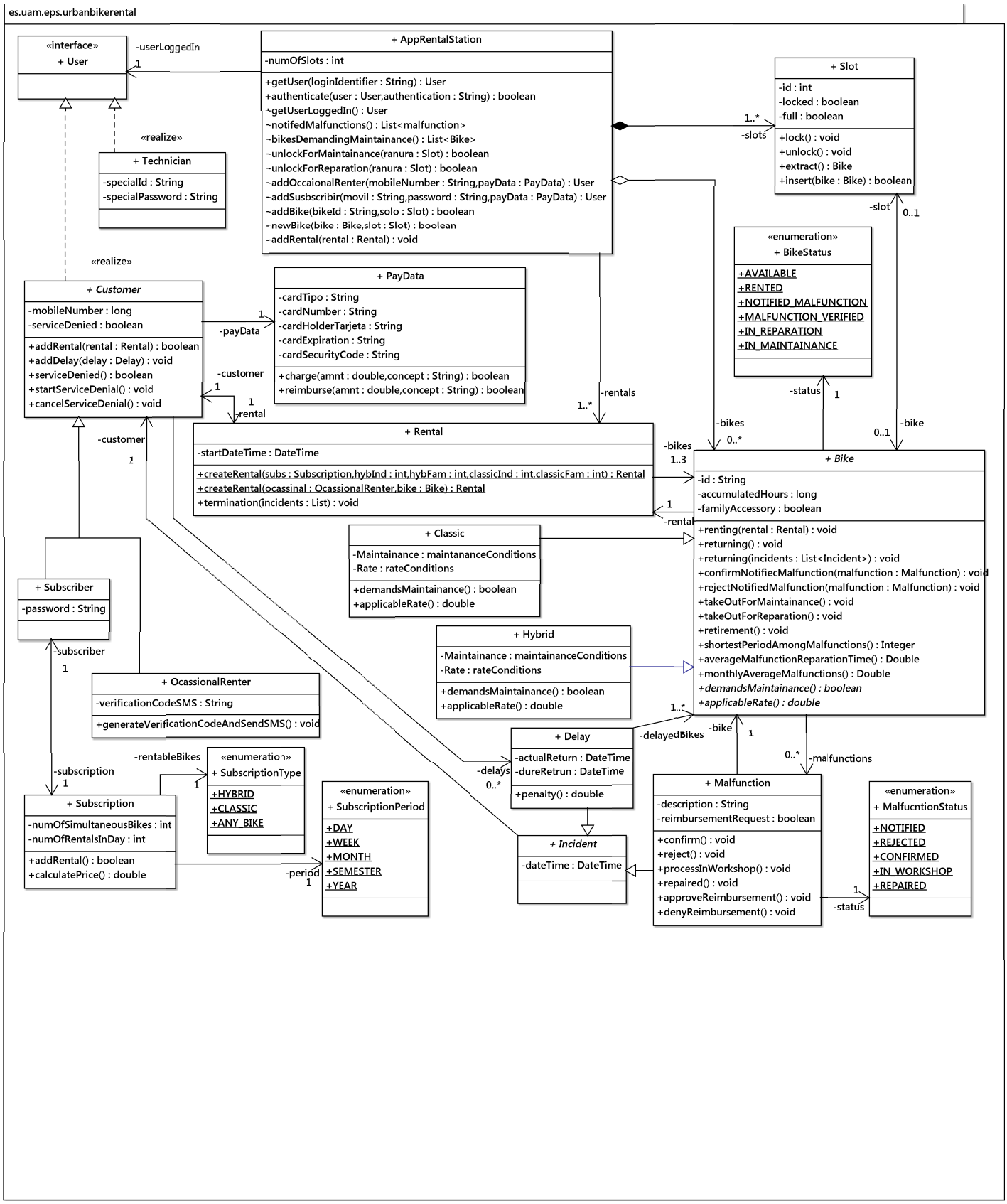
es.uam.eps.urbanbikerental
«interface»
+ User
-userLoggedIn
1
+ AppRentalStation
-numOfSlots : int
+getUser(loginIdentifier : String) : User
+authenticate(user : User,authentication : String) : boolean
+getUserLoggedIn() : User
~notifedMalfunctions() : List<malfunction>
~bikesDemandingMaintainance() : List<Bike>
~unlockForMaintainance(ranura : Slot) : boolean
~unlockForReparation(ranura : Slot) : boolean
~addOccaionalRenter(mobileNumber : String,payData : PayData) : User
~addSusbscribir(movil : String,password : String,payData : PayData) : User
~addBike(bikeId : String,solo : Slot) : boolean
~newBike(bike : Bike,slot : Slot) : boolean
~addRental(rental : Rental) : void
+ Slot
-id : int
-locked : boolean
-full : boolean
+lock() : void
+unlock() : void
+extract() : Bike
+insert(bike : Bike) : boolean
1..*
-slots
«realize»
+ Technician
-specialId : String
-specialPassword : String
-slot
0..1
«enumeration»
+ BikeStatus
+AVAILABLE
+RENTED
+NOTIFIED_MALFUNCTION
+MALFUNCTION_VERIFIED
+IN_REPARATION
+IN_MAINTAINANCE
«realize»
+ Customer
-mobileNumber : long
-serviceDenied : boolean
+addRental(rental : Rental) : boolean
+addDelay(delay : Delay) : void
+serviceDenied() : boolean
+startServiceDenial() : void
+cancelServiceDenial() : void
+ PayData
-cardTipo : String
-cardNumber : String
-cardHolderTarjeta : String
-cardExpiration : String
-cardSecurityCode : String
+charge(amnt : double,concept : String) : boolean
+reimburse(amnt : double,concept : String) : boolean
1
-payData
-customer
1
1
-rental
-rentals
1..*
-status
1
-bikes
0..*
0..1
-bike
-customer
1
+ Rental
-startDateTime : DateTime
+createRental(subs : Subscription,hybInd : int,hybFam : int,classicInd : int,classicFam : int) : Rental
+createRental(ocassinal : OcassionalRenter,bike : Bike) : Rental
+termination(incidents : List) : void
-bikes
1..3
+ Bike
-id : String
-accumulatedHours : long
-familyAccessory : boolean
+renting(rental : Rental) : void
+returning() : void
+returning(incidents : List<Incident>) : void
+confirmNotifiecMalfunction(malfunction : Malfunction) : void
+rejectNotifiedMalfunction(malfunction : Malfunction) : void
+takeOutForMaintainance() : void
+takeOutForReparation() : void
+retirement() : void
+shortestPeriodAmongMalfunctions() : Integer
+averageMalfunctionReparationTime() : Double
+monthlyAverageMalfunctions() : Double
+demandsMaintainance() : boolean
+applicableRate() : double
1
-rental
+ Classic
-Maintainance : maintananceConditions
-Rate : rateConditions
+demandsMaintainance() : boolean
+applicableRate() : double
+ Subscriber
-password : String
-subscriber
1
+ Hybrid
-Maintainance : maintainanceConditions
-Rate : rateConditions
+demandsMaintainance() : boolean
+applicableRate() : double
+ OcassionalRenter
-verificationCodeSMS : String
+generateVerificationCodeAndSendSMS() : void
1..*
-delayedBikes
-bike
1
0..*
-malfunctions
+ Delay
-actualReturn : DateTime
-dureRetrun : DateTime
+penalty() : double
-rentableBikes
«enumeration»
+ SubscriptionType
+HYBRID
+CLASSIC
+ANY_BIKE
-subscription
1
1
-delays
0..*
+ Subscription
-numOfSimultaneousBikes : int
-numOfRentalsInDay : int
+addRental() : boolean
+calculatePrice() : double
«enumeration»
+ SubscriptionPeriod
+DAY
+WEEK
+MONTH
+SEMESTER
+YEAR
-period
1
+ Incident
-dateTime : DateTime
+ Malfunction
-description : String
-reimbursementRequest : boolean
+confirm() : void
+reject() : void
+processInWorkshop() : void
+repaired() : void
+approveReimbursement() : void
+denyReimbursement() : void
«enumeration»
+ MalfucntionStatus
+NOTIFIED
+REJECTED
+CONFIRMED
+IN_WORKSHOP
+REPAIRED
1
-status