

#### **Exercise 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:**

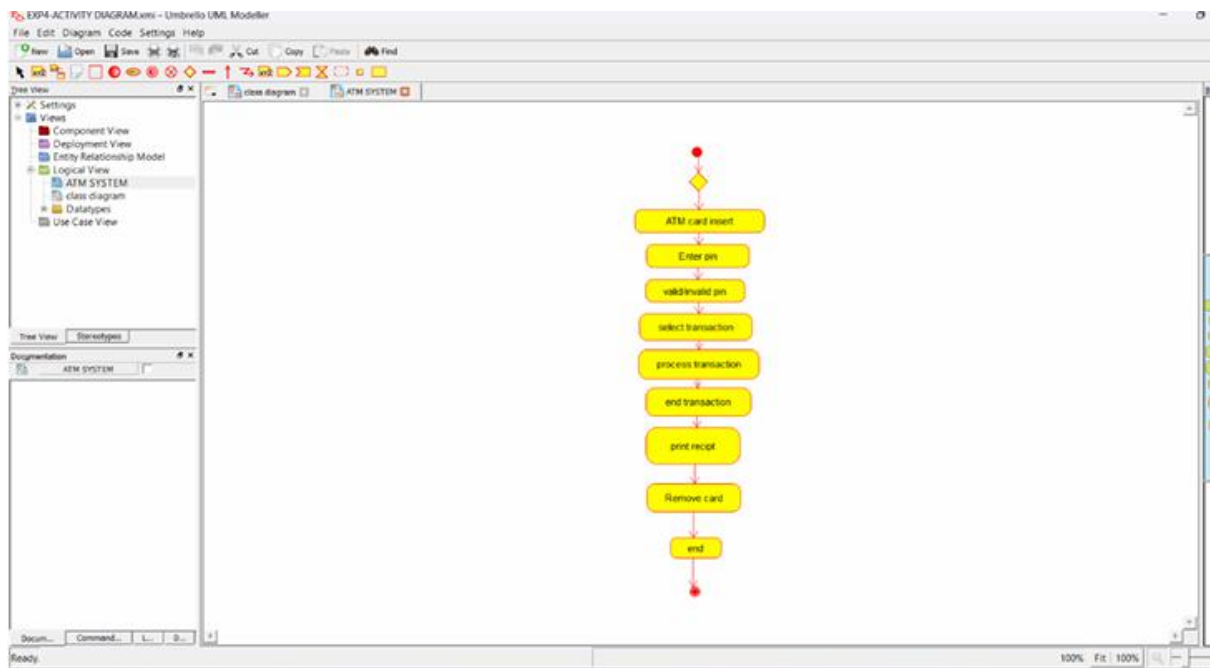
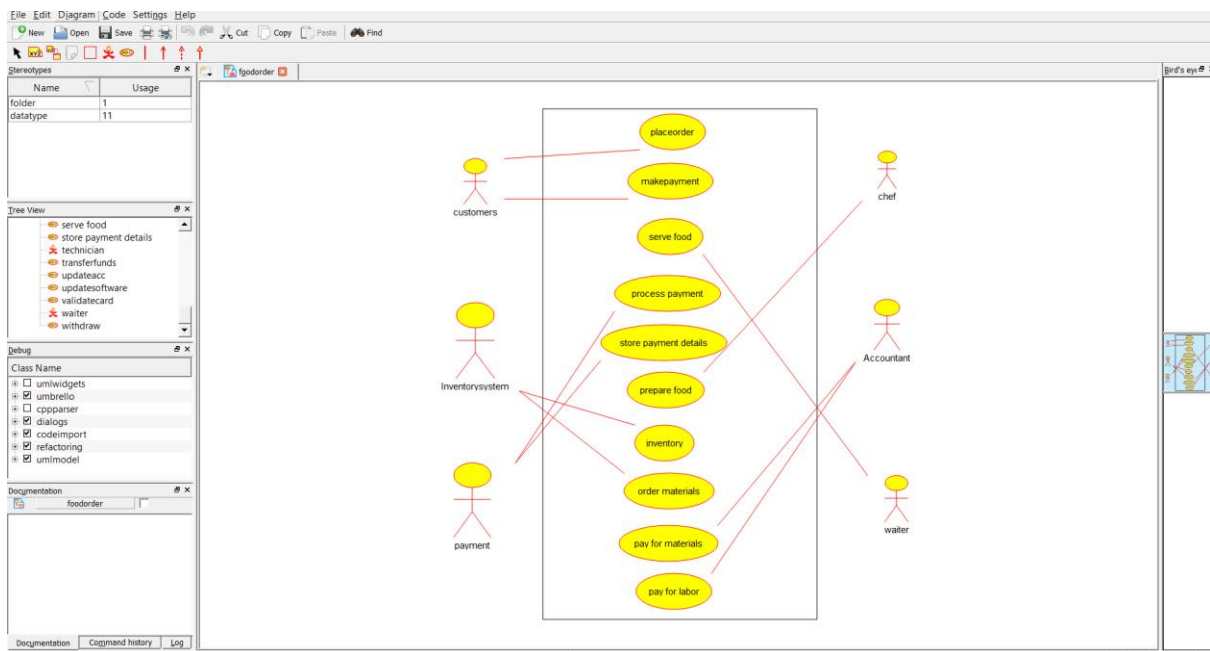
To design a UML Diagram for an ATM System using a CASE tool, representing the interactions between customers, the banking system, administrators, and technicians.

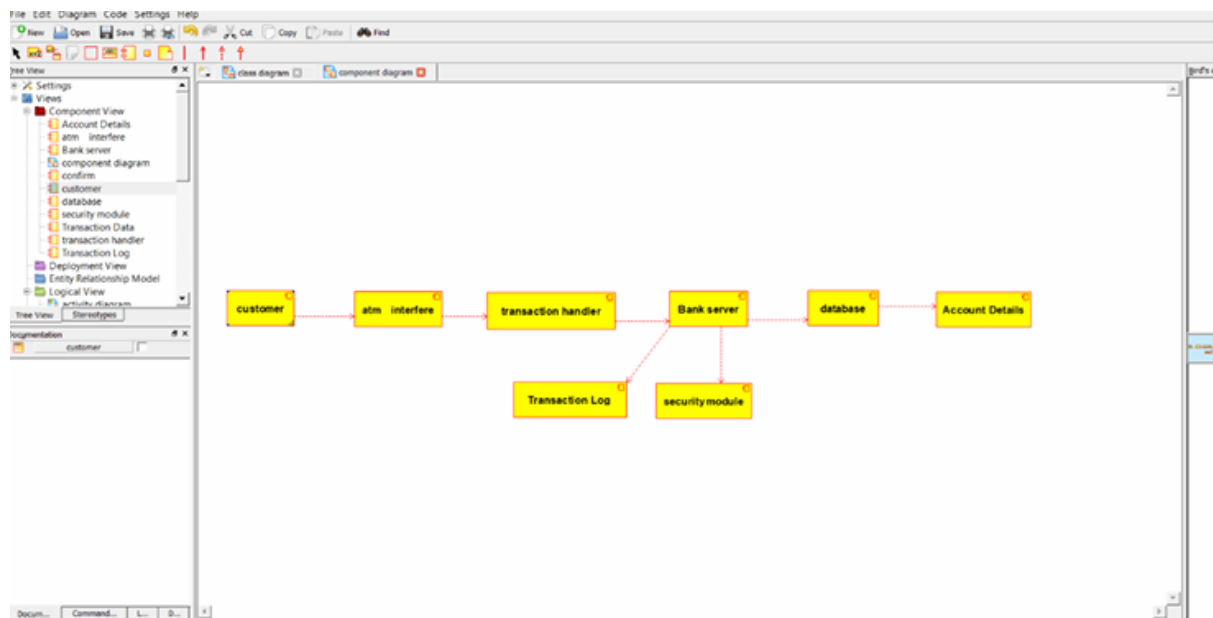
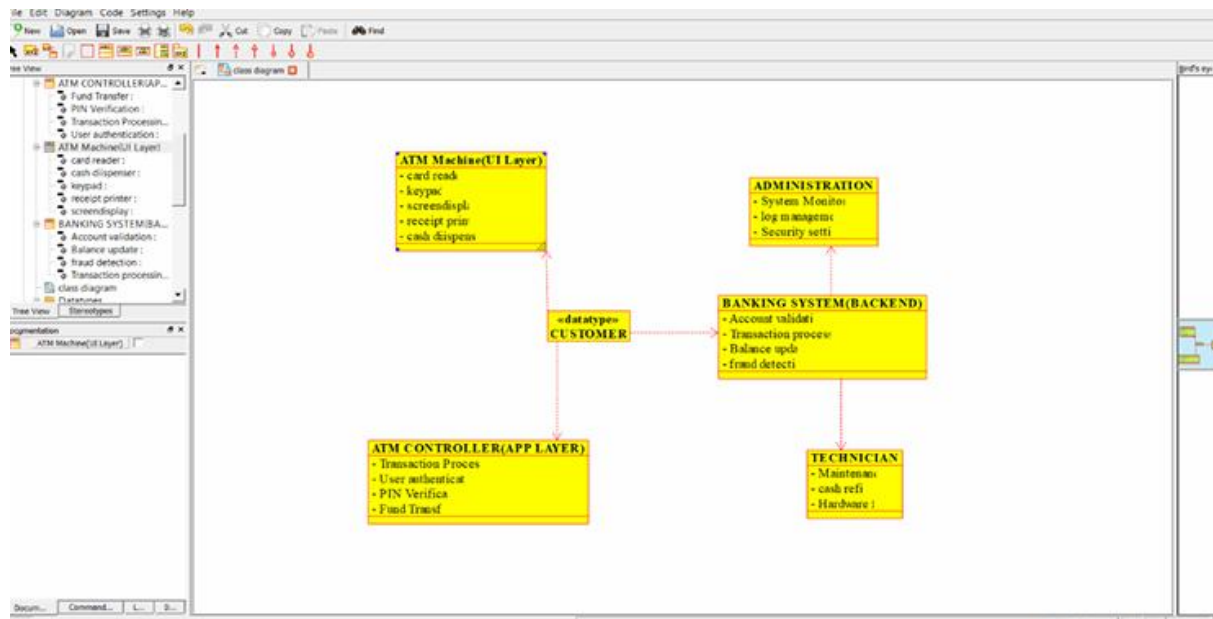
#### **Procedure:**

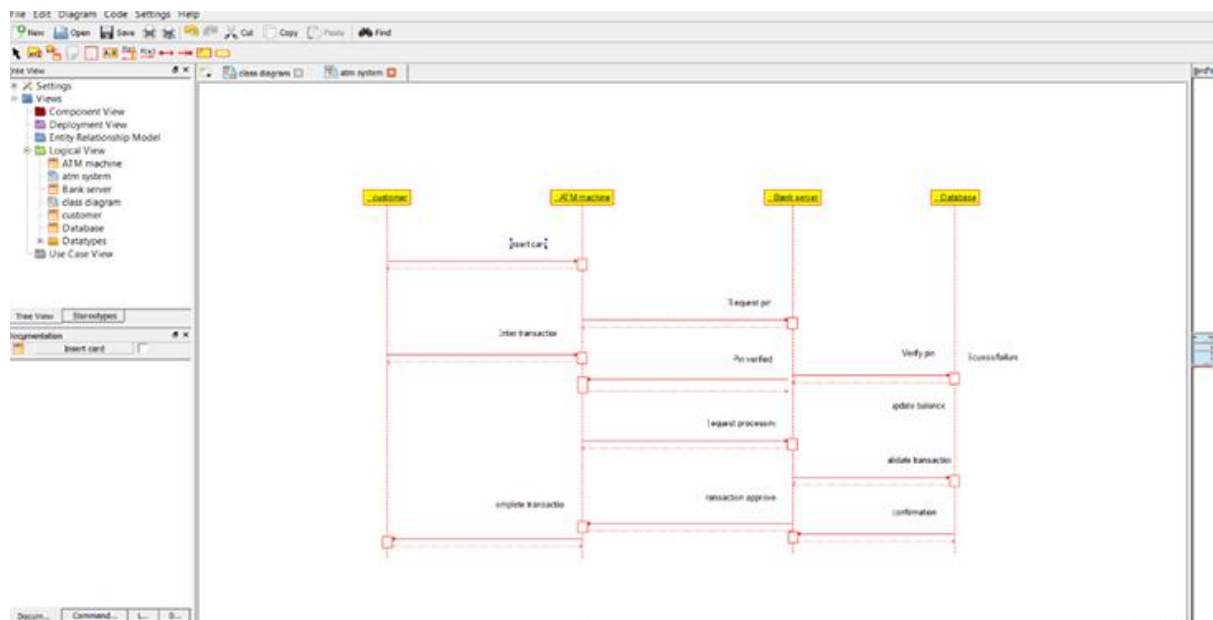
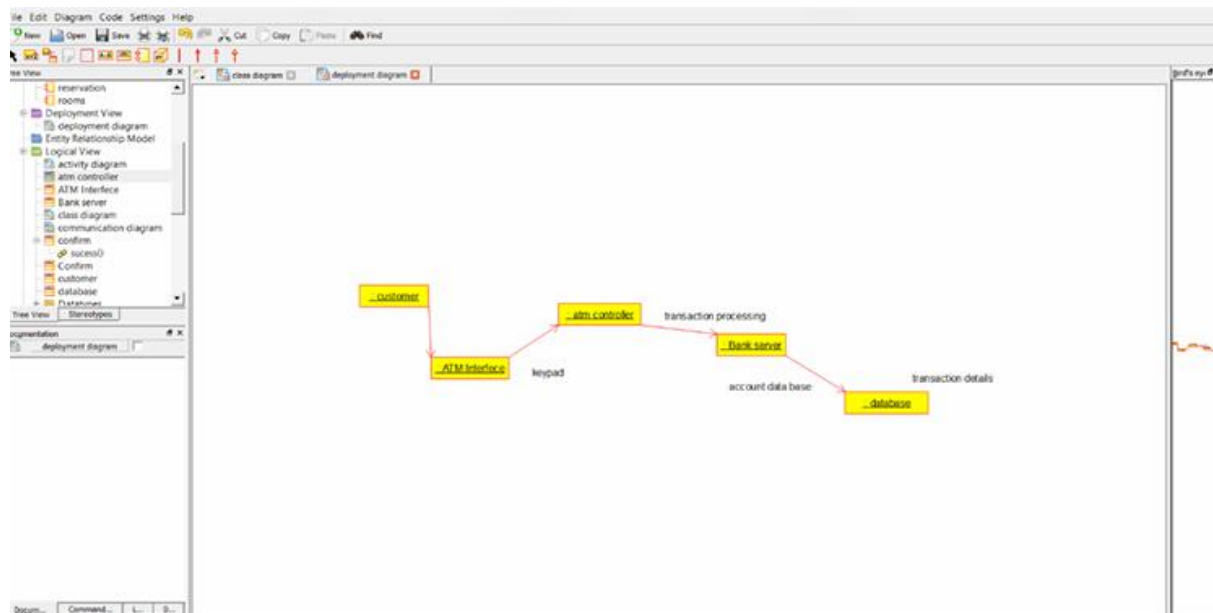
1. Identify Key Entities – Define main components like Customer, ATM Machine, Banking System, Administrator, and Technician.
2. Define Attributes & Methods – Assign attributes (e.g., cardNumber, PIN, accountBalance) and methods (e.g., authenticateUser(), withdrawCash(), checkBalance()).
3. Establish Relationships – Define associations (e.g., a Customer interacts with ATM, ATM connects to Banking System, Administrator manages ATM operations, Technician handles maintenance).
4. Draw the Class Diagram – Represent classes, attributes, methods, and relationships (e.g., one-to-one between Customer and ATM Session, one-to-many between ATM and Transactions).
5. Include Functional Classes – Add Transaction Processing, Authentication, Cash Dispenser, and Account Management as system components.
6. Create Use Case Diagram – Identify actors and use cases
7. Validate and Optimize – Ensure logical correctness, refine relationships, and optimize the diagram for clarity.

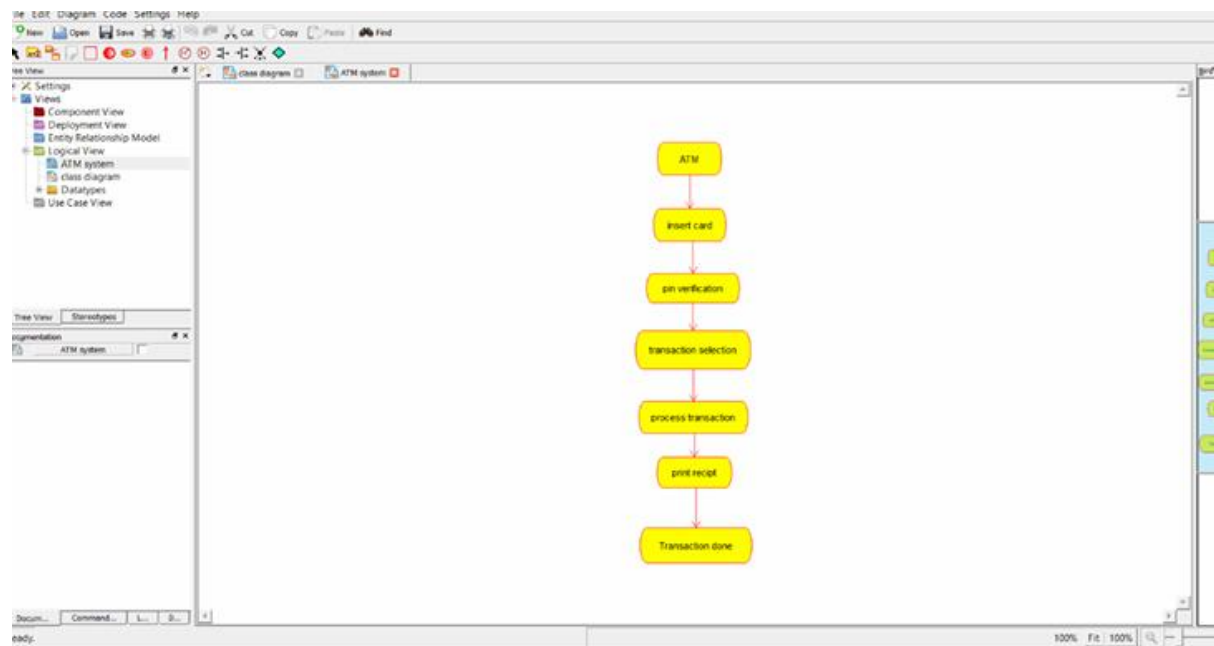
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# Output









## Result

Thus the UML diagram for the ATM System has been implemented successfully.