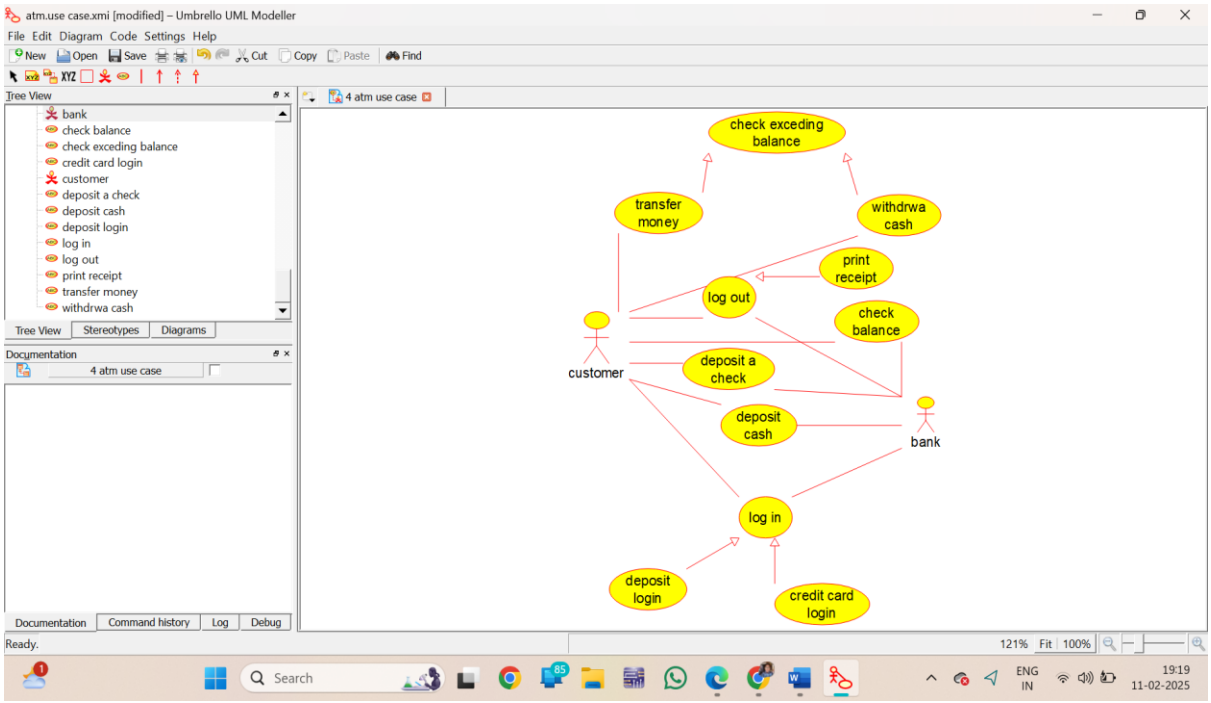
4.) Draw a UML diagram for ATM System using CASE tool. The banking system allows a customer to access the financial transactions by ATM System, it has a step-by-step process describe the work of this process and elaborate the what are the work can do by customer, banking system, administrator, and technicians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

Aim: To design a UML diagram for an ATM System that models interactions between the customer, banking system, administrator, and technicians, ensuring smooth financial transactions.

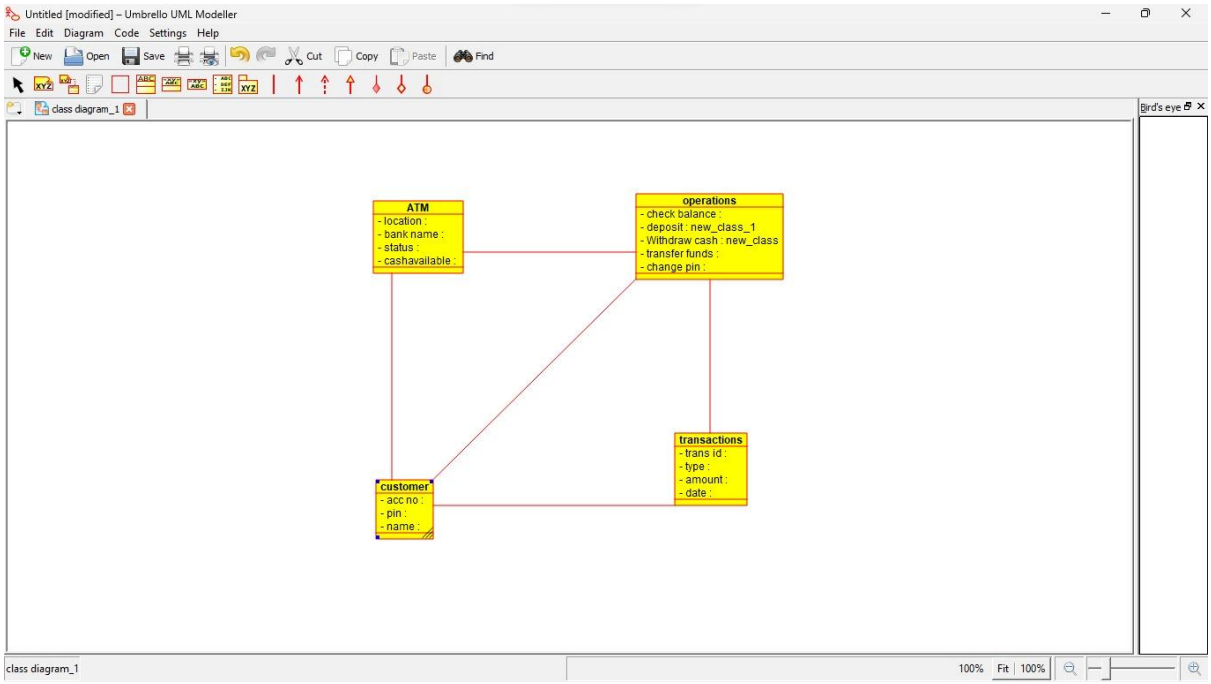
Procedure:

1. Identify Actors – Define external entities interacting with the ATM: Customer, Banking System, Administrator, and Technician.
2. Define Use Cases – List possible actions, such as Withdraw Cash, Check Balance, Deposit Money, Transfer Funds, Manage ATM, and Maintenance.
3. Draw Use Case Diagram – Represent relationships between actors and their actions.
4. Create Class Diagram – Define system classes like ATM, Account, Transaction, Card, Bank Server, etc.
5. Sequence Diagram – Show step-by-step interaction flow for transactions (e.g., cash withdrawal).
6. State Diagram – Represent different ATM states such as Idle, Processing, Transaction Completed, or Error.
7. Verify and Finalize – Ensure completeness and correctness before finalizing the UML model.

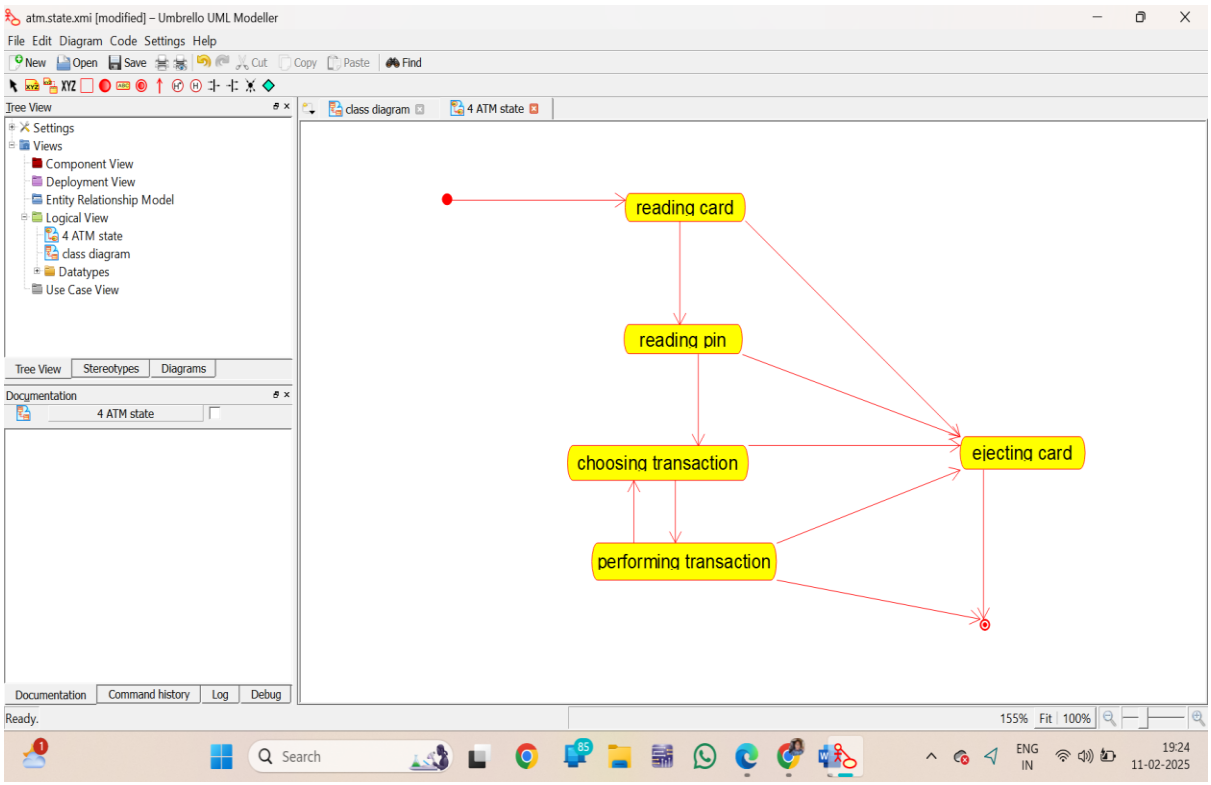
Use Case Diagram:



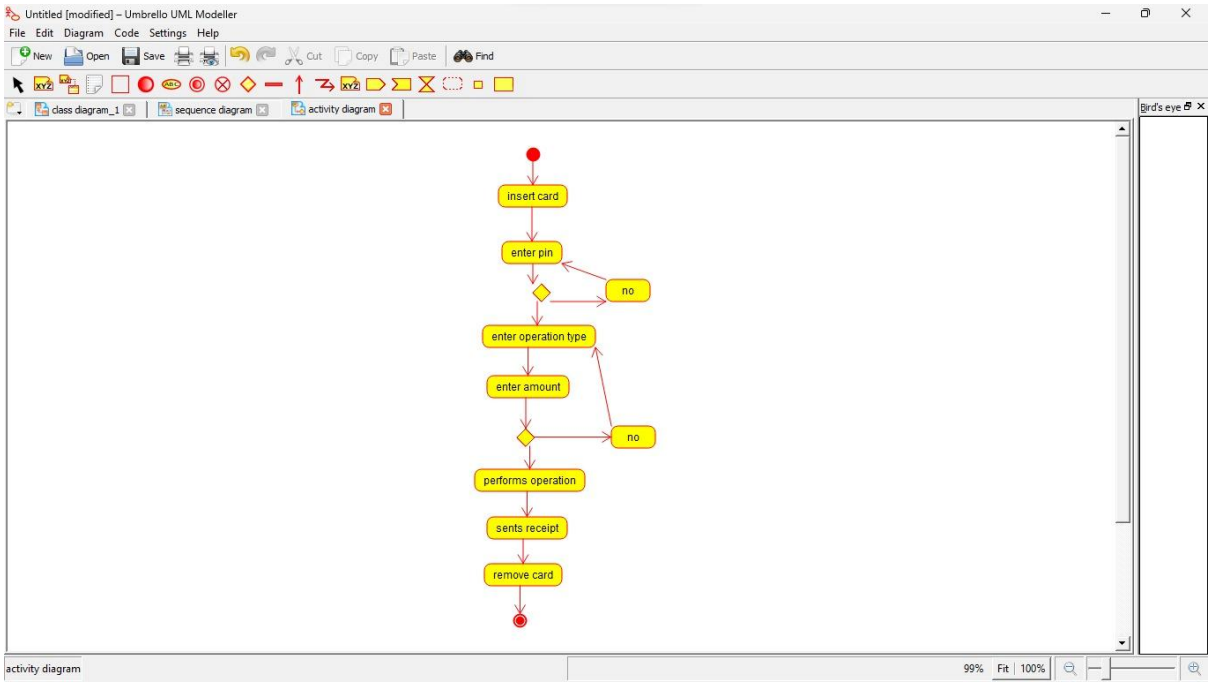
Class Diagram:



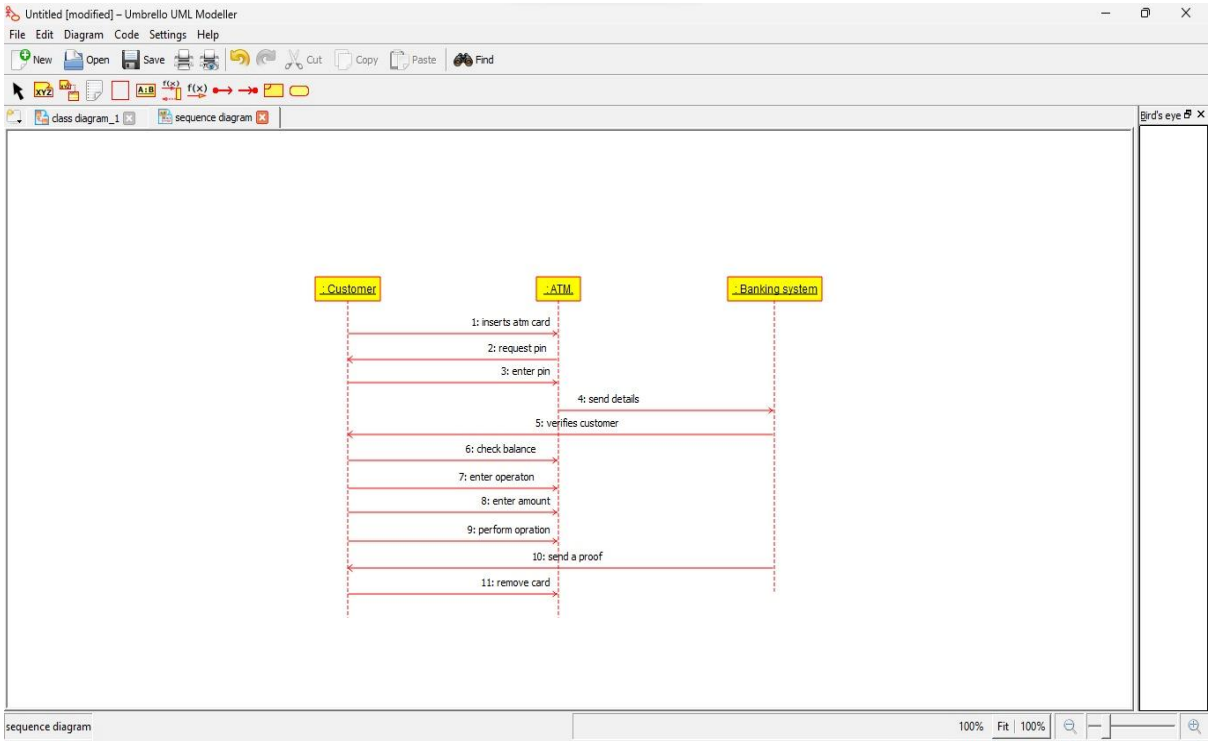
State Diagram:



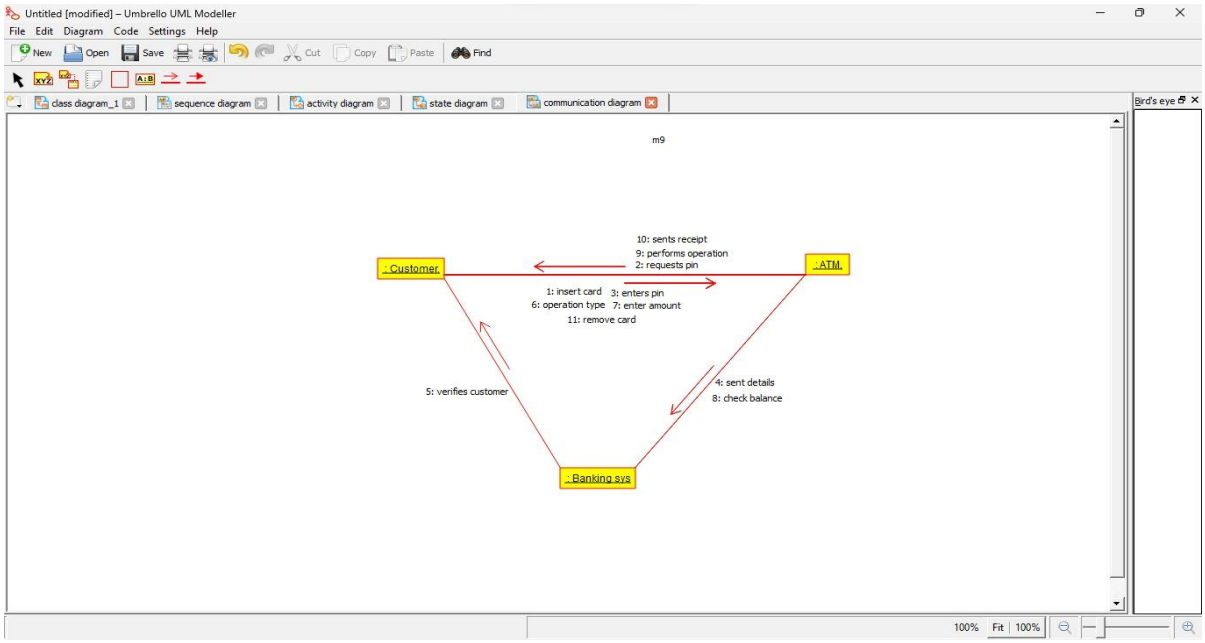
Activity Diagram:



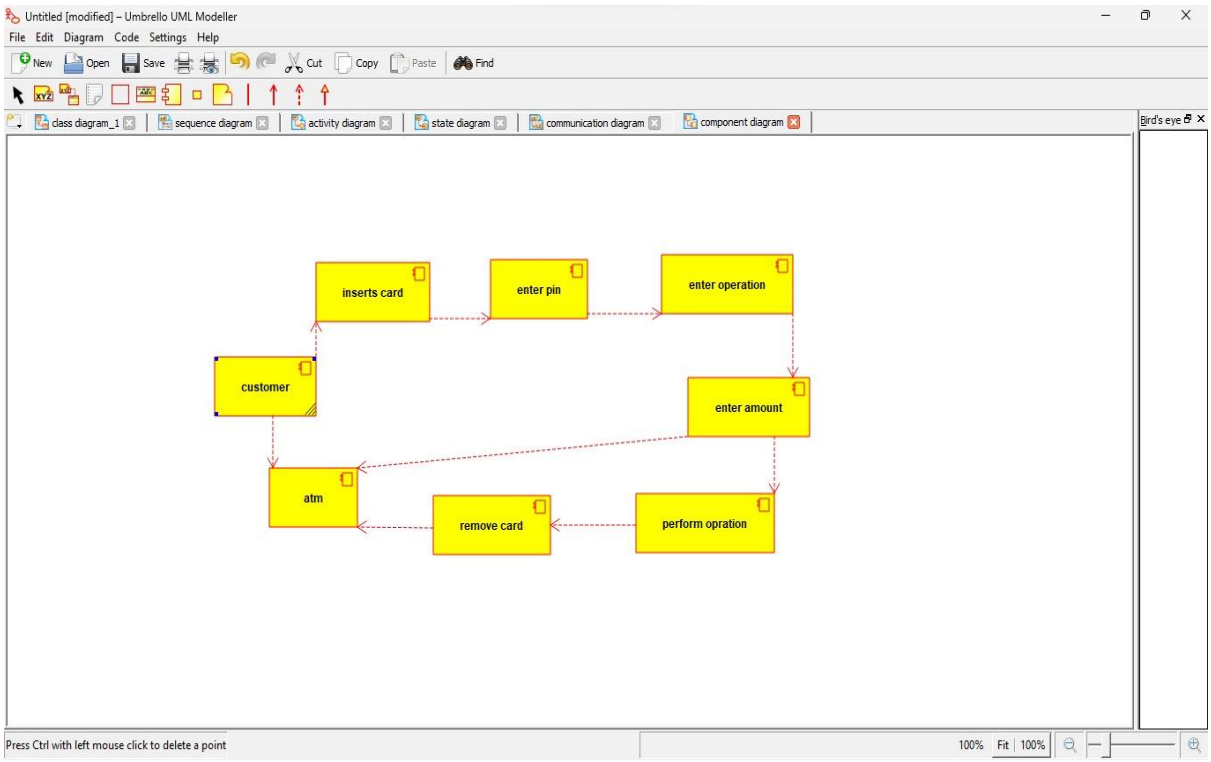
Sequence Diagram:



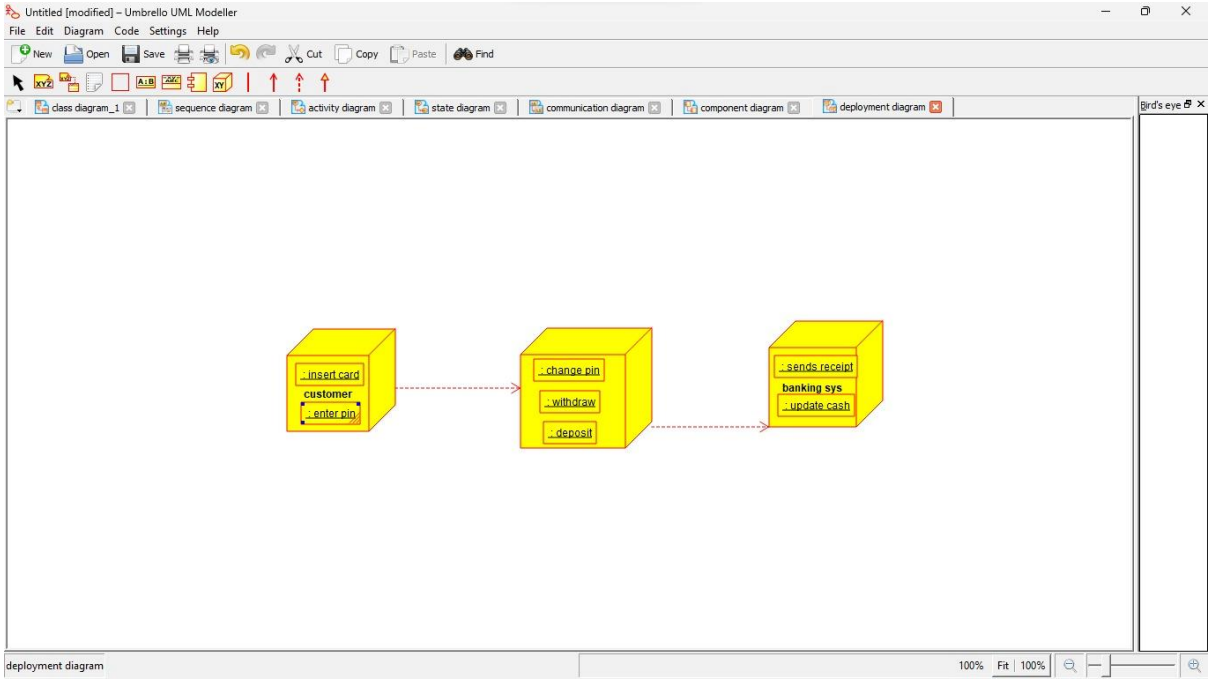
Communication System:



Component Diagram:



Deployment Diagram:



Result:

A detailed UML model is created, visualizing the ATM system's functional and structural aspects, ensuring seamless interaction between users and the banking infrastructure.