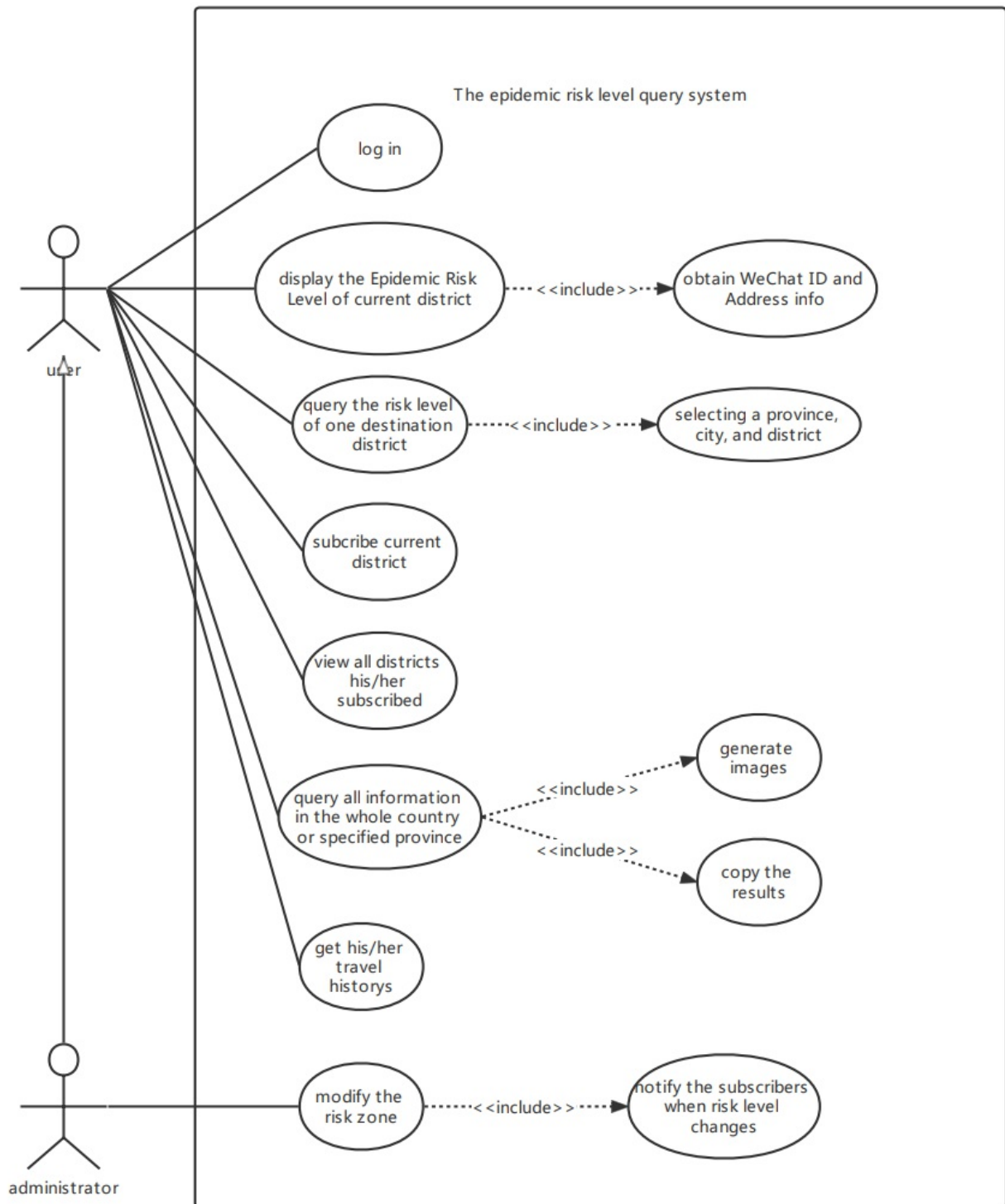# Assignment 1 UML Design
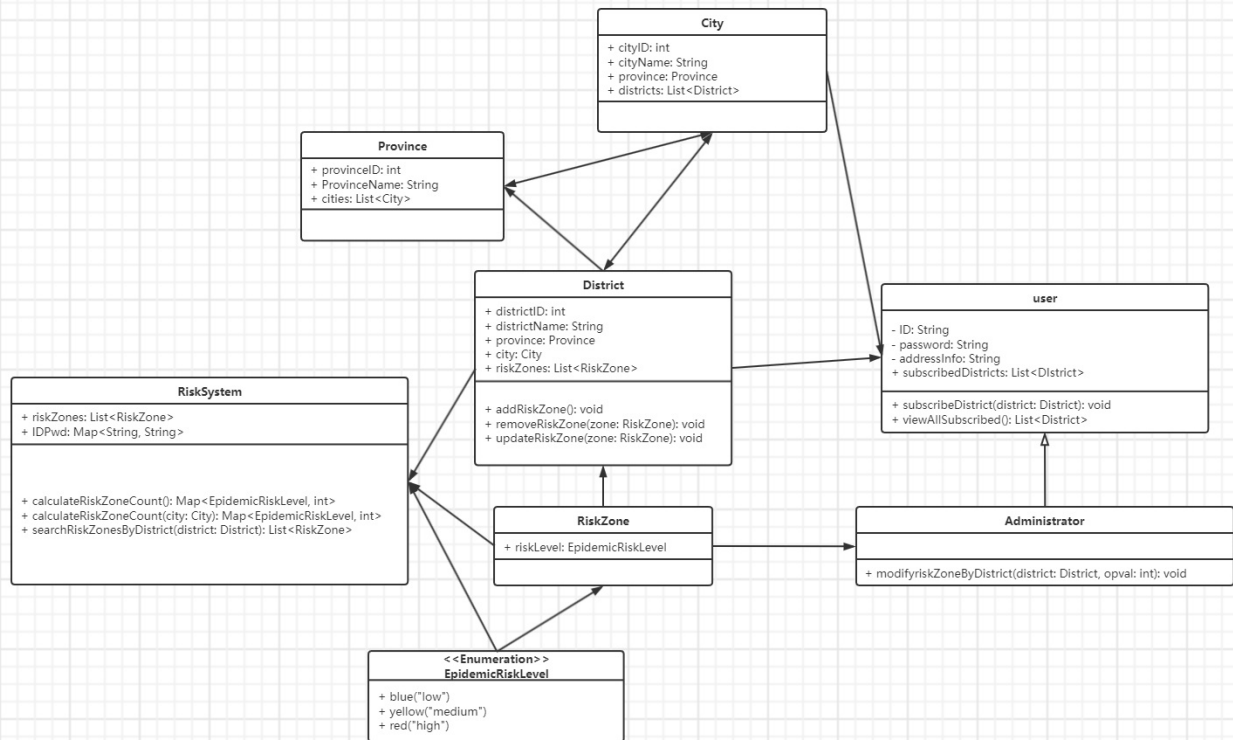
SID: 12011327
Name: 刘乐奇

Q1: Use case diagram

Q2: Class diagram

City

+ cityID: int
+ cityName: String
+ province: Province
+ districts: List<District>

Province

+ provinceID: int
+ ProvinceName: String
+ cities: List<City>

District

+ districtID: int
+ districtName: String
+ province: Province
+ city: City
+ riskZones: List<RiskZone>

+ addRiskZone(): void
+ removeRiskZone(zone: RiskZone): void
+ updateRiskZone(zone: RiskZone): void

user

- ID: String
- password: String
- addressInfo: String
+ subscribedDistricts: List<DIstrict>

+ subscribeDistrict(district: District): void
+ viewAllSubscribed(): List<District>

RiskSystem

+ riskZones: List<RiskZone>
+ IDPwd: Map<String, String>

+ calculateRiskZoneCount(): Map<EpidemicRiskLevel, int>
+ calculateRiskZoneCount(city: City): Map<EpidemicRiskLevel, int>
+ searchRiskZonesByDistrict(district: District): List<RiskZone>

RiskZone

+ riskLevel: EpidemicRiskLevel

Administrator

+ modifyriskZoneByDistrict(district: District, opval: int): void

**<<Enumeration>>
EpidemicRiskLevel**

+ blue("low")
+ yellow("medium")
+ red("high")

Q3: Sequence diagram