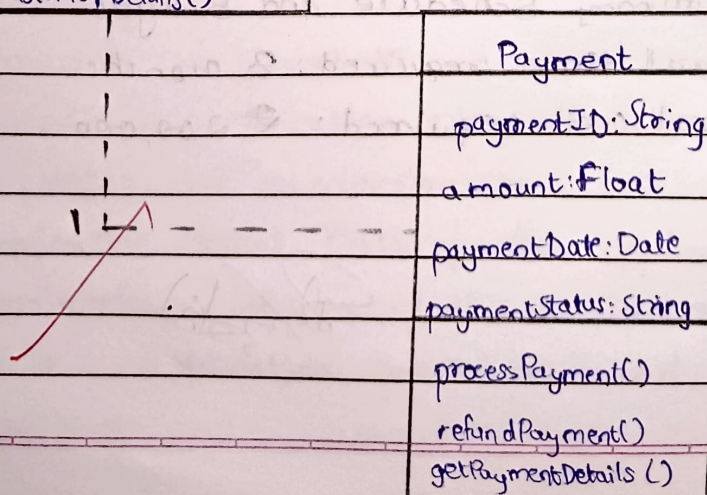
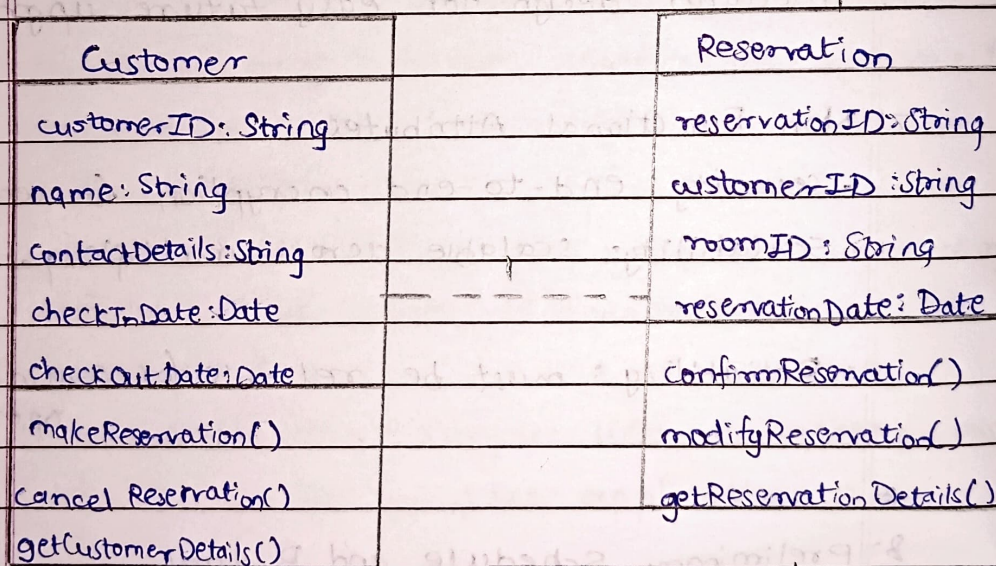
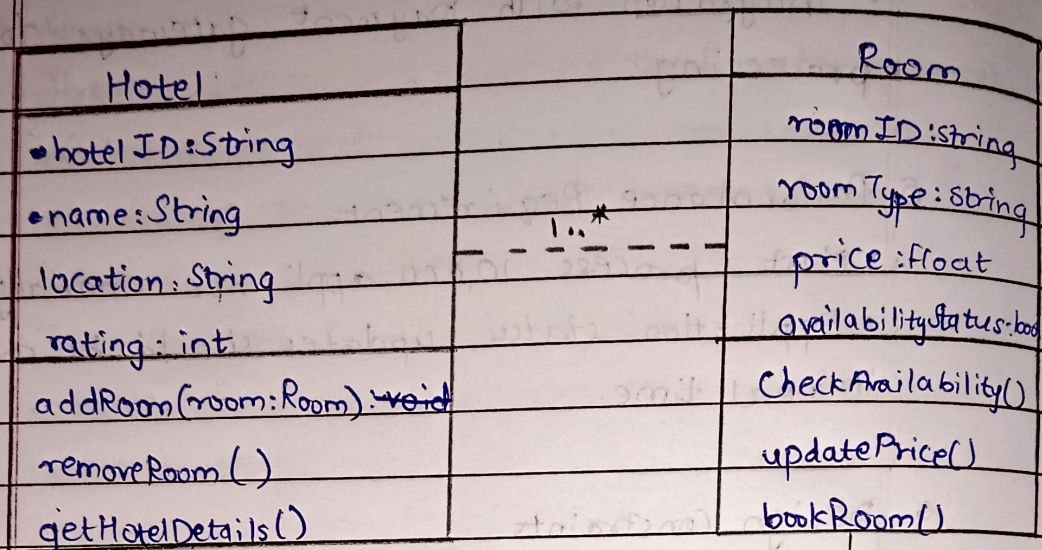


7/10/24

i) Write class diagrams for all five applications

(i) Hotel Management System



② Credit Card Processing

Customer		CreditCard
customerID: String		cardNumber: String
name: String		expiryDate: Date
contactDetails: String	1..*	cardType: String
email: String		cvv: String
createAccount()		validateCard()
updateContactDetails()		getCardDetails()
getCustomerDetails()		updateExpiryDate()

Merchant		Transaction
merchantID: String		transactionID: String
name: String		amount: float
businessType: String	1	transactionDate: Date
contactDetails: String		status: String
registerMerchant()		processTransaction()
updateBusinessDetails()		refundTransaction()
getMerchantDetails()		getTransactionDetails()

Payment Gateway

gatewayID: String
 providerName: String
 processPayment()
 verifyTransaction()
 generateTransactionReport()

③ Library Management System

Book	Member
bookID: String	memberID: String
title: String	name: String
author: String	membershipType: String
ISBN: String	contactDetails: String
availabilityStatus: Boolean	borrowBook()
checkAvailability()	returnBook()
updateStatus()	payFines()

Transaction 1..*

transactionID

Librarian	Transaction
librarianID: String	transactionID: String
name: String	borrowDate: Date
employmentDate: Date	returnDate: Date
addBook()	fineAmount: float
removeBook()	createTransaction()
manageMembers()	calculateFine()

④ Stock Maintenance System

Product	Supplier
productID: string	supplierID: String
productName: string	supplierName: String
category: String	contactDetails: String
price: float	supplyProduct()
stockQuantity: int	getSupplierInfo()
updateStock()	
checkStock()	
setPrice()	

Inventory Transaction	Stock
transactionID: String	stockID: String
transactionDate: Date	location: String
productID: String	lastUpdated: Date
quantity: int	addProduct()
transactionType: String	removeProduct()
createTransaction()	getStockDetails()
getTransactionDetails()	

⑤ Passport Automation System

Applicant	Application
applicant ID: String	application ID: String
name: String	submission Date: Date
date of Birth: Date	status: String
nationality: String	fee Paid: Boolean
contact Details: String	process Application()
submit Application()	update status()
update Contact Details()	generate Receipt()
check Application Status()	

Authority	Passport
authority ID: String	passport ID: String
name: String	issue Date: Date
designation: String	expiry Date: Date
approve Application()	type: String
reject Application()	renew Passport()
verify Application()	validate Passport()
	get Passport Details()

7/04/24