UML Class Diagrams

TestProject
<u>main(args : String [])</u>

HotelReservationSystem
-utils : ConstantUtils -menuPrinter : MenuPrinter -userInputReader : InputReader -rReader : ReservationReader
+run()

AnalyticsGenerator
-hReader : HotelReader -rReader : ReservationReader -sReader : StayReader -hReader : HotelReader
+outputHotelOccupancyAnalytics(chosenRange : DateRange) +outputRoomOccupancyAnalytics(chosenRange : DateRange) +outputFinancialAnalytics(chosenRange : DateRange)

Cancellation
-reservation : Reservation -cancellationDate : Date -refunded : boolean
+isRefunded() : boolean +getDate() : Date +getCost() : Cost +getReservation() : Reservation +toString() : String

CancellationReader
-fileString : String -cancellations : ArrayList<Cancellation>
+costForDate(chosenDate : Date) : double

CancellationWriter
-fileString : String -userInputCancellation : Cancellation
+makeCancellation(rReader : ReservationReader)

ConstantUtils

+CANCELLATIONS_FILE : String
+HOTELS_FILE : String
+RESERVATIONS_FILE : String
+STAYS_FILE : String
+USERS_FILE : String
+EXITVAL_CUSTOMER : int
+EXITVAL_DESKADMIN : int
+EXITVAL_SUPERVISOR : int

Date

-date : String
-daysPerMonth : int []
-myCalendar : GregorianCalendar

+getDateString() : String
+getDay() : int
+getMonth() : int
+getYear() : int
+getDayOfWeekIndex() : int
+getCurrentDate() : Date
+isValid() : boolean
+isLeapYear() : boolean
+isLeapYear(year : int) : boolean
+isMonthsOld(numberOfMonths : int) : boolean
+isDaysFromNow(numberOfDays : int) : boolean
+isBeforeOrEqual(comparisonDate : Date) : boolean
+isAfterOrEqual(comparisonDate : Date) : boolean
+incrementDays(numberOfDays : int)
+getDaysSinceStartOfYear() : int

DateRange

-startDate : Date
-endDate : Date

+getStartDateString() : String
+getEndDateString() : String
+getStartDate() : Date
+getEndDate() : Date
+isValidRange() : boolean
+getLengthInDays() : int

Hotel

-hotelType : String
-roomTypes : ArrayList<RoomType>

+getHotelType() : String
+getRoomType(index : int) : RoomType
+getRoomTypes() : ArrayList<RoomType>
+addRoomType(newRoom : RoomType)
+getTotalNumberOfRooms() : int
+hasRoomType(roomType : String) : boolean

HotelReader

-fileString : String
-hotelInfo : ArrayList<Hotel>

+getHotel(index : int) : Hotel
+getHotelInfo() : ArrayList<Hotel>
+getAllRoomTypes() : ArrayList<RoomType>

InputReader

-sc : Scanner
-userInputValidator : InputValidator

+getValidLoginChoice() : int
+getValidUserMenuChoice(exitValuse : int) : int
+getValidAnalyticsChoice() : int
+readUserName() : String
+readPassword() : String
+readInValidReservation() : Reservation
+readInValidCancellation(rReader : ReservationReader) : Cancellation
+readInValidStay(rReader : ReservationReader) : Stay
+printDiscountStartPrompt()
+getReservationToBeDiscounted() : Reservation
+getDiscountAmount() : double
+printDiscountEndPrompt()
+getValidDateRange() : DateRange

InputValidator

+inputIsInRange(intput : String, minValueOfRange : int, maxValusOfRange: int) : boolean
+inputIsInteger(input : String) : boolean
+isValidReservationType(input : String) : boolean
+inputIsDouble(input : String) : boolean
+isValidOccupancy(input : String) : boolean

MenuPrinter

+printLoginMenu()
+printCustomerMenu()
+printSupervisorMenu()
+printDeskAdministratorMenu()

Reservation

-reservationNumber : int
-reservationName : String
-reservationType : String
-checkInDate : Date
-numberOfNights : int
-numberOfRooms : int
-rooms : Room[]
-totalCost : double
-deposit : double
-processed : String

+GetReservationNumber() : int
+getReservationName() : String
+getReservationType() : String
+geCheckInDate() : Date
+ getNumberOfNights() : int
+getNumberOfRooms() : int
+getDeposit() : double
+getFirstRoomType() : String
+setRooms(rooms: Room[])
+setTotalCost(toalCost : double)
+setAsProcessed()
+isProcessed() : boolean
+calculateTotalCost(hReader : HotelReader) : double
+toString() : String
+applyAdvancePurchaseDiscount()
+equals(res : Reservation) : boolean

ReservationReader

-reservations: ArrayList<Reservation>
-fileString : String

+removeExpiredReservations()
+findReservation(reservationNumber : int) : Reservation
+update()
+printUpdateReservationsToFile()
+applyDiscount()
+incomeForDate(chosenDate : Date) : double

ReservationWriter

-fileString : String
-userInputReservation : Reservation

+makeReservation(hReader : HotelReader)

Room

-RoomNumber : int
-roomTypr : String
-occupancy : String

+getRoomNumber() : int
+getRoomType() : String
+getOccupancy() : String
+setRoomNumber(rNumber : int)
+setRoomType(rType : String)
+setOccupancy(newOccupancy : String)

RoomType

-type : String
-numberOfRooms : int
-occupancyMin : String
-occupancyMax : String
-dailyCosts : double []

+getType() : String
+getNumberOfRooms() : int
+getCostForDay(dayOfWeekIndex : int) : double
+toString() : String

Stay

-reservation : Reservation
-checkInDate : Date
-checkOutDate : Date

+getReservation() : Reservation
+setCheckInDate(todaysDate : Date)
+setCheckoutDate(expectedCheckoutDate : Date)
+getCheckInDate() : Date
+getCheckOutDate() : Date
+getFirstRoomType() : int
+getNumberOfRooms() : int
+getCost() : double
+toString() : String
equals(stay : Stay) : boolean

StayReader

-fileString : String
-stays : ArrayList<Stay>

+getStayInfo() : ArrayList<Stay>
+getIndex(stay : Stay) : int
+incomeForDate(chosenDate : Date) : double

StayWriter

-fileString : String
-userInputStay : Stay
-iReader : InputReader

+checkInCustomer(rReader : ReservationReader, sReader : StayReader)
+checkOutCustomer(rReader : ReservationReader, sReader : StayReader)

User

-type : String
-name : String
-password : String

+getType() : String
+getName() : String
+getPassword() : String
+equals(inputUser : User) : boolean

UserReader

-fileString : String
-userInfo : ArrayList<String>