"Total: 30.00 out of 50.00
Grade: B- 60.00%"

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Course: OOP2
Assignment1

A) Payment system

The core process tacked will be the payment system, which would allow the client to pay for the rental at the main rental depot using cash or credit card or online using PayPal or credit card. The payment system would consist of a Payment Gateway. The purpose of the Payment Gate way is to approve the transaction between the client and the This solution would ensure the security and the authenticity of transactions done both online and in person it would also give the customer more payment options.

"Section A:
Solution Scope: Clearly defined, easy to follow
Scope Granularity: Moderate, but could be more detailed
Assumptions: missing
TOTAL: 4.00 out of 6"

B) **High-Level Narrative**

Use Case: Pay for Items at Main Rental Depot with Cash

Actors: Customer, Cashier

Type: primary

Description:
A customer enters the main rental depot, after selecting their equipment of choice they approach the Clerk and is given be given the option to pay via cash or via credit card, the cash is the payment method preferred and the Clerk/person operating the system would receive the payment and confirm the fees are sufficient using the system and ends the transaction, if the funds provided is not sufficient the clerk would cancel the transaction.

Expanded Use Case

Use case: Pay for Items at Main Rental Depot with cash.

Actors: Customer (Initiator), Clerk

Purpose: To pay the rental fees for some amount of equipment at the main depot of the business with cash.

Overview: A customer enters the main rental depot, after selecting their equipment of choice they approach the Clerk and choses to pay via cash. The Clerk would receive the payment and confirm the fees are sufficient using the system and ends the transaction, if the funds provided is not sufficient the clerk would cancel the transaction.

Type: Primary, Essential

Typical Course of Events

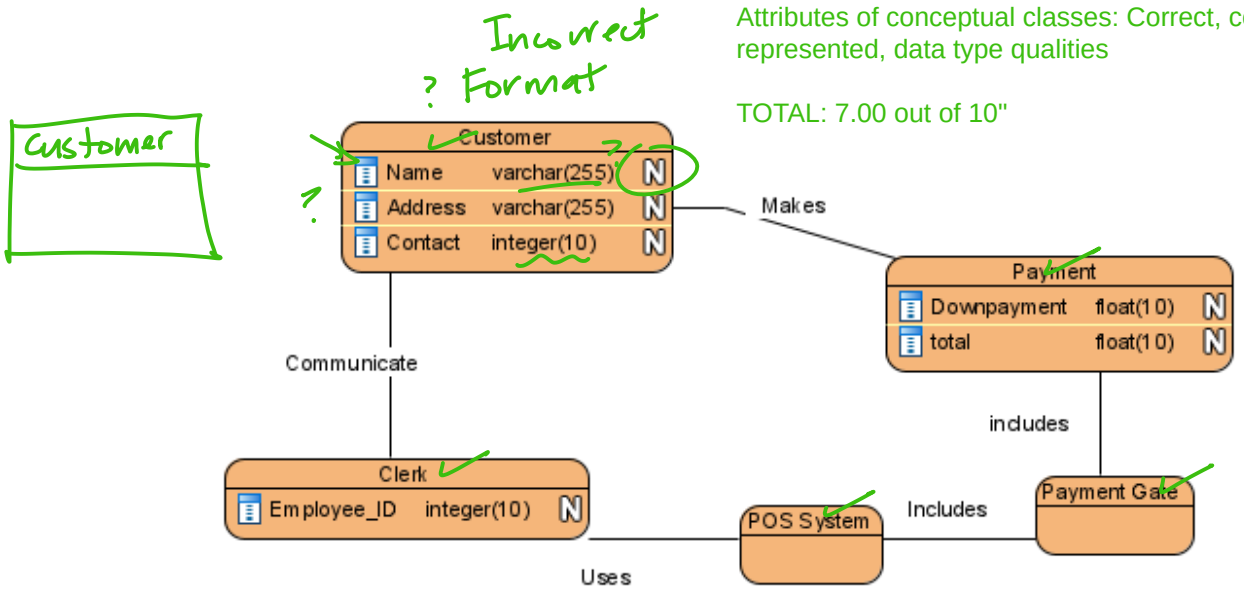
Actor Action	System Response
1. The Customer chooses their preferred payment method.	
2. Cash is chosen by the Customer and the Clerk confirms the method on the system.	3. The system shows the interface to confirm the cash payment.
4. The Clerk receives the payment from the customer and confirms that the amount is accurate on the system.	5. The system outputs the relevant transaction information and closes the transaction.

"Section B:
Technology Free Descriptions: No technologies or implementation details in the description
Quality of Use Case: All essential operations modelled for the solution scope
Generalisation: Sufficient abstraction of main events and interactions
Use case goal: Clear, applicable to scope
High Level Use Case Match with Expanded : Proper/good, close match
Actors / Stakeholders and Interactions: Correct roles and stakeholders in scenario
Observable System Result: Missing goals, success/failure outcomes
Narrative Completeness: Incomplete and many important details missing
Correctness/Flow: Partially complete steps, some logic missing
TOTAL: 9.00 out of 14"

C) Conceptual model

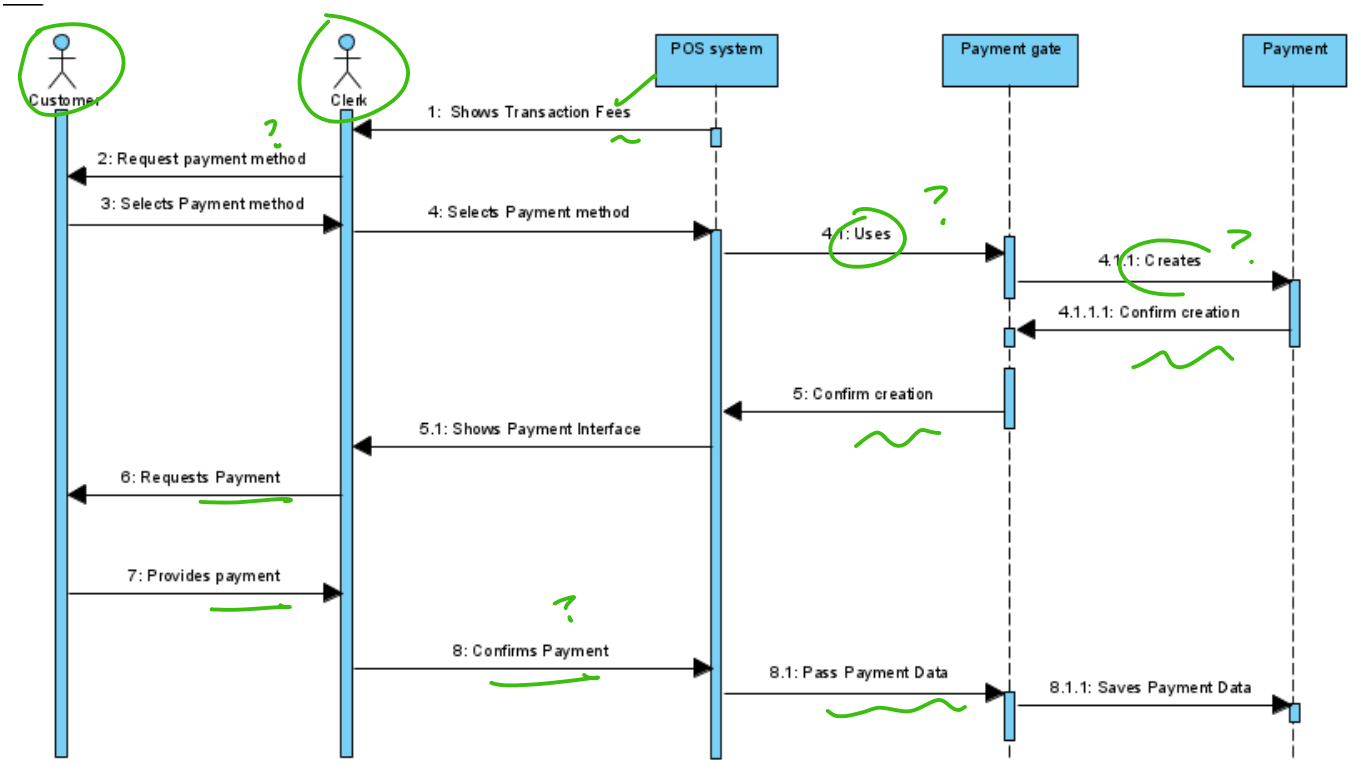
"Section C:
Conceptual classes: Near complete (3-4 concepts), some more modelling needed, mostly correct notation
Associations between conceptual classes: Complete relationships, well-named, mostly correct connections, some software relationships modelled
Multiplicities: Correct, reasonable value ranges
Attributes of conceptual classes: Correct, core attributes represented, data type qualities

TOTAL: 7.00 out of 10"

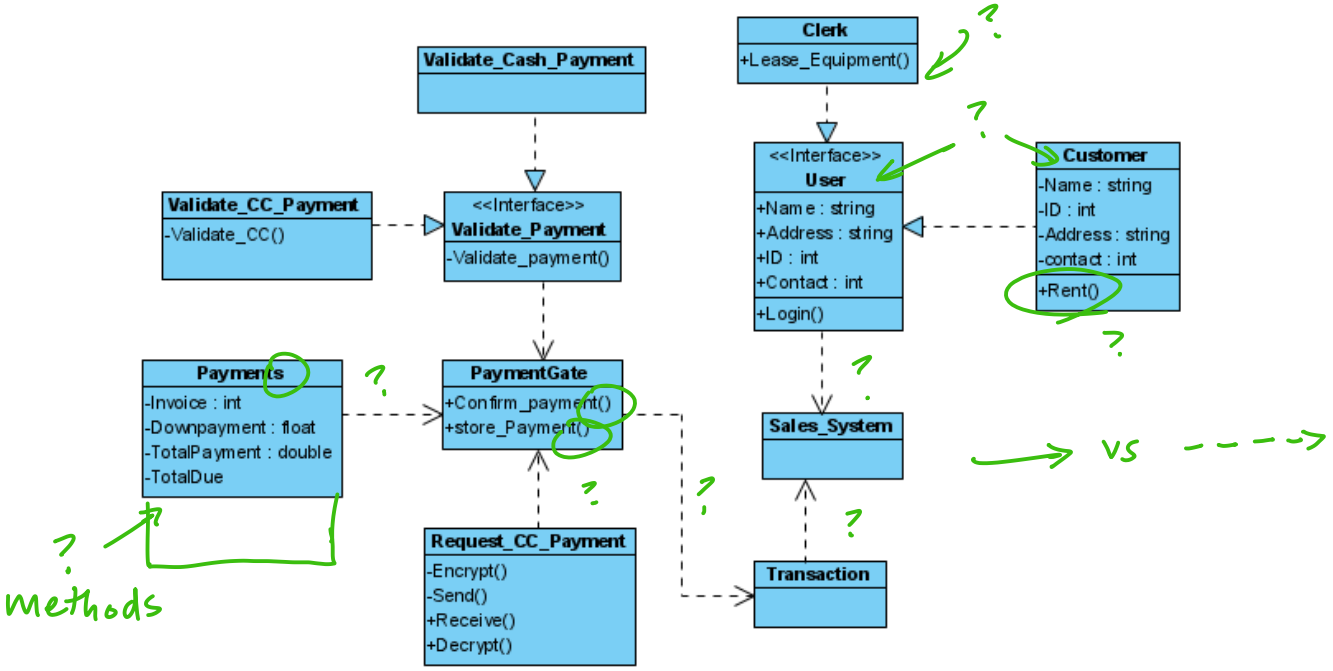


D) Sequence Diagram

"Section D:
Actor/System Objects: More objects required (vs System/Database if present);
Sequence of Events: Partially correct sequence
Actor/Object lifelines: Correct lifelines, some incorrect activation boxes
Interactions between objects: messages/events: 6-7 exchanges of messages, mostly appropriate message names (partly tech-free), correct use of arrows, mostly correct input values + return values
TOTAL: 7.00 out of 10"



E) Class Diagram



"Section E:
Classes: 3-4 classes,
more modelling needed
Associations: Incomplete, incorrect relationships.
Poor modelling overall
Operations: Incomplete/insiffucient behaviour for core classes
Attributes of classes: incomplete/insufficient attributes for core classes
TOTAL: 3.00 out of 10"