CSA4001-MANAGEMENT INFORMATION SYSTEM FOR DATA OPTIMIZATION

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4) Draw a UML diagram for ATM System using CASE tool. The banking system allows a customer to access the financial transactions by ATM System, it has a step-by-step process describe the work of this process and elaborate the what are the work can do by customer, banking system, administrator and technicians with the ATM system.

AIM:

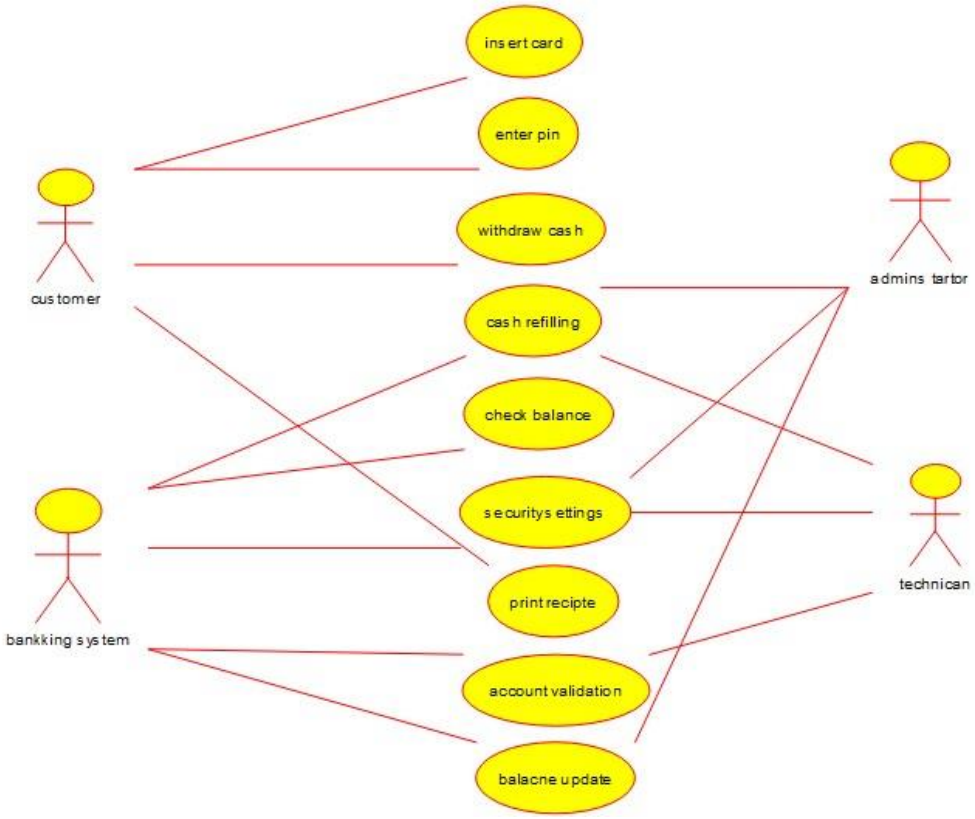
To Draw a UML diagram for ATM System using CASE tool. The banking system allows a customer to access the financial transactions by ATM System, it has a step-by-step process describe the work of this process and elaborate the what are the work can do by customer, banking system, administrator and technicians with the ATM system.

Procedure:

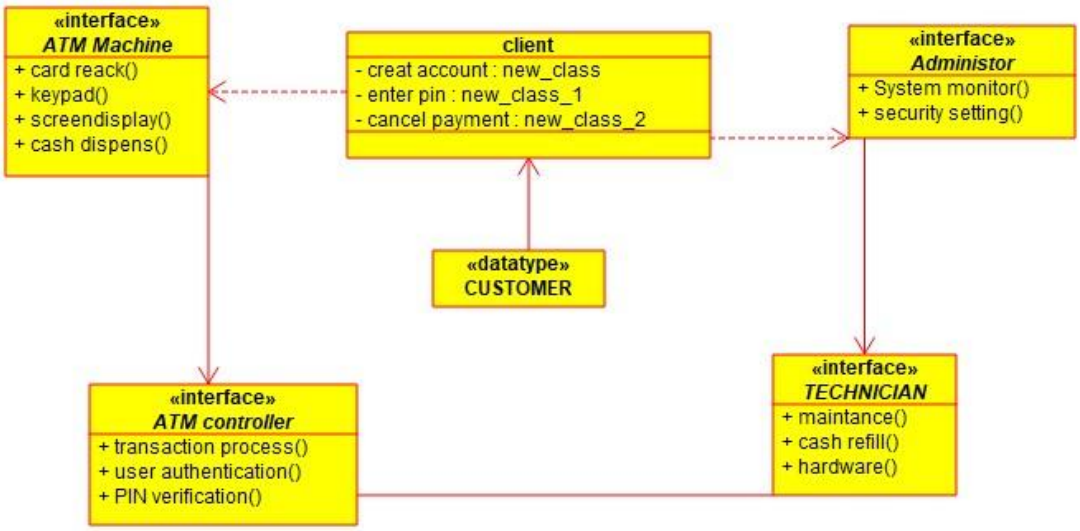
1. Identify the actors: Customer (performs transactions), Banking System (processes transactions), Administrator (manages ATM security and configuration), and Technician (maintains the ATM system).
2. Identify key use cases: Insert Card, Enter PIN, Withdraw Cash, Deposit Cash, Transfer Funds, Check Balance, Print Receipt, Validate PIN, Process Transaction, Update Account, Generate Transaction Report, Monitor ATM, Configure ATM, Enable/Disable ATM, Perform Maintenance, Refill Cash, Fix ATM Issues.
3. Define relationships: Withdraw Cash, Deposit Cash, Transfer Funds, and Check Balance include Enter PIN for authentication; Process Transaction is linked to Banking System; Administrator manages ATM configurations; Technician handles ATM maintenance.
4. Draw the system boundary labeled ATM System, placing actors outside and use cases inside.
5. Connect actors to their respective use cases using association lines to represent interactions.
6. Use include and extend relationships where necessary, such as Enter PIN being included in all transaction-related use cases.
7. Verify completeness and correctness to ensure accurate representation of ATM functionalities and interactions.

Output:

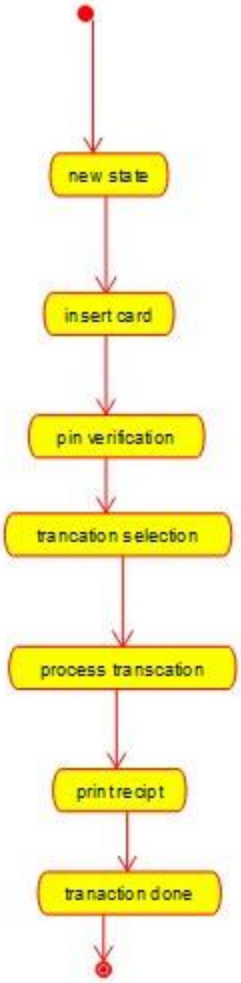
USE CASE DIAGRAM:



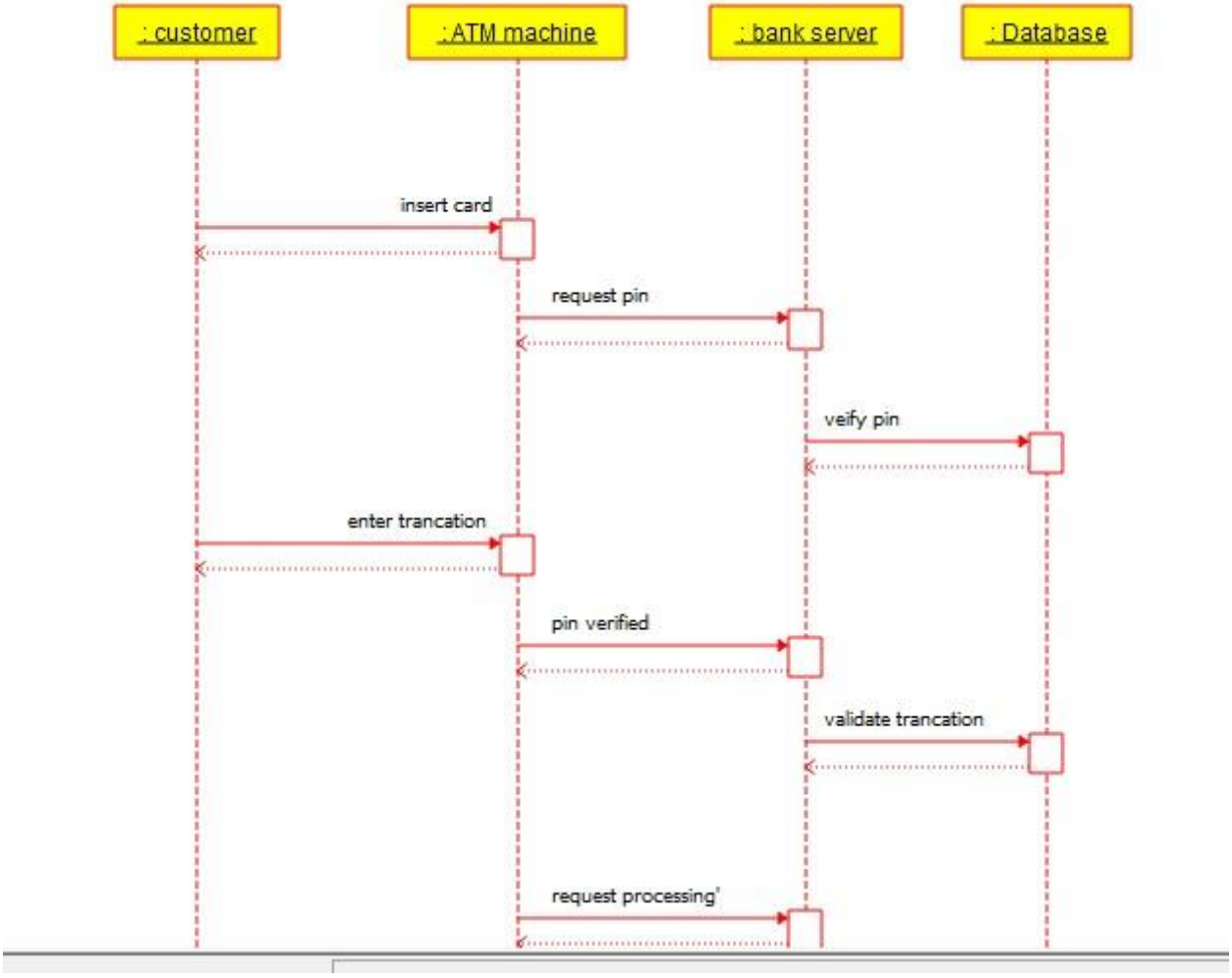
Class diagram:



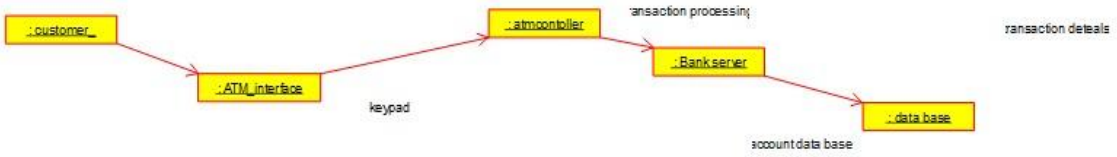
Activity diagram:



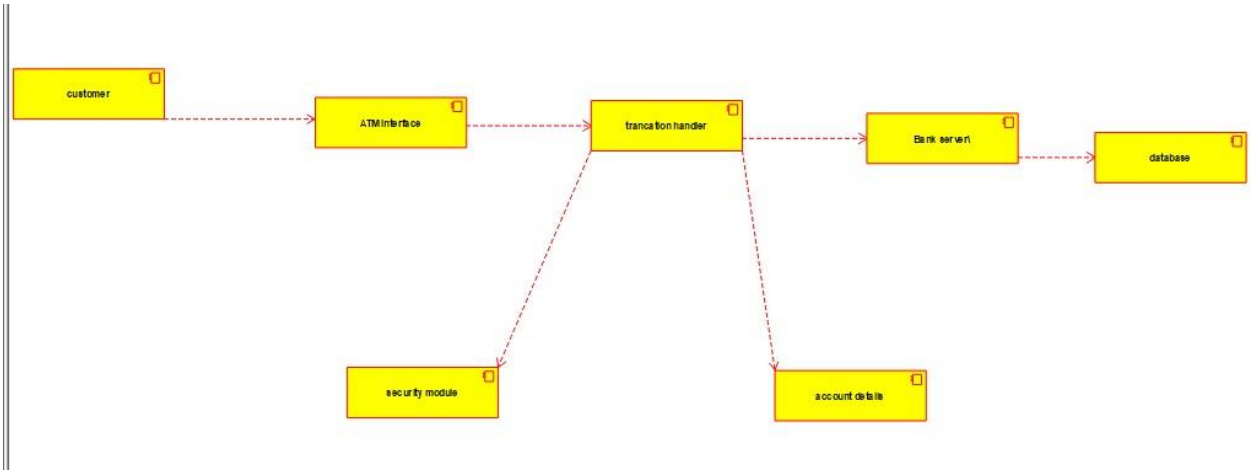
Sequence diagram:


: customer
: ATM machine
: bank server
: Database
insert card
request pin
veify pin
enter trancation
pin verified
validate trancation
request processing'

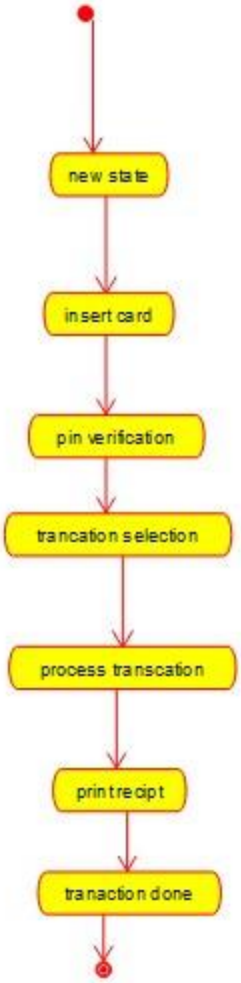
Deployment diagram:



Component diagram:

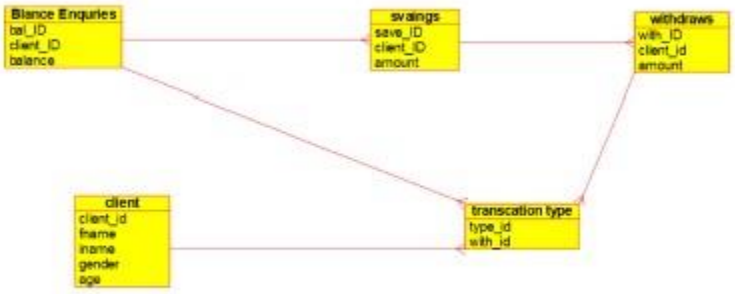


State diagram:



Communication diagram:

ENTITY RELATIONSHIP DIAGRAM:



Result:

Thus the UML diagram for ATM System using CASE tool. The banking system allows a customer to access the financial transactions by ATM System has been developed successfully.