap: boolean
+ Card(owner: CardHolder)
+ getTrips(): ArrayList<Trip>
+ getLastEffectiveTap(): Date
+ setLastEffectiveTap(lastEffectiveTap: Date): void
+ getAmountSinceLastEffectiveTap(): double
+ setAmountSinceLastEffectiveTap(amountToAdd: double): void
+ addAmountSinceLastEffectiveTap(amountToAdd: double): voic
+ isWithinTimeLimit(): boolean
+ getLastStation(): Station
+ resetLastEffectiveTap(): void
+ getCardID(): int
+ getBalance(): double
+ suspendCard(): void
+ getOwner(): CardHolder
+ getLastCardMachineTapped(): CardMachine
+ addValue(value: double): void
+ deductValue(fare: double): void
+ tapCard(cm: CardMachine): void
+ tapBusStation(cm: CardMachine): void
+ tapSubwayStation(cm: CardMachine): void
+ toString(): String
+ addTrip(t: Trip)
CardHolder
- name: String
- email: String
- cards: ArrayList<Card>
- ts: TransitSystem
- monthlyFareData: Double[]
- Trips: ArrayList<Trip>
+ CardHolder(name: String, email: String,
ts: TransitSystem)
+ getCards(): ArrayList<Card>
+ getMonthlyFareData(): Double[]
+ addMonthlyFareData(fare: double): double
+ getAverageMonthlyFare(): double
+ getTs(): TransitSystem
+ addCard(card: Card): void
+ setName(name: String): void
+ getName(): String
+ getEmail(): String
+ removeCard(cardID: int): void
+ viewRecentTrips(): ArrayList<Trip>
+ toString(): String
+ addTrip(t: Trip): void
TransitSystem
- tm: FareManager
- transitCardHolders: ArrayList<CardHolder>
- stations: ArrayList<Station>
- allTrips: ArrayList<Trips>
- transitData: TransitData
+ TransitSystem()
+ TransitSystem(stations: ArrayList<Station> ,
transitCardHolders: ArrayList<CardHolder>)
+ getFareManager(): FareManager
+ getTransitData(): TransitData
+ addCardHolder(name: String, email: String): void
+ addStation(station: Station): void
+ addTrip(Trip t): void
+ findCardHolder(String chEmail): Cardholder
+ findCard(int cID): Card
+ findEntrance(int cmID) : CardMachine
+ findExit(int cmID): CardMachine
FareManager
- flatFare: double
- tripFare: double
- capFare: double
- timeLimit: double
+ FareManager(flatfare: double, tripFare: double,
capFare: double, timeLimit: double)
+ getFlatFare(): double
+ getTripFare(): double
+ getCapFare(): double
+ calcBusFare(card: Card, cm: CardMachine): double
+ calcSubwayFare(card: Card, cm: CardMachine): double
+ isDisjoint(card: Card, cm: CardMachine): boolean
SubwayStation
+ SubwayStation()
+ SubwayStation(x: int, y: int, name: String)


CardMachine
- entrance: boolean
- station: Station
- id: int
- cardMachineID: int
+ CardMachine(entrance: boolean, station: Station)
+ getStation(): Station
+ getId(): int
+ isEntrance(): boolean
+ toString(): String
Station
- idCount: int
- x: int
- y: int
- flatRate: boolean
- id: int
- cardMachineCount: int
- entrances: ArrayList<CardMachine>
- exits: ArrayList<CardMachine>
- name: String
+ Station(flatRate: boolean): void
+ Station(x: int, y: int, flatRate: boolean, name: String)
+ getEntrances: ArrayList<CardMachine>
+ getExits: ArrayList<CardMachine>
+ getId(): int
+ getX(): int
+ getY(): int
+ getName(): String
+ isFlatRate(): boolean
+ addEntrance(): void
+ addExits(): void
+ toString(): String
BusStation
+ BusStation()
+ BusStation(x: int, y: int, name: String)
Trip
+ start: CardMachine
+ end: CardMachine
+ starDate: Date
+ endDate: Date
+ Trip()
+ setStart(cardMachine: CardMachine): void
+ setEnd(cardMachine: CardMachine): void
+ getEnd(): CardMachine
+ getStart(): CardMachine
+ getEndDate(): Date
+ getStarDate(): Date
+ toString(): String
TransitData
- allCompletedTrips: ArrayList<Trip>
- allFaresCollected: ArrayList<Double>
+ TransitData()
+ addCompletedTrip(t: Trip): void
+ addFareCollected(fare: double): void
+ totalFareAmount(): double
TransitSystemIO
- ts: TransitSystem
+ TransitSystemIO(TransitSystem ts)
+ readFile(String filename): void
+ processEvent(String event, String[] args): void
+ enterStation(String cID, String cmID): void
+ exitStation(String cID, String cmID): void
+ addNewCard(String ch): void
+ removeCard(String ch, String cID): void
+ addToBalance(String cID, String amount): void
+ changeName(String ch, String newName): void
+ viewRecentTrips(String ch): void
AdminUser
+ AdminUser()
+ getTotalRevenue: Double