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GuestUser

+«constructor»GuestUser(userType :UserType)
+«constructor»GuestUser(userId :String, userType :UserType)
+bookPurchase(bookPrice : double)
+foodPurchase(foodPrice: double)

+getUserInfo():String+setUsername(username: String):Boolea
+getUsername():String

«abstract»
User

~ userId: String
# userType: UserType
~ username: String

#ssn: int
-numofUsers = 0

+«constructor»User()
+«constructor»User(userId : String, userType : UserType)
+getNumOfUsers(): int
+«abstract»getUsername(): String
+«abstract»setUsername(username : String) :Boolean
+getUserId(): String
+setUserId(userId : String)
+getUserType(): UserType
+setUserType(userType : UserType)
+«abstract» getUserInfo() : String
#«abstract» genUserId() : String

«interface»
UserAction

~bookPurchase(bookPrice: double)
~foodPurchase(foodPrice: double)

Implements

Extends

Association

«Enumerations»
UserType

GUEST
REGISTERED
VIP

Extends

«interface»
RegisteredUserAction

~ borrowBook(userId :String,
recordId: String)
~ resetPassword(recordId : String)
~ returnBook(userId : String)

Implements

RegisteredUser

~password : String
-recordList: ArrayList<Record>

+DISCOUNT : double = .9

+«constructor»RegisteredUser(userType:UserType, username :String,
password :String)
+«constructor»RegisteredUser(userId :String, userType: UserType,
username: String, password :String)+getUsername(): String
+setUsername(String): Boolean
~getPassword(): String
~setPassword(String)
+getRecordList(): ArrayList<Record>
+setRecordList(ArrayList<Record>):
+borrowBook(String, String)
+resetPassword(String)
+returnBook(String)
+bookPurchase(double)
+foodPurchase(double)
+getUserInfo(): String

VipUser

-vipLevel : Integer

+vipDiscount : double

+VipUser(username : String, password : String,
int vipLevel)
+VipUser(userId : String, userType : UserType,
username : String, password : String, int vipLevel)
+getVipLevel(): Integer
+setVipLevel(vipLevel : int)
+bookPurchase(bookPrice : double)
+foodPurchase(foodPrice: double)
+customService()
+getUserInfo(): String

Extends

Implements

«interface»
VipUserAction

~customService()

Record

-recordId: String
-bookId: String
-userId: String
-state: RecordState

+«constructor»Record()
+«constructor»Record(userId :String, bookId :String)
+getRecordId(): String
+setRecordId(recordId: String)
~getBookId(): String
~setBookId(bookId : String)
#getUserId(): String
#setUserId(userId :String)
+getState() : RecordState
+setState(state :RecordState)

-genRecordId(): String

Association

«Enumerations»
RecordState

BORROWING
RETURNED